



OPTICAL GLASS DATA BOOK

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精密プレス用光学ガラス
Optical Glasses for Precision Molding

Code	Glass Type	Page	Code	Glass Type	Page
434950	K-CaFK95	21	670554	K-VC78	51
497815	K-PFK80	22	610579	K-VC79	52
486852	K-PFK85	23	694531	K-VC80	53
459900	K-PFK90	24	756456	K-VC82	54
592683	K-GFK68	25	810410	K-VC89	55
569713	K-GFK70	26	853390	K-VC90	56
518635	K-PBK40	27	887350	K-VC91	57
523623	K-PBK50	28	851416	K-VC99	58
527623	K-PBK60	29	804436	K-VC100	59
525704	K-PMK30	30	749453	K-VC174	60
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592607	K-PSK100	32	811411	K-VC181	62
613590	K-PSK200	33	854406	K-VC185	63
600656	K-PSK300	34	693337	K-CD45	64
595678	K-PSK400	35	723292	K-CD120	65
552720	K-PSK500	36	692296	K-CD300	66
587596	K-CSK120	37	665473	K-LCV93	67
584569	K-CSK158	38	618453	K-LCV161	68
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591607	K-SKLD100	40	907212	K-PSFn1 *	70
587598	K-SKLD120	41	002206	K-PSFn2 *	71
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632638	K-LaFK60	48	543629	K-PG375	78
639634	K-LaFK63	49			
657623	K-LaFK65	50			

* モールド成形可能なガラス転移点を有していますが、成形装置などの条件によってはレンズ成形難易度が特に高い硝材です。
詳細はお問い合わせください。

Glass material marked with * has glass transition point that is applicable to precision molding. However, the moldability can be more difficult even if same molding machine would be used.

For more details, please contact us.

光学ガラス一覧表
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559539	K-BPG2	81	743492	K-LaFn5	115
618634	K-PSKn2	82	720460	K-LaFn11	116
613586	K-SK4	83	755524	K-LaSKn1	117
589612	K-SK5	84	806407	K-LaSFn1	118
607595	K-SK7	85	805396	K-LaSFn2	119
603607	K-SK14	86	800423	K-LaSFn3	120
623581	K-SK15	87	785437	K-LaSFn4	121
620603	K-SK16RH	88	804466	K-LaSFn6	122
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617540	K-SSK1	91	835427	K-LaSFn8W	125
615511	K-SSK3	92	816467	K-LaSFn9	126
618551	K-SSK4	93	816444	K-LaSFn10	127
620498	K-SSK9	94	834373	K-LaSFn14	128
624471	K-BaF8	95	788474	K-LaSFn16	129
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683445	K-BaFn1	97	850324	K-LaSFn21	131
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651383	K-BaSF4	99	911352	K-LaSFn23	133
603425	K-BaSF5	100	717295	K-SFLD1	134
643581	K-LaK6	101	755275	K-SFLD4	135
652583	K-LaK7	102	805254	K-SFLD6	136
713539	K-LaK8	103	689311	K-SFLD8	137
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赤外透過ガラス
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751431	K-GIR140	145	414010	K-FIR100UV	147

1 光学ガラスの名称 Glass Type

光学ガラスの名称は6桁の数値と硝種名で表示されています。数値の上位3桁は屈折率(nd)の小数点以下4桁目を四捨五入した3桁を表わし、下位3桁はアッベ数(νd)3桁を表わしています。硝種名はnd- νd 光学ガラス一覧表からショット社によって分類され名付けられた硝種名か、または弊社によって名付けられた硝種名が記載され下記の要領で表示されています。なお、硝種名が”K-”で始まる材料は鉛(Pb)とヒ素(As)を含みません。

SCHOTT Type と表示されている場合でもショット社の光学ガラスと同じ特性を示すものではありませんのでご注意下さい。

Each glass type is identified by its refractive index, nd, and abbe value, νd in six digit. The reference number is extracted from the first three decimal of the nd and the second three from the same of νd . The nd- νd diagram shows the grouping of glass according to their optical properties. Glass names are indicated in accordance with a grouping by SCHOTT (indicating “SCHOTT Type” or SUMITA’s name whose glass types are originally developed by us). “K-” are eco-friendly glass with Lead (Pb) and Arsenic (As) free.

例 Example:

nd = 1.51633 νd = 64.1
516641
SCHOTT Type
K-BK7

nd = 1.55920 νd = 53.9
559539
K-BPG2

nd = 2.00170 νd = 20.6
002206
K-PSFn2

2 光学的性質 Optical Properties

2. 1 屈折率 Refractive Indices

屈折率は15本のスペクトル線毎に、複数の製造ロットの平均値が小数点以下5桁までの数値で表示されています。データシートの屈折率の欄には各スペクトル線の記号の右側にスペクトル線の波長がnm単位で小数点以下第2位を4捨5入して表示されています。なお、内部透過率(厚さ10mm)が低い場合には表示されないこともあります。当社の屈折率表示は 1.25°C/hでアニールした時の値です。
※アニールの冷却スピードにより、屈折率は変動します。

Refractive index values, n , are quoted per 15 spectral wavelengths extending from 365.02nm to 1548.1nm for each glass type in this catalogue. If internal transmittance at a spectral line is low, there is no “ n ” indication. Indicated each index is the value after fine annealing 1.25°C/h.

※A refractive index is subject to change due to the cooling speed of annealing.

Spectral Line	t	A'	r	C	C'	D	d
Wavelength (nm)	1013.98	768.195	706.519	656.273	643.847	589.294	587.562
Light Source	Hg	K	Hg	H	Cd	Na	He

Spectral Line	e	F	F'	g	h	i
Wavelength (nm)	546.074	486.133	479.991	435.834	404.656	365.015
Light Source	Hg	H	Cd	Hg	Hg	Hg

2. 2 分散式の常数 Constants of Dispersion Formula

分散式の常数は0.365～1.548 μm の波長の範囲内でデータシートに記載されていない任意の波長に対応する屈折率を求める場合に非常に有用です。次の分散式に分散式の常数($A_0 \sim A_5$)を代入して任意の波長(λ)における屈折率(n_λ)を算出することが出来ます。ただし、任意の波長は μm の単位で、小数点以下5桁までの数値をご使用下さい。

Constant of dispersion formula is very useful for calculating an “n” for a selective wavelength which is not shown in the data sheet within a range of wavelength 0.365 ~ 1.548 μm . When these constants are used with the following equation, refractive indices for wavelengths (specified in microns to an accuracy of 0.00001 μm), will be determined to an accuracy of 1×10^{-5} .

$$n_\lambda^2 = A_0 + A_1 \lambda^2 + A_2 \lambda^{-2} + A_3 \lambda^{-4} + A_4 \lambda^{-6} + A_5 \lambda^{-8}$$

$A_0 \sim A_5$: 分散式の常数 Constants of dispersion formula

λ : 波長(μm) Wavelength (μm)

n_λ : λ (μm)での屈折率 Refractive indices for wavelength λ (μm)

2. 3 屈折率の温度係数 Temperature Coefficients of Refractive Index

1548nm, d 線, g 線の各温度範囲における相対屈折率と絶対屈折率の温度係数が表示されています。表示精度は $\pm(0.4 \times 10^{-6} + |dn/dT| \times 0.07)$ です。

Temperature coefficients of relative and absolute refractive index at 1548nm, d and g-line in each are indicated in the data sheet.

Accuracy is $\pm(0.4 \times 10^{-6} + |dn/dT| \times 0.07)$.

$$\left[\frac{dn}{dT} \right]_{rel.}$$

相対屈折率の温度係数(空気中)

Temperature coefficients of relative refractive index (in the air)

$$\left[\frac{dn}{dT} \right]_{abs.}$$

絶対屈折率の温度係数(真空中)

Temperature coefficients of absolute refractive index (in vacuum)

2. 4 屈折率の温度係数の分散常数 Constants of Dispersion dn/dT abs.

屈折率の温度係数の分散常数は、 $0.365 \sim 1.548 \mu\text{m}$ 範囲内でデータシートに記載されていない任意の波長に対応する絶対屈折率の温度係数を求める場合に有効です。次の温度係数の分散式に常数 $D_0, D_1, D_2, E_0, E_1, \lambda_{TK}$ と屈折率 $n_{(\lambda, T_0)}$ を代入して任意の温度における絶対屈折率の温度係数を算出することが出来ます。

Constants of Dispersion dn/dT abs. are very useful to calculate the temperature coefficients of absolute refractive index at any wavelength in $0.365 \sim 1.548 \mu\text{m}$.

$$\left[\frac{dn}{dT} \right]_{abs.} = \frac{n_{(\lambda, T_0)}^2 - 1}{2n_{(\lambda, T_0)}} \left(D_0 + 2D_1 \cdot \Delta T + 3D_2 \cdot \Delta T^2 + \frac{E_0 + 2E_1 \cdot \Delta T}{\lambda^2 - \lambda_{TK}^2} \right)$$

$$\left[\frac{dn}{dT} \right]_{abs.} \quad \text{絶対屈折率の温度係数}$$

Temperature coefficients of absolute refractive index

$D_0, D_1, D_2, E_0, E_1, \lambda_{TK}$	温度係数の分散常数	Constant of Dispersion dn/dT
λ	波長(μm)	Wavelength(μm)
T_0	基準温度(20°C)	Basic Temperature(20°C)
ΔT	T_0 との温度差	Difference from T_0
$n_{(\lambda, T_0)}$	屈折率	Refractive Index

2. 5 代表的光学恒数 Typical Optical Constants

代表的光学恒数として屈折率(n_d, n_e)、主分散($n_F - n_C, n_{F'} - n_{C'}$)、およびアッベ数(ν_d, ν_e)が見出し欄に表示されています。

Refractive Indices (n_d, n_e), Principal Dispersion ($n_F - n_C, n_{F'} - n_{C'}$) and Abbe number (ν_d, ν_e) are indicated at each head line.

$$\nu_d = \frac{n_d - 1}{n_F - n_C} \quad \nu_e = \frac{n_e - 1}{n_{F'} - n_{C'}}$$

2. 6 部分分散および部分分散比 Partial Dispersion and Partial Dispersion Ratio

2. 6. 1 部分分散 Partial Dispersion

12種類の部分分散($n_X - n_Y$)が、このデータシートに表示されています。

12 Partial Dispersions ($n_X - n_Y$) are indicated.

2. 6. 2 部分分散比 Partial Dispersion Ratio

部分分散比は $\theta_{x \cdot y}$ と $\theta'_{x \cdot y}$ を算出し、 $\theta_{x \cdot y}$ が8種類、 $\theta'_{x \cdot y}$ が4種類表示されています。

8 kinds of $\theta_{x \cdot y}$ and 4 kinds of $\theta'_{x \cdot y}$ are indicated.

$$\theta_{x \cdot y} = \frac{n_x - n_y}{n_F - n_C} \quad \theta'_{x \cdot y} = \frac{n_x - n_y}{n_{F'} - n_{C'}}$$

n_x, n_y : 各スペクトル線の屈折率 Refractive indices of spectra line

2. 7 異常分散性 Abnormal Dispersion

縦軸に部分分散比($\theta_{x \cdot y}$)、横軸にアッベ数(ν_d)としたグラフ上で511604・(K7)と620364・(F2)の2硝種を選び、この2硝種を結ぶ直線を標準線とします。異常分散性は標準線とそれぞれの硝種の部分分散比との差を $\Delta \theta_{x \cdot y}$ として表示されています。 $\Delta \theta_{x \cdot y}$ の絶対値が大きければ大きい程、異常分散性が大きいと言われ、特に2次スペクトルの除去には有効です。

Selecting 511604/(K7) and 620364/(F2) as the standard optical glass and configure a standard line with the straight line which links the location of the points of these standard optical glasses in the diagram (X-axis Abbe Value ν_d , Y-axis: Partial Dispersion Ratio). The Abnormal Dispersion is expressed by differences between the position of each glass material and the standard line in the diagram.

The bigger absolute value of $\Delta \theta_{x \cdot y}$, the bigger abnormal dispersion. When glass has a big abnormal dispersion value, this material has good property for removing the secondary spectral.

	511604(K7)	620364(F2)
ν_d	60.4	36.4
$\theta_{g,F}$	0.543	0.583

2. 8 内部透過率(τ) Internal Transmittance

内部透過率は光学ガラスの反射損失を含まない分光透過率のことを言います。試料厚み3mmおよび10mmまたは10mmおよび25mmの内部透過率は、試料厚み3mmと10mmの反射損失を含む分光透過率より、算出しています。ただし、小数点以下第3位の数値は参考値として御了承下さい。

The internal transmittance consists of the spectral transmittance excluding the reflection loss of the optical glass. The internal transmittances of 3mm and 10mm or 10mm and 25mm thick are calculated from the spectral transmittance of specimens of 3mm and 10mm thick including the reflection loss. However, the thousandth and under digits are referential values.

$$\log \tau = - \frac{\log T_1 - \log T_2}{\Delta d} \times L$$

τ : 厚さ L(mm)ガラスの内部透過率

Internal transmittance of glass of L mm thick

T_1, T_2 : 試料の厚さ 3mm と 10mm のガラスの反射損失を含む分光透過率

Spectral transmittance including the reflection loss of specimens of 3mm and 10mm thick

Δd : 測定試料の厚み差

Thickness difference of two specimens

3 熱的性質 Thermal Properties

線膨張係数、転移点(T_g)および屈伏点(A_t)は、炉内温度精度が±1℃の示差熱膨張計を用いて、毎分5℃の昇温速度で試料(φ4×20mm)を加熱し、温度とガラスの伸びを測定して求めます。

The linear thermal expansion coefficient, the transformation point (T_g) and the yielding point (A_t) are obtained by measuring the temperature and expansion of a specimen, which is heated at a constant speed of 5℃ per minutes, with a differential dilatometer with an electric furnace with an accuracy of ±1℃.

3. 1 線膨張係数(α) Linear Expansion Coefficient

線膨張係数は100～300℃と－30～70℃の平均線膨張係数を示し、10⁻⁷/℃の単位で表示されています。精密プレス用光学ガラスにおいて、300℃よりも温度範囲の狭い数値が記載されている硝材もあります。

Linear Expansion Coefficient indicates the mean linear thermal expansion at the temperature ranges of 100℃ ~ 300℃ and -30℃ ~ 70℃ with the unit of 10⁻⁷/℃. Among the materials for precision molding, in some cases, temperature ranges lower than 300℃ are indicated.

$$\alpha = \frac{dL}{L \times dT} + Q$$

α : 平均線膨張係数(℃⁻¹)

Mean coefficient of linear thermal expansion (℃⁻¹)

L : 室温における試料の長さ(mm)

Specimen length (mm) at room temperature

dL : 温度範囲で加熱したときの長さの変化(mm)

Specimen dilatation (mm) during heating

dT : dL を測定したときの温度差(℃)

Temperature range (℃) to cause dL

Q : 硝材と同じ温度範囲における石英ガラスの平均線膨張係数(℃⁻¹)

Mean coefficient of linear thermal expansion of fused silica in the same range(℃⁻¹)

3. 2 転移点(T_g) Transformation Point

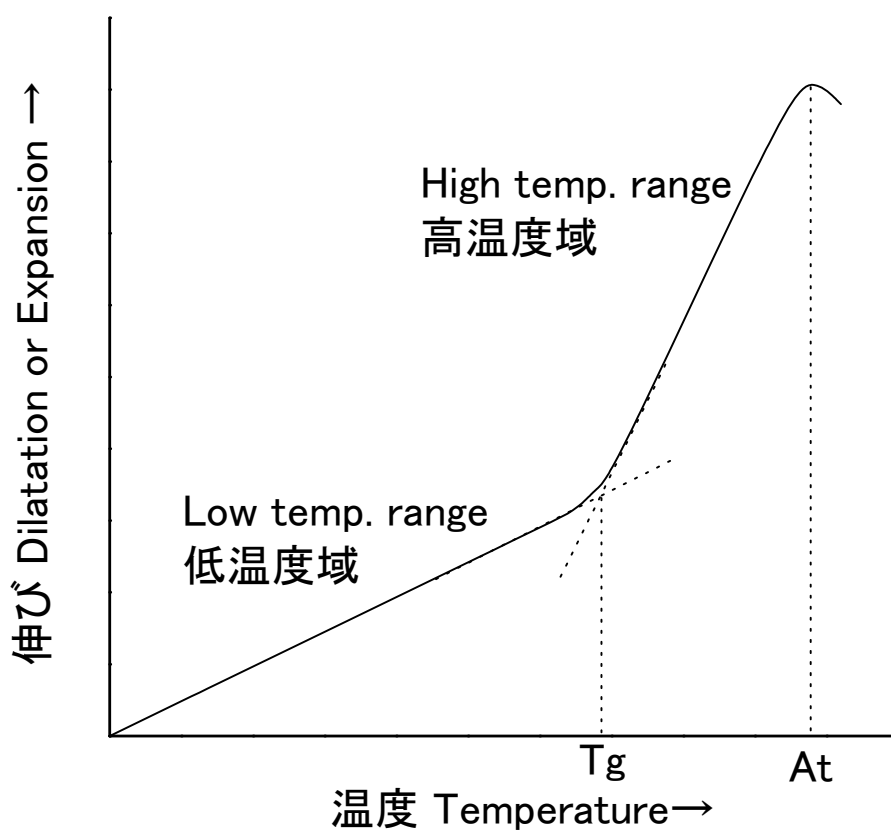
転移点(ガラス転移温度)は図に示すように、直線部分の延長の交点に対応する温度が表示されています。

Transformation point (Transformation temperature) is obtained by extrapolation of two thermal expansion curves until intersecting each other. Refer to Figure.

3. 3 屈伏点(A_t) Yielding Point

屈伏点は伸びが停止し、収縮が始まる温度が表示されています。

The yielding point is the temperature where the thermal expansion stops and the glass begins to soften.



3. 4 熱伝導率(λ) Thermal Conductivity

室温(25°C)の熱伝導率 λ は、熱拡散率 α 、密度 ρ 、比熱 C_p より求められた値が表示されています。

Thermal conductivity at room temperature (25 °C) is calculated on thermal diffusivity, density and specific heat.

$$\lambda = \alpha \rho C_p$$

λ : 熱伝導率(W m⁻¹ K⁻¹)

Thermal Conductivity (W m⁻¹ K⁻¹)

α : 熱拡散率 α (m² s⁻¹)

Thermal Diffusivity (m² s⁻¹)

ρ : 密度(kg m⁻³)

Density (kg m⁻³)

C_p : 比熱(J kg⁻¹ K⁻¹)

Specific Heat (J kg⁻¹ K⁻¹)

3. 5 比熱(C_p) Specific Heat

比熱 C_p (J kg⁻¹ K⁻¹)は DSC 法により測定した25°Cでの値が表示されています。

Specific heat at 25 °C is determined with DSC method (Differential Scanning Calorimetry).

4 機械的性質 Mechanical Properties

4. 1 ヌープ硬さ(Hk) Knoop Hardness

ヌープ硬さは、対稜角が172度30分と130度のダイヤモンド四角錐圧子を用いて15秒間加圧し、試料の測定面に四角錐の窪みがついたときの荷重(0. 98N)を、永久窪みが長い方の対角線の長さから求めた窪みの投射面積で割った値として表示されています。又、ヌープ硬さは次の表によって分類され、その級も表示されています。

The knoop hardness is determined with the quotient of load, causing a pyramidal indentation on the testing surface with a diamond quadrangular pyramid indenter having vertex angles of 172 degrees 30 minutes and 130 degrees, divided by projected surface area, that is found from the longer diagonal length of indentation. Knoop hardness is designated with its class.

$$Hk = \frac{1.451 \times F}{L^2}$$

Hk : ヌープ硬さ Knoop hardness

F : 荷重(N) Load (N)

L : 窪みの長い方の対角線の長さ(mm)

Longer diagonal length of indentation (mm)

級 Class	ヌープ硬さ Knoop hardness
1	<150
2	150 ≤ ~ <250
3	250 ≤ ~ <350
4	350 ≤ ~ <450
5	450 ≤ ~ <550
6	550 ≤ ~ <650
7	650 ≤

4. 2 ビッカース硬さ(Hv) Vickers Hardness

ビッカース硬さは、対面角が136度のダイヤモンド四角錐圧子を用いて15秒間加圧し、試料の測定面に四角錐の窪みがついたときの荷重(0. 98N)を永久窪みの表面積で割った値として表示されています。

The vickers hardness is determined with the quotient of load value, which is applied for 15 sec. by means of diamond quadrangular pyramid indenter with vertex angle of 136 degrees on the testing surface, causing an indentation on it, divided by the value of permanent surface area of the indentation.

$$H_v = \frac{0.189 \times F}{d^2}$$

Hv : ビッカース硬さ Vickers hardness

F : 荷重(N) Load (N)

d : 窪みの対角線の長さ(mm) Diagonal length of indentation (mm)

4. 3 摩耗度(Ha) Abrasion

摩耗度は、一定形状の試料(30×30×10mm)を毎分60回転する回転円板に荷重(9. 8N)を加えながら押し付けて、20mlの水に砥粒(#800)を含むラップ液で5分間ラッピングしたときの摩耗減量と、同一形状の日本光学硝子工業会指定の標準ガラスを、同一条件で試験したときとの摩耗減量(体積)の比を100倍した値で表示されています。

The abrasion is determined with 100 times of the ratio of wear loss (volume) of specimen to one of standard sample, when pressed on a rotating disc and abraded with an abrading compound.

$$H_a = \frac{W / S}{W_0 / S_0} \times 100$$

Ha : 摩耗度 Abrasion

W, W₀ : 試料および標準試料の摩耗質量(g)

Wear mass of specimen and standard sample (g)

S, S₀ : 試料および標準試料の比重

Specific gravity of specimen and standard sample

4. 4 弾性係数 Elastic Modules

ヤング率(E)、剛性率(G)、体積弾性率(K)およびポアソン比(σ)は、室温において十分に徐冷された試料(30×30×10mm)内を通過する5MHzの超音波パルスの縦波と横波の速度を測定し、算出しています。ただし、体積弾性率はデータシートには表示されていません。

Young's modulus, Modulus of Rigidity and Poisson ratio are measured the velocity of longitudinal / transverse waves of 5 MHz ultrasonic which passes through annealed specimen (30x30x10mm) in room temperature.

$$E = \frac{9GK}{G + 3K} \quad G = \rho V_t^2$$

$$K = \rho V_l^2 - \frac{4}{3} G \quad \sigma = \frac{E}{2G} - 1$$

E : ヤング率(N/m²) Young's modulus (N/m²)

G : 剛性率(N/m²) Modulus of rigidity (N/m²)

K : 体積弾性率(N/m²) Bulk modulus (N/m²)

σ : ポアソン比 Poisson ratio

ρ : 密度(kg/m³) Density (kg/m³)

V_l : 縦波の速度(m/s) Velocity of longitudinal wave (m/s)

V_t : 横波の速度(m/s) Velocity of transverse wave (m/s)

5 化学的性質 Chemical Properties

5. 1 耐水性(粉末法) (RW) Water Resistance

耐水性は試料を粉碎し、補助網ふるい(710 μ m)を通過した試料粉末の内、標準網ふるい(600 μ m)を通過し、次の標準網ふるい(425 μ m)に止まった粉末をその試料の比重グラムだけ白金製カゴに入れる。石英ガラス製冷却器付き丸底フラスコ内に純水(PH6. 5～7. 5)80ml中を入れ100℃の沸騰水浴中に10分間保持後、白金製カゴを丸底フラスコ内に入れ60分間加熱して処理します。その後120～130℃で乾燥した後、放冷後室温で秤量し、試料の減量率(wt%)を算出した値が次の表によって分類されて、その等級が表示されています。

Glass is crushed to screen with 710 μ m sieve and the selected particle are again sieved with 600 μ m sieve. The glass particles should be then with test sieve opening of 425 μ m to collect particles at 425 ~ 600 μ m in size. Specimen weighing as much as specific weight are placed in the platinum basket. Pure water (pH6.5 ~ 7.5) of 80 ml is poured into the clean and dried flask (made of fused silica) coupled with condenser. Basket containing specimen is gently placed in the flask. After heating for one hour in the apparatus, the basket is removed. The basket is put in a weighing bottle and dried in an oven at 120 ~ 130℃ for one hour, the weighing bottle is cooled in a desiccator with silica-gel and weighed carefully together with a lid.

耐水性 Water resistance	
級 Class	減量率 (wt%) Weight loss (%)
1	<0.05
2	0.05 ≤ ~ <0.10
3	0.10 ≤ ~ <0.25
4	0.25 ≤ ~ <0.60
5	0.60 ≤ ~ <1.10
6	1.10 ≤

5. 2 耐酸性(粉末法) (RA) Acid Resistance

耐酸性は純水の代わりに硝酸水溶液(0. 01N) 80mlを用いて、耐水性試験と同じ装置および方法で処理し、試料の減量率(wt%)を算出して次の表の分類で、その等級が表示されています。

Measurement for acid resistance should be carried out with the procedures in 5.1, using 10 m mol/l {0.01 N} nitric acid instead of pure water already described in 5.1.

耐酸性 Acid resistance	
級 Class	減量率 (wt%) Weight loss (%)
1	<0.20
2	$0.20 \leq \sim < 0.35$
3	$0.35 \leq \sim < 0.65$
4	$0.65 \leq \sim < 1.20$
5	$1.20 \leq \sim < 2.20$
6	$2.20 \leq$

5. 3 耐久性(表面法) (DW) Chemical Durability

耐久性の測定は表面法によって行い、その評価方法は日本光学硝子工業会規格に則ります。30x30x3mm の試料の両面を酸化セリウムで砂目が見えない程度に仕上げ、ある一定の温度サイクルを与えた蒸留水の恒温槽に 48 時間保持した後、試料のヘーズ(%)を測定し、保持前のヘーズ(%)との差によって以下の等級に分類されます。

Chemical Durability is measured and evaluated according to the standard of Japan Optical Glass Industries Associations. The glass sample in 30x30x3mm polished by cerium oxide is kept 48 hours in the homoiothermal distilled water tank of which temperature is controlled by certain condition. Haze(%) of the glass sample is measured by haze meter and according to the difference of the haze(%) before and after the water kept test, Chemical Durability is classified as below.

耐久性		Chemical durability	
級	ヘーズ (%)	Class	Haze (%)
1	2%未満	1	<2%
2	2%以上、10%未満	2	$2\% \leq \sim < 10\%$
3	10%以上、20%未満	3	$10\% \leq \sim < 20\%$
4	20%以上、30%未満	4	$20\% \leq \sim < 30\%$
5	30%以上	5	$30\% \leq$

6 その他の特性 Other Properties

6. 1 泡(B) Bubbles

当社製品は、泡を厳密に検査していますが、硝種によっては製造上、泡を除去することが困難なものもあります。このような硝種に関して、BおよびBBの記号がデータシートに表示されています。この場合、BBはBよりも泡を少なくすることが困難なことを表わしています。しかし、これらの記号が表示されている場合でも実用には支障ありません。

Our products are strictly inspected on the bubbles, however in certain glass materials, it is difficult to eliminate them. Such glasses are indicated with remarks “B”. But there is no problem in practical use. The symbols “BB” indicate more difficulty in removing them than “B”.

6. 2 着色度(C) Coloration

着色度は厚さ 10 ± 0.1 mmの光学ガラスの反射損失を含む分光透過率を200～700nmまで測定し、分光透過率が80%を示す波長と5%を示す波長をそれぞれ整数第1位で四捨五入し、10nmを単位として表示されています。ただし、 n_e が1.85以上の光学ガラスにおいては、分光透過率80%の代わりに70%を示す波長で区別して表す場合もあります。

例えば図のような場合、分光透過率80%の波長が400nm、5%の波長が360nmです。この場合40／36と表示されています。

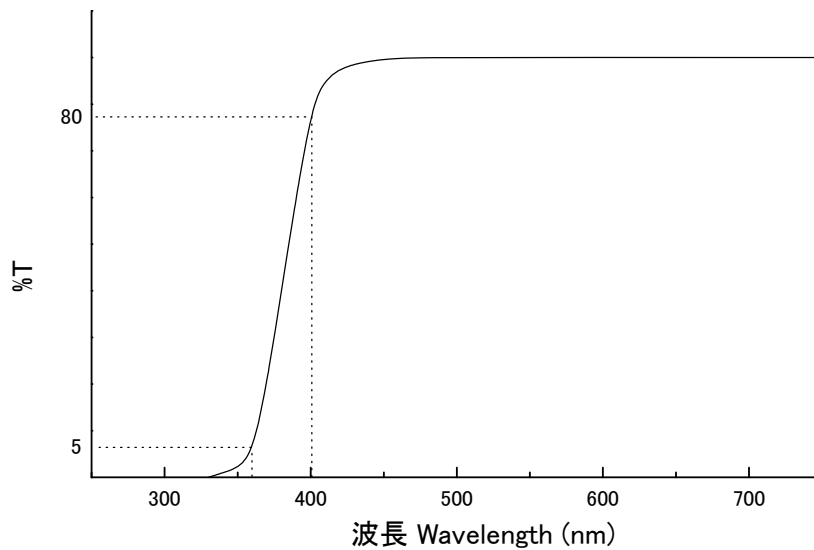
n_e が1.85以上の光学ガラスで分光透過率70%の波長が400nm、5%の波長が360nmの場合には(40)／36と表示されています。

The coloration is expressed with the unit of 10nm by rounding off to 1 decimal of the wavelengths corresponding to 80% and 5% spectral transmittance, by measuring the spectral transmittance in the range of 200 ~ 700nm, including reflection loss of a specimen of 10 ± 0.1 mm thick. In case of materials with n_e 1.85 and beyond, spectral transmittance 70% instead of 80% is shown in some cases.

Example :

In the case of diagram, the wavelength of 400nm corresponds to spectral transmittance 80% and 360nm corresponds to 5%, and in this case the indication is “40/36”.

In case of materials with n_e 1.85 and beyond, the wavelength of 400nm corresponds to spectral transmittance 70% and 360nm corresponds to 5%, and in this case, the indication is expressed as “(40)/36”.



6. 3 比重 (S. g) Specific Gravity

JIS Z 8807 固体比重測定方法の「液中で秤量する測定方法」により、4℃の純水に対する値で表示されています。

The procedures specified in JIS Z 8807 is applied for measuring method. (JIS Z 8807: Measuring Method for Specific Gravity of Solid)

6. 4 生産頻度 (PF) Production Frequency

硝材により生産量などが異なりますが、以下のように大別して表示されています。

Although the quantity of production etc. is subject to change due to glass materials, it is classified roughly as follows.

A 生産頻度が非常に高い Very high frequency of production.

B 生産頻度が高い High frequency of production.

C 生産頻度が低い Low frequency of production.

※ 未記入の硝材に関しましては、別途お問い合わせ下さい。

※ Please contact us for more details.

7 改良材料 Improved Material

7. 1 化学的耐久性を改良した光学ガラス Improved Chemical Endurance Glass
化学的耐久性をより良く改良した光学ガラスも、御提供しております。これらの光学ガラスは、硝種名の末尾にRHの記号が表示されています。

Improved Chemical Endurance materials are indicated with the letter “RH” at the end of glass code.

8 備考 Remarks

8. 1 特記事項 Special Remarks

特記事項がある場合、備考欄に表示があります。

Special remarks are indicated in a remarks column.

“Solarization”

使用条件によりソラリゼーションを起こす可能性がある硝材です。事前に御相談ください。

This glass material can cause solarization depending on conditions of use. Please contact us in advance.

“See details in appendix”

同シート内の「＊」が記載されている箇所に関する別資料がございます。事前にお問い合わせください。

Separate documents are available for a part where “*” is marked. Please contact us in advance.

9 製品の形状区分 Forms of supply

9.1 リヒートプレス品 Re-heat Pressings

光学ガラス材料を、切断、再加熱してプレス成形した品です。御要望の際は、研磨加工の取り代を含んだ必要な寸法を図面に御明記下さい。

Molding reheated glass is pressed into blanks.

Drawings are required, specifying necessary dimensions including grinding stock.

外径区分(mm) Forms of supply	リヒートプレス品公差 Tolerance of re-heat pressing	
	厚さ(mm) Thickness	径(mm) Diameter
≤ 18	± 0.50	± 0.10
$18 < \sim \leq 30$	± 0.40	± 0.15
$30 < \sim \leq 50$	± 0.40	± 0.20
$50 < \sim \leq 100$	± 0.30	± 0.30
$100 < \sim \leq 150$	± 0.30	± 0.40
$150 <$	± 0.50	± 0.50

9.2 丸棒切断品 Glass Rod

棒状の光学ガラス材料から、外径を精度よく仕上げるために、さらに丸め加工した後、切断した製品です。なお、通常の加工公差は次の表の通りですが、御相談に応じます。

Blanks are cut from a precisely ground glass rod is fabricated with a centerless grinding machine. The following table shows our standard tolerance.

外径(mm) Diameter	公差 Tolerance	
	厚さ(mm) Thickness	径(mm) Diameter
3 ~ 20	± 0.20	± 0.05

9. 3 精密プレス成形品 Precision Molding Products

従来の光学ガラスより転移点の低い光学ガラス(精密プレス用光学ガラス)を用いた低温精密成形品です。特殊な精密成形を行うことにより、非球面形状だけでなく様々な形状でのご提供が可能です。成形後のガラス表面は既に研磨面相当に仕上がっています。

Precision Molding Products are available by using low Tg optical glasses and precision molding technologies. Not only aspheric lenses but also any free formed products are available to supply. The glass surfaces after the precision molding have polished quality.

9. 4 指定型 Custom-made

光学ガラス材料を、丸め、切断、および型落としなどして、指定の寸法に仕上げた特殊形状の製品も、指定型として御提供いたします。

Special shape/size is available on request.

* データシートの値は代表値になります。

* Values in the datasheet are typical values.

* データシートの内容は、改良のため予告なく変更することがあります。

* The contents of this data sheet are subject to change without notice for improvement.

434950 K-CaFK95	nd	1.43425	ν d	95.0	nF-nC	0.00457
	ne	1.43535	ν e	94.4	nF'-nC'	0.00461

屈折率 Refractive Indices		
n1548	1548.1	1.42562
n1309	1308.5	1.42706
nt	1014.0	1.42898
nA'	768.2	1.43121
nr	706.5	1.43203
nC	656.3	1.43285
nC'	643.9	1.43308
nD	589.3	1.43422
nd	587.6	1.43425
ne	546.1	1.43535
nF	486.1	1.43742
nF'	480.0	1.43769
ng	435.8	1.43986
nh	404.7	1.44187
ni	365.0	1.44523

分散式の常数 Constants of Dispersion Formula	
A0	2.0408226
A1	$-4.5471403 \times 10^{-3}$
A2	5.8631038×10^{-3}
A3	1.2966471×10^{-4}
A4	$-1.1902639 \times 10^{-5}$
A5	6.9279944×10^{-7}

dn/dTの分散常数 Constants of Dispersion dn/dT abs.	
D0	-2.06×10^{-5}
D1	-5.62×10^{-9}
D2	-2.69×10^{-11}
E0	3.17×10^{-7}
E1	3.49×10^{-10}
$\lambda_{TK} (\mu m)$	0.174

部分分散および部分分散比 Partial Dispersions and Relative Partial Dispersions			
nC-nt	nC-nA'	nd-nC	ne-nC
0.00387	0.00164	0.00140	0.00250
θ C,t	θ C,A'	θ d,C	θ e,C
0.847	0.359	0.306	0.547
ng-nd	ng-nF	nh-ng	ni-ng
0.00561	0.00244	0.00201	0.00537
θ g,d	θ g,F(Δ)	θ h,g	θ i,g
1.228	0.534 (0.0496)	0.440	1.175
nC'-nt	ne-nC'	nF'-ne	ni-nF'
0.00410	0.00227	0.00234	0.00754
θ 'C',t	θ 'e,C'	θ 'F',e	θ 'i,F'
0.889	0.492	0.508	1.636

機械的性質 Mechanical Properties	熱的性質 Thermal Properties
ヌープ硬さ Hk Knoop Hardness 331 (3)	転移点 Tg (°C) Transformation Point 431
ビッカース硬さ Hv Vickers Hardness 348	屈伏点 At (°C) Yielding Point 450
摩耗度 Ha Abrasion 500	線膨張係数 α ($\times 10^{-7} \text{°C}^{-1}$) Thermal Expansion
ヤング率 E ($\times 10^8 \text{N} \cdot \text{m}^{-2}$) Young's Modulus 718	(-30~+70°C) 129 (+100~+300°C) 167
剛性率 G ($\times 10^8 \text{N} \cdot \text{m}^{-2}$) Modulus of Rigidity 279	熱伝導率 λ ($\text{W} \cdot \text{m}^{-1} \cdot \text{K}^{-1}$) Thermal Conductivity 0.796
ポアソン比 σ Poisson Ratio 0.287	比熱 Cp ($\text{J} \cdot \text{kg}^{-1} \cdot \text{K}^{-1}$) Specific Heat 730
化学的性質 Chemical Properties	その他 Other Properties
耐水性(粉末法) RW Water Resistance 2	泡 B Bubbles BB
耐酸性(粉末法) RA Acid Resistance 4	着色度 C Coloration 33/28
耐久性(表面法) DW Chemical Durability 1	比重 S.g Specific Gravity 3.54
備考 Remarks	生産頻度 PF Production frequency C

内部透過率 τ Internal Transmittance		
λ (nm)	3mm	10mm
270	0.088	
280	0.177	
290	0.321	0.023
300	0.506	0.104
310	0.689	0.290
320	0.826	0.531
330	0.913	0.739
340	0.958	0.868
350	0.980	0.936
360	0.991	0.972
370	0.996	0.987
380	0.998	0.994
390	0.998	0.995
400	0.998	0.995
420	0.998	0.995
440	0.998	0.996
460	0.998	0.996
480	0.999	0.997
500	0.999	0.998
550	0.999	0.999
600	0.999	0.998
650	0.999	0.998
700	0.999	0.998
800	0.999	0.998
1060	0.999	0.999
1500	0.999	0.999
2000	0.999	0.999

屈折率の温度係数 Temperature Coefficients of Refractive Index						
	(dn/dT)rel. ($\times 10^{-6} \text{°C}^{-1}$)			(dn/dT)abs. ($\times 10^{-6} \text{°C}^{-1}$)		
(°C)	1548.1	d	g	1548.1	d	g
-40/-20	-5.4	-5.2	-4.9	-7.3	-7.1	-6.9
0/+20	-6.0	-5.8	-5.5	-7.4	-7.2	-6.9
+40/+60	-6.5	-6.2	-5.9	-7.6	-7.3	-7.0

497815 K-PFK80	nd	1.49700	ν d	81.5	nF-nC	0.00610
	ne	1.49845	ν e	80.9	nF'-nC'	0.00616

屈折率 Refractive Indices		
n1548	1548.1	1.48591
n1309	1308.5	1.48768
nt	1014.0	1.49007
nA'	768.2	1.49299
nr	706.5	1.49406
nC	656.3	1.49514
nC'	643.9	1.49543
nD	589.3	1.49694
nd	587.6	1.49700
ne	546.1	1.49845
nF	486.1	1.50124
nF'	480.0	1.50159
ng	435.8	1.50452
nh	404.7	1.50722
ni	365.0	1.51178

分散式の常数 Constants of Dispersion Formula	
A0	2.2178347
A1	$-5.5966846 \times 10^{-3}$
A2	8.3703747×10^{-3}
A3	1.0974850×10^{-4}
A4	$-3.3983937 \times 10^{-6}$
A5	2.5836351×10^{-7}

dn/dTの分散常数 Constants of Dispersion dn/dT abs.	
D0	-1.91×10^{-5}
D1	-2.54×10^{-9}
D2	-5.06×10^{-11}
E0	3.29×10^{-7}
E1	5.19×10^{-11}
$\lambda_{TK} (\mu m)$	0.188

部分分散および部分分散比 Partial Dispersions and Relative Partial Dispersions			
nC-nt	nC-nA'	nd-nC	ne-nC
0.00507	0.00215	0.00186	0.00331
$\theta_{C,t}$	$\theta_{C,A'}$	$\theta_{d,C}$	$\theta_{e,C}$
0.831	0.352	0.305	0.543
ng-nd	ng-nF	nh-ng	ni-ng
0.00752	0.00328	0.00270	0.00726
$\theta_{g,d}$	$\theta_{g,F(\Delta)}$	$\theta_{h,g}$	$\theta_{i,g}$
1.233	0.538 (0.0309)	0.443	1.190
nC'-nt	ne-nC'	nF'-ne	ni-nF'
0.00536	0.00302	0.00314	0.01019
$\theta_{C',t}$	$\theta_{e,C'}$	$\theta_{F',e}$	$\theta_{i,F'}$
0.870	0.490	0.510	1.654

機械的性質 Mechanical Properties	熱的性質 Thermal Properties
ヌープ硬さ Hk Knoop Hardness 354 (4)	転移点 Tg (°C) Transformation Point 461
ビッカース硬さ Hv Vickers Hardness 312	屈伏点 At (°C) Yielding Point 483
摩耗度 Ha Abrasion 450	線膨張係数 $\alpha (\times 10^{-7} \text{°C}^{-1})$ Thermal Expansion
ヤング率 E ($\times 10^8 \text{N} \cdot \text{m}^{-2}$) Young's Modulus 796	(-30~+70°C) 134 (+100~+300°C) 154
剛性率 G ($\times 10^8 \text{N} \cdot \text{m}^{-2}$) Modulus of Rigidity 309	熱伝導率 $\lambda (\text{W} \cdot \text{m}^{-1} \cdot \text{K}^{-1})$ Thermal Conductivity 0.740
ポアソン比 σ Poisson Ratio 0.287	比熱 Cp ($\text{J} \cdot \text{kg}^{-1} \cdot \text{K}^{-1}$) Specific Heat 676
化学的性質 Chemical Properties	その他 Other Properties
耐水性(粉末法) RW Water Resistance 1	泡 B Bubbles B
耐酸性(粉末法) RA Acid Resistance 3	着色度 C Coloration 34/27
耐久性(表面法) DW Chemical Durability 1	比重 S.g Specific Gravity 3.60
備考 Remarks	生産頻度 PF Production frequency B

内部透過率 τ Internal Transmittance		
$\lambda(\text{nm})$	3mm	10mm
270	0.343	0.028
280	0.456	0.073
290	0.585	0.167
300	0.714	0.326
310	0.825	0.527
320	0.903	0.711
330	0.950	0.844
340	0.976	0.923
350	0.989	0.965
360	0.995	0.984
370	0.998	0.994
380	0.999	0.997
390	0.999	0.998
400	0.999	0.998
420	0.999	0.997
440	0.999	0.997
460	0.999	0.998
480	0.999	0.999
500	0.999	0.999
550	0.999	0.999
600	0.999	0.999
650	0.999	0.998
700	0.999	0.999
800	0.999	0.999
1060	0.999	0.999
1500	0.999	0.999
2000	0.999	0.998

屈折率の温度係数 Temperature Coefficients of Refractive Index						
	(dn/dT)rel. ($\times 10^{-6} \text{°C}^{-1}$)			(dn/dT)abs. ($\times 10^{-6} \text{°C}^{-1}$)		
(°C)	1548.1	d	g	1548.1	d	g
-40/-20	-5.8	-5.5	-5.1	-7.8	-7.5	-7.2
0/+20	-6.2	-6.0	-5.6	-7.7	-7.5	-7.1
+40/+60	-6.7	-6.4	-6.1	-7.8	-7.6	-7.2

486852 K-PFK85	nd	1.48563	ν d	85.2	nF-nC	0.00570
	ne	1.48699	ν e	84.7	nF'-nC'	0.00575

屈折率 Refractive Indices		
n1548	1548.1	1.47546
n1309	1308.5	1.47705
nt	1014.0	1.47924
nA'	768.2	1.48191
nr	706.5	1.48290
nC	656.3	1.48389
nC'	643.9	1.48417
nD	589.3	1.48558
nd	587.6	1.48563
ne	546.1	1.48699
nF	486.1	1.48959
nF'	480.0	1.48992
ng	435.8	1.49266
nh	404.7	1.49519
ni	365.0	1.49945

分散式の常数 Constants of Dispersion Formula	
A0	2.1858326
A1	$-5.0155632 \times 10^{-3}$
A2	7.5107775×10^{-3}
A3	1.7770562×10^{-4}
A4	$-1.2164148 \times 10^{-5}$
A5	6.1341005×10^{-7}

dn/dTの分散常数 Constants of Dispersion dn/dT abs.	
D0	-2.28×10^{-5}
D1	-1.71×10^{-9}
D2	6.72×10^{-11}
E0	3.39×10^{-7}
E1	4.74×10^{-10}
$\lambda_{TK} (\mu m)$	0.176

部分分散および部分分散比 Partial Dispersions and Relative Partial Dispersions			
nC-nt	nC-nA'	nd-nC	ne-nC
0.00465	0.00198	0.00174	0.00310
$\theta_{C,t}$	$\theta_{C,A'}$	$\theta_{d,C}$	$\theta_{e,C}$
0.816	0.347	0.305	0.544
ng-nd	ng-nF	nh-ng	ni-ng
0.00703	0.00307	0.00253	0.00679
$\theta_{g,d}$	$\theta_{g,F(\Delta)}$	$\theta_{h,g}$	$\theta_{i,g}$
1.233	0.539 (0.0381)	0.444	1.191
nC'-nt	ne-nC'	nF'-ne	ni-nF'
0.00493	0.00282	0.00293	0.00953
$\theta'_{C',t}$	$\theta'_{e,C'}$	$\theta'_{F',e}$	$\theta'_{i,F'}$
0.857	0.490	0.510	1.657

機械的性質 Mechanical Properties	熱的性質 Thermal Properties
ヌープ硬さ Hk Knoop Hardness 338 (3)	転移点 Tg (°C) Transformation Point 452
ビッカース硬さ Hv Vickers Hardness 327	屈伏点 At (°C) Yielding Point 484
摩耗度 Ha Abrasion 470	線膨張係数 $\alpha (\times 10^{-7} \text{°C}^{-1})$ Thermal Expansion
ヤング率 E ($\times 10^8 \text{N} \cdot \text{m}^{-2}$) Young's Modulus 691	(-30~+70°C) 129 (+100~+300°C) 163
剛性率 G ($\times 10^8 \text{N} \cdot \text{m}^{-2}$) Modulus of Rigidity 264	熱伝導率 $\lambda (\text{W} \cdot \text{m}^{-1} \cdot \text{K}^{-1})$ Thermal Conductivity 0.700
ポアソン比 σ Poisson Ratio 0.306	比熱 Cp ($\text{J} \cdot \text{kg}^{-1} \cdot \text{K}^{-1}$) Specific Heat 623
化学的性質 Chemical Properties	その他 Other Properties
耐水性(粉末法) RW Water Resistance 1	泡 B Bubbles BB
耐酸性(粉末法) RA Acid Resistance 1	着色度 C Coloration 34/29
耐久性(表面法) DW Chemical Durability 1	比重 S.g Specific Gravity 3.97
備考 Remarks	生産頻度 PF Production frequency C

内部透過率 τ Internal Transmittance		
$\lambda(\text{nm})$	3mm	10mm
270	0.167	
280	0.270	0.012
290	0.400	0.047
300	0.551	0.137
310	0.683	0.280
320	0.828	0.535
330	0.909	0.728
340	0.956	0.861
350	0.979	0.934
360	0.990	0.967
370	0.995	0.983
380	0.997	0.991
390	0.998	0.994
400	0.998	0.995
420	0.998	0.995
440	0.998	0.995
460	0.999	0.996
480	0.999	0.997
500	0.999	0.998
550	0.999	0.999
600	0.999	0.999
650	0.999	0.998
700	0.999	0.999
800	0.999	0.999
1060	0.999	0.999
1500	0.999	0.999
2000	0.999	0.999

屈折率の温度係数 Temperature Coefficients of Refractive Index						
	(dn/dT)rel. ($\times 10^{-6} \text{°C}^{-1}$)			(dn/dT)abs. ($\times 10^{-6} \text{°C}^{-1}$)		
(°C)	1548.1	d	g	1548.1	d	g
-40/-20	-6.8	-6.6	-6.3	-8.8	-8.6	-8.3
0/+20	-7.6	-7.3	-7.0	-9.0	-8.8	-8.5
+40/+60	-7.9	-7.6	-7.2	-9.0	-8.8	-8.4

459900 K-PFK90	nd	1.45880	ν d	90.0	nF-nC	0.00510
	ne	1.46002	ν e	89.5	nF'-nC'	0.00514

屈折率 Refractive Indices		
n1548	1548.1	1.44941
n1309	1308.5	1.45094
nt	1014.0	1.45299
nA'	768.2	1.45545
nr	706.5	1.45635
nC	656.3	1.45724
nC'	643.9	1.45749
nD	589.3	1.45876
nd	587.6	1.45880
ne	546.1	1.46002
nF	486.1	1.46234
nF'	480.0	1.46263
ng	435.8	1.46508
nh	404.7	1.46733
ni	365.0	1.47111

分散式の常数 Constants of Dispersion Formula	
A0	2.1094643
A1	$-4.8026812 \times 10^{-3}$
A2	6.7645351×10^{-3}
A3	8.3329962×10^{-5}
A4	3.4196126×10^{-7}
A5	$-8.4933854 \times 10^{-8}$

dn/dTの分散常数 Constants of Dispersion dn/dT abs.	
D0	-2.23×10^{-5}
D1	-2.13×10^{-9}
D2	9.79×10^{-11}
E0	2.57×10^{-7}
E1	-1.68×10^{-10}
$\lambda_{TK} (\mu m)$	0.221

部分分散および部分分散比 Partial Dispersions and Relative Partial Dispersions			
nC-nt	nC-nA'	nd-nC	ne-nC
0.00425	0.00179	0.00156	0.00278
θ C,t	θ C,A'	θ d,C	θ e,C
0.833	0.351	0.306	0.545
ng-nd	ng-nF	nh-ng	ni-ng
0.00628	0.00274	0.00225	0.00603
θ g,d	θ g,F(Δ)	θ h,g	θ i,g
1.231	0.537 (0.0444)	0.441	1.182
nC'-nt	ne-nC'	nF'-ne	ni-nF'
0.00450	0.00253	0.00261	0.00848
θ 'C',t	θ 'e,C'	θ 'F',e	θ 'i,F'
0.875	0.492	0.508	1.650

機械的性質 Mechanical Properties	熱的性質 Thermal Properties
ヌープ硬さ Hk Knoop Hardness 350 (4)	転移点 Tg (°C) Transformation Point 431
ビッカース硬さ Hv Vickers Hardness 353	屈伏点 At (°C) Yielding Point 461
摩耗度 Ha Abrasion 513	線膨張係数 α ($\times 10^{-7} \text{°C}^{-1}$) Thermal Expansion
ヤング率 E ($\times 10^8 \text{N} \cdot \text{m}^{-2}$) Young's Modulus 678	(-30~+70°C) 137 (+100~+300°C) 165
剛性率 G ($\times 10^8 \text{N} \cdot \text{m}^{-2}$) Modulus of Rigidity 262	熱伝導率 λ ($\text{W} \cdot \text{m}^{-1} \cdot \text{K}^{-1}$) Thermal Conductivity 0.744
ポアソン比 σ Poisson Ratio 0.294	比熱 Cp ($\text{J} \cdot \text{kg}^{-1} \cdot \text{K}^{-1}$) Specific Heat 680
化学的性質 Chemical Properties	その他 Other Properties
耐水性(粉末法) RW Water Resistance 1	泡 B Bubbles BB
耐酸性(粉末法) RA Acid Resistance 2	着色度 C Coloration 34/29
耐久性(表面法) DW Chemical Durability 1	比重 S.g Specific Gravity 3.72
備考 Remarks	生産頻度 PF Production frequency C

内部透過率 τ Internal Transmittance		
λ (nm)	3mm	10mm
270	0.194	
280	0.276	0.014
290	0.427	0.059
300	0.598	0.180
310	0.736	0.361
320	0.864	0.616
330	0.930	0.787
340	0.968	0.900
350	0.985	0.954
360	0.994	0.980
370	0.997	0.991
380	0.998	0.996
390	0.999	0.998
400	0.999	0.999
420	0.999	0.999
440	0.999	0.999
460	0.999	0.999
480	0.999	0.999
500	0.999	0.999
550	0.999	0.999
600	0.999	0.999
650	0.999	0.999
700	0.999	0.999
800	0.999	0.999
1060	0.999	0.999
1500	0.999	0.999
2000	0.999	0.999

屈折率の温度係数 Temperature Coefficients of Refractive Index						
	(dn/dT)rel. ($\times 10^{-6} \text{°C}^{-1}$)			(dn/dT)abs. ($\times 10^{-6} \text{°C}^{-1}$)		
(°C)	1548.1	d	g	1548.1	d	g
-40/-20	-6.1	-5.9	-5.6	-8.1	-7.9	-7.6
0/+20	-7.0	-6.8	-6.5	-8.4	-8.3	-8.0
+40/+60	-7.3	-7.1	-6.8	-8.4	-8.2	-8.0

592683 K-GFK68	nd	1.59240	ν d	68.3	nF-nC	0.00867
	ne	1.59446	ν e	68.0	nF'-nC'	0.00874

屈折率 Refractive Indices		
n1548	1548.1	1.57817
n1309	1308.5	1.58014
nt	1014.0	1.58301
nA'	768.2	1.58684
nr	706.5	1.58830
nC	656.3	1.58978
nC'	643.9	1.59020
nD	589.3	1.59232
nd	587.6	1.59240
ne	546.1	1.59446
nF	486.1	1.59845
nF'	480.0	1.59894
ng	435.8	1.60318
nh	404.7	1.60710
ni	365.0	1.61375

分散式の常数 Constants of Dispersion Formula	
A0	2.4994867
A1	$-5.9285872 \times 10^{-3}$
A2	1.2743526×10^{-2}
A3	1.5469636×10^{-4}
A4	3.9947612×10^{-6}
A5	$-1.7603560 \times 10^{-7}$

dn/dTの分散常数 Constants of Dispersion dn/dT abs.	
D0	-2.36×10^{-5}
D1	2.85×10^{-9}
D2	4.82×10^{-11}
E0	4.01×10^{-7}
E1	2.74×10^{-10}
$\lambda_{TK} (\mu m)$	0.183

部分分散および部分分散比 Partial Dispersions and Relative Partial Dispersions			
nC-nt	nC-nA'	nd-nC	ne-nC
0.00677	0.00294	0.00262	0.00468
θ C,t	θ C,A'	θ d,C	θ e,C
0.781	0.339	0.302	0.540
ng-nd	ng-nF	nh-ng	ni-ng
0.01078	0.00473	0.00392	0.01057
θ g,d	θ g,F(Δ)	θ h,g	θ i,g
1.243	0.546 (0.0167)	0.452	1.219
nC'-nt	ne-nC'	nF'-ne	ni-nF'
0.00719	0.00426	0.00448	0.01481
θ 'C',t	θ 'e,C'	θ 'F',e	θ 'i,F'
0.823	0.487	0.513	1.695

機械的性質 Mechanical Properties	熱的性質 Thermal Properties
ヌープ硬さ Hk Knoop Hardness 368 (4)	転移点 Tg (°C) Transformation Point 512
ビッカース硬さ Hv Vickers Hardness 390	屈伏点 At (°C) Yielding Point 536
摩耗度 Ha Abrasion 540	線膨張係数 $\alpha (\times 10^{-7} \text{°C}^{-1})$ Thermal Expansion
ヤング率 E ($\times 10^8 \text{N} \cdot \text{m}^{-2}$) Young's Modulus 683	(-30~+70°C) 129 (+100~+300°C) 152
剛性率 G ($\times 10^8 \text{N} \cdot \text{m}^{-2}$) Modulus of Rigidity 261	熱伝導率 $\lambda (\text{W} \cdot \text{m}^{-1} \cdot \text{K}^{-1})$ Thermal Conductivity 0.567
ポアソン比 σ Poisson Ratio 0.308	比熱 Cp ($\text{J} \cdot \text{kg}^{-1} \cdot \text{K}^{-1}$) Specific Heat 487
化学的性質 Chemical Properties	その他 Other Properties
耐水性(粉末法) RW Water Resistance 1	泡 B Bubbles B
耐酸性(粉末法) RA Acid Resistance 1	着色度 C Coloration 34/28
耐久性(表面法) DW Chemical Durability 1	比重 S.g Specific Gravity 4.51
備考 Remarks	生産頻度 PF Production frequency A

内部透過率 τ Internal Transmittance		
λ (nm)	3mm	10mm
270	0.756	0.395
280	0.804	0.483
290	0.860	0.605
300	0.890	0.680
310	0.893	0.687
320	0.957	0.866
330	0.973	0.915
340	0.986	0.955
350	0.992	0.974
360	0.995	0.986
370	0.997	0.991
380	0.998	0.995
390	0.998	0.995
400	0.998	0.996
420	0.999	0.997
440	0.999	0.998
460	0.999	0.998
480	0.999	0.999
500	0.999	0.999
550	0.999	0.999
600	0.999	0.999
650	0.999	0.999
700	0.999	0.999
800	0.999	0.999
1060	0.999	0.999
1500	0.999	0.999
2000	0.999	0.998

屈折率の温度係数 Temperature Coefficients of Refractive Index						
	(dn/dT)rel. ($\times 10^{-6} \text{°C}^{-1}$)			(dn/dT)abs. ($\times 10^{-6} \text{°C}^{-1}$)		
(°C)	1548.1	d	g	1548.1	d	g
-40/-20	-8.9	-8.6	-8.1	-11.0	-10.8	-10.4
0/+20	-9.5	-9.2	-8.7	-11.1	-10.8	-10.3
+40/+60	-9.7	-9.4	-8.9	-10.9	-10.6	-10.1

569713 K-GFK70	nd	1.56907	ν d	71.3	nF-nC	0.00798
	ne	1.57098	ν e	70.9	nF'-nC'	0.00805

屈折率 Refractive Indices		
n1548	1548.1	1.55577
n1309	1308.5	1.55766
nt	1014.0	1.56038
nA'	768.2	1.56395
nr	706.5	1.56530
nC	656.3	1.56666
nC'	643.9	1.56705
nD	589.3	1.56900
nd	587.6	1.56907
ne	546.1	1.57098
nF	486.1	1.57464
nF'	480.0	1.57510
ng	435.8	1.57899
nh	404.7	1.58258
ni	365.0	1.58864

分散式の常数 Constants of Dispersion Formula	
A0	2.4293935
A1	$-5.7591097 \times 10^{-3}$
A2	1.1512013×10^{-2}
A3	1.3249240×10^{-4}
A4	7.3250033×10^{-6}
A5	$-5.7195445 \times 10^{-7}$

dn/dTの分散常数 Constants of Dispersion dn/dT abs.	
D0	-2.47×10^{-5}
D1	-1.68×10^{-9}
D2	-2.49×10^{-11}
E0	3.77×10^{-7}
E1	3.45×10^{-10}
$\lambda_{TK} (\mu m)$	0.178

部分分散および部分分散比 Partial Dispersions and Relative Partial Dispersions			
nC-nt	nC-nA'	nd-nC	ne-nC
0.00628	0.00271	0.00241	0.00432
θ C,t	θ C,A'	θ d,C	θ e,C
0.787	0.340	0.302	0.541
ng-nd	ng-nF	nh-ng	ni-ng
0.00992	0.00435	0.00359	0.00965
θ g,d	θ g,F(Δ)	θ h,g	θ i,g
1.243	0.545 (0.0207)	0.450	1.209
nC'-nt	ne-nC'	nF'-ne	ni-nF'
0.00667	0.00393	0.00412	0.01354
θ 'C',t	θ 'e,C'	θ 'F',e	θ 'i,F'
0.829	0.488	0.512	1.682

機械的性質 Mechanical Properties	熱的性質 Thermal Properties
ヌープ硬さ Hk Knoop Hardness 332 (3)	転移点 Tg (°C) Transformation Point 485
ビッカース硬さ Hv Vickers Hardness 352	屈伏点 At (°C) Yielding Point 509
摩耗度 Ha Abrasion 620	線膨張係数 α ($\times 10^{-7} \text{°C}^{-1}$) Thermal Expansion
ヤング率 E ($\times 10^8 \text{N} \cdot \text{m}^{-2}$) Young's Modulus 663	(-30~+70°C) 132 (+100~+300°C) 156
剛性率 G ($\times 10^8 \text{N} \cdot \text{m}^{-2}$) Modulus of Rigidity 256	熱伝導率 λ ($\text{W} \cdot \text{m}^{-1} \cdot \text{K}^{-1}$) Thermal Conductivity 0.553
ポアソン比 σ Poisson Ratio 0.295	比熱 Cp ($\text{J} \cdot \text{kg}^{-1} \cdot \text{K}^{-1}$) Specific Heat 498
化学的性質 Chemical Properties	その他 Other Properties
耐水性(粉末法) RW Water Resistance 1	泡 B Bubbles B
耐酸性(粉末法) RA Acid Resistance 1	着色度 C Coloration 34/28
耐久性(表面法) DW Chemical Durability 1	比重 S.g Specific Gravity 4.48
備考 Remarks	生産頻度 PF Production frequency A

内部透過率 τ Internal Transmittance		
λ (nm)	3mm	10mm
270	0.799	0.474
280	0.848	0.578
290	0.912	0.737
300	0.931	0.790
310	0.902	0.709
320	0.977	0.926
330	0.987	0.958
340	0.993	0.977
350	0.996	0.987
360	0.997	0.992
370	0.998	0.994
380	0.998	0.995
390	0.998	0.995
400	0.998	0.995
420	0.999	0.997
440	0.999	0.997
460	0.999	0.998
480	0.999	0.999
500	0.999	0.999
550	0.999	0.999
600	0.999	0.999
650	0.999	0.999
700	0.999	0.999
800	0.999	0.998
1060	0.999	0.999
1500	0.999	0.999
2000	0.999	0.999

屈折率の温度係数 Temperature Coefficients of Refractive Index						
	(dn/dT)rel. ($\times 10^{-6} \text{°C}^{-1}$)			(dn/dT)abs. ($\times 10^{-6} \text{°C}^{-1}$)		
(°C)	1548.1	d	g	1548.1	d	g
-40/-20	-9.1	-8.9	-8.5	-11.2	-11.0	-10.7
0/+20	-9.7	-9.4	-9.0	-11.2	-10.9	-10.6
+40/+60	-10.1	-9.8	-9.3	-11.3	-11.0	-10.6

518635 K-PBK40	nd	1.51760	ν d	63.5	nF-nC	0.00815
	ne	1.51954	ν e	63.4	nF'-nC'	0.00820

屈折率 Refractive Indices		
n1548	1548.1	1.50107
n1309	1308.5	1.50410
nt	1014.0	1.50795
nA'	768.2	1.51216
nr	706.5	1.51364
nC	656.3	1.51508
nC'	643.9	1.51550
nD	589.3	1.51753
nd	587.6	1.51760
ne	546.1	1.51954
nF	486.1	1.52323
nF'	480.0	1.52370
ng	435.8	1.52758
nh	404.7	1.53116
ni	365.0	1.53718

分散式の常数 Constants of Dispersion Formula	
A0	2.2744024
A1	$-1.0702890 \times 10^{-2}$
A2	1.0577306×10^{-2}
A3	2.2857431×10^{-4}
A4	$-7.2914225 \times 10^{-6}$
A5	2.4124054×10^{-7}

dn/dTの分散常数 Constants of Dispersion dn/dT abs.	
D0	4.91×10^{-6}
D1	2.06×10^{-8}
D2	1.52×10^{-11}
E0	4.18×10^{-7}
E1	1.61×10^{-10}
$\lambda_{TK} (\mu m)$	0.165

部分分散および部分分散比 Partial Dispersions and Relative Partial Dispersions			
nC-nt	nC-nA'	nd-nC	ne-nC
0.00713	0.00292	0.00252	0.00446
$\theta_{C,t}$	$\theta_{C,A'}$	$\theta_{d,C}$	$\theta_{e,C}$
0.875	0.358	0.309	0.547
ng-nd	ng-nF	nh-ng	ni-ng
0.00998	0.00435	0.00358	0.00960
$\theta_{g,d}$	$\theta_{g,F(\Delta)}$	$\theta_{h,g}$	$\theta_{i,g}$
1.225	0.534 (-0.0034)	0.439	1.178
nC'-nt	ne-nC'	nF'-ne	ni-nF'
0.00755	0.00404	0.00416	0.01348
$\theta_{C',t}$	$\theta_{e,C'}$	$\theta_{F',e}$	$\theta_{i,F'}$
0.921	0.493	0.507	1.644

機械的性質 Mechanical Properties	熱的性質 Thermal Properties
ヌープ硬さ Hk Knoop Hardness 615 (6)	転移点 Tg (°C) Transformation Point 501
ビッカース硬さ Hv Vickers Hardness 606	屈伏点 At (°C) Yielding Point 549
摩耗度 Ha Abrasion 70	線膨張係数 $\alpha (\times 10^{-7} \text{°C}^{-1})$ Thermal Expansion
ヤング率 E ($\times 10^8 \text{N} \cdot \text{m}^{-2}$) Young's Modulus 799	(-30~+70°C) 54 (+100~+300°C) 73
剛性率 G ($\times 10^8 \text{N} \cdot \text{m}^{-2}$) Modulus of Rigidity 325	熱伝導率 $\lambda (\text{W} \cdot \text{m}^{-1} \cdot \text{K}^{-1})$ Thermal Conductivity 1.070
ポアソン比 σ Poisson Ratio 0.229	比熱 Cp ($\text{J} \cdot \text{kg}^{-1} \cdot \text{K}^{-1}$) Specific Heat 836
化学的性質 Chemical Properties	その他 Other Properties
耐水性(粉末法) RW Water Resistance 1	泡 B Bubbles
耐酸性(粉末法) RA Acid Resistance 1	着色度 C Coloration 33/29
耐久性(表面法) DW Chemical Durability 2	比重 S.g Specific Gravity 2.39
備考 Remarks	生産頻度 PF Production frequency A

内部透過率 τ Internal Transmittance		
$\lambda(\text{nm})$	3mm	10mm
270	0.182	
280	0.338	0.027
290	0.519	0.113
300	0.685	0.284
310	0.811	0.498
320	0.894	0.689
330	0.942	0.822
340	0.970	0.904
350	0.984	0.948
360	0.991	0.971
370	0.994	0.982
380	0.996	0.987
390	0.997	0.991
400	0.997	0.992
420	0.997	0.992
440	0.997	0.992
460	0.998	0.994
480	0.998	0.995
500	0.998	0.995
550	0.998	0.996
600	0.998	0.996
650	0.998	0.996
700	0.998	0.996
800	0.998	0.996
1060	0.998	0.996
1500	0.996	0.988
2000	0.990	0.968

屈折率の温度係数 Temperature Coefficients of Refractive Index						
	(dn/dT)rel. ($\times 10^{-6} \text{°C}^{-1}$)			(dn/dT)abs. ($\times 10^{-6} \text{°C}^{-1}$)		
(°C)	1548.1	d	g	1548.1	d	g
-40/-20	3.3	3.9	4.5	1.3	1.8	2.4
0/+20	3.4	4.0	4.6	2.0	2.5	3.1
+40/+60	3.8	4.4	5.0	2.7	3.2	3.8

523623 K-PBK50	nd	1.52250	ν d	62.3	nF-nC	0.00839
	ne	1.52451	ν e	62.0	nF'-nC'	0.00846

屈折率 Refractive Indices		
n1548	1548.1	1.50578
n1309	1308.5	1.50879
nt	1014.0	1.51263
nA'	768.2	1.51691
nr	706.5	1.51843
nC	656.3	1.51992
nC'	643.9	1.52033
nD	589.3	1.52243
nd	587.6	1.52250
ne	546.1	1.52451
nF	486.1	1.52831
nF'	480.0	1.52879
ng	435.8	1.53281
nh	404.7	1.53652
ni	365.0	1.54282

分散式の常数 Constants of Dispersion Formula	
A0	2.2879519
A1	$-1.0513752 \times 10^{-2}$
A2	1.0963175×10^{-2}
A3	2.7027054×10^{-4}
A4	$-1.7054549 \times 10^{-5}$
A5	1.0857039×10^{-6}

dn/dTの分散常数 Constants of Dispersion dn/dT abs.	
D0	5.10×10^{-8}
D1	2.09×10^{-8}
D2	-1.11×10^{-11}
E0	4.38×10^{-7}
E1	5.79×10^{-10}
$\lambda_{TK} (\mu m)$	0.176

部分分散および部分分散比 Partial Dispersions and Relative Partial Dispersions			
nC-nt	nC-nA'	nd-nC	ne-nC
0.00729	0.00301	0.00258	0.00459
$\theta_{C,t}$	$\theta_{C,A'}$	$\theta_{d,C}$	$\theta_{e,C}$
0.869	0.359	0.308	0.547
ng-nd	ng-nF	nh-ng	ni-ng
0.01031	0.00450	0.00371	0.01001
$\theta_{g,d}$	$\theta_{g,F(\Delta)}$	$\theta_{h,g}$	$\theta_{i,g}$
1.229	0.536 (-0.0034)	0.442	1.193
nC'-nt	ne-nC'	nF'-ne	ni-nF'
0.00770	0.00418	0.00428	0.01403
$\theta_{C',t}$	$\theta_{e,C'}$	$\theta_{F',e}$	$\theta_{i,F'}$
0.910	0.494	0.506	1.658

機械的性質 Mechanical Properties	熱的性質 Thermal Properties
ヌープ硬さ Hk Knoop Hardness 514 (5)	転移点 Tg (°C) Transformation Point 481
ビッカース硬さ Hv Vickers Hardness 493	屈伏点 At (°C) Yielding Point 518
摩耗度 Ha Abrasion 87	線膨張係数 $\alpha (\times 10^{-7} \text{°C}^{-1})$ Thermal Expansion 67
ヤング率 E ($\times 10^8 \text{N} \cdot \text{m}^{-2}$) Young's Modulus 762	(-30~+70°C) 67 (+100~+300°C) 92
剛性率 G ($\times 10^8 \text{N} \cdot \text{m}^{-2}$) Modulus of Rigidity 312	熱伝導率 $\lambda (\text{W} \cdot \text{m}^{-1} \cdot \text{K}^{-1})$ Thermal Conductivity 0.986
ポアソン比 σ Poisson Ratio 0.222	比熱 Cp ($\text{J} \cdot \text{kg}^{-1} \cdot \text{K}^{-1}$) Specific Heat 849
化学的性質 Chemical Properties	その他 Other Properties
耐水性(粉末法) RW Water Resistance 3	泡 B Bubbles
耐酸性(粉末法) RA Acid Resistance 4	着色度 C Coloration 34/29
耐久性(表面法) DW Chemical Durability 2	比重 S.g Specific Gravity 2.43
備考 Remarks	生産頻度 PF Production frequency C

内部透過率 τ Internal Transmittance		
$\lambda(\text{nm})$	3mm	10mm
270		
280	0.320	0.022
290	0.481	0.087
300	0.653	0.242
310	0.788	0.452
320	0.881	0.656
330	0.935	0.803
340	0.966	0.891
350	0.982	0.943
360	0.991	0.972
370	0.995	0.983
380	0.997	0.989
390	0.998	0.992
400	0.998	0.995
420	0.998	0.996
440	0.998	0.996
460	0.998	0.996
480	0.999	0.998
500	0.999	0.998
550	0.999	0.998
600	0.999	0.998
650	0.999	0.998
700	0.999	0.998
800	0.999	0.998
1060	0.999	0.999
1500	0.998	0.996
2000	0.992	0.975

屈折率の温度係数 Temperature Coefficients of Refractive Index						
	(dn/dT)rel. ($\times 10^{-6} \text{°C}^{-1}$)			(dn/dT)abs. ($\times 10^{-6} \text{°C}^{-1}$)		
(°C)	1548.1	d	g	1548.1	d	g
-40/-20	1.2	1.7	2.2	-0.8	-0.4	0.1
0/+20	1.4	2.0	2.6	-0.1	0.4	1.0
+40/+60	1.8	2.4	3.1	0.6	1.2	1.9

527623 K-PBK60	nd	1.52740	ν d	62.3	nF-nC	0.00847
	ne	1.52942	ν e	62.1	nF'-nC'	0.00852

屈折率 Refractive Indices		
n1548	1548.1	1.51005
n1309	1308.5	1.51326
nt	1014.0	1.51731
nA'	768.2	1.52173
nr	706.5	1.52328
nC	656.3	1.52479
nC'	643.9	1.52521
nD	589.3	1.52732
nd	587.6	1.52740
ne	546.1	1.52942
nF	486.1	1.53326
nF'	480.0	1.53373
ng	435.8	1.53778
nh	404.7	1.54151
ni	365.0	1.54783

分散式の常数 Constants of Dispersion Formula	
A0	2.3028575
A1	$-1.1402225 \times 10^{-2}$
A2	1.1233487×10^{-2}
A3	1.7866325×10^{-4}
A4	$-7.1547007 \times 10^{-7}$
A5	1.1484315×10^{-7}

dn/dTの分散常数 Constants of Dispersion dn/dT abs.	
D0	5.28×10^{-6}
D1	1.64×10^{-8}
D2	-1.95×10^{-10}
E0	4.09×10^{-7}
E1	6.61×10^{-10}
$\lambda_{TK} (\mu m)$	0.179

部分分散および部分分散比 Partial Dispersions and Relative Partial Dispersions			
nC-nt	nC-nA'	nd-nC	ne-nC
0.00748	0.00306	0.00261	0.00463
$\theta_{C,t}$	$\theta_{C,A'}$	$\theta_{d,C}$	$\theta_{e,C}$
0.883	0.361	0.308	0.547
ng-nd	ng-nF	nh-ng	ni-ng
0.01038	0.00452	0.00373	0.01005
$\theta_{g,d}$	$\theta_{g,F(\Delta)}$	$\theta_{h,g}$	$\theta_{i,g}$
1.226	0.534 (-0.0054)	0.440	1.187
nC'-nt	ne-nC'	nF'-ne	ni-nF'
0.00790	0.00421	0.00431	0.01410
$\theta'_{C',t}$	$\theta'_{e,C'}$	$\theta'_{F',e}$	$\theta'_{i,F'}$
0.927	0.494	0.506	1.655

機械的性質 Mechanical Properties	熱的性質 Thermal Properties
ヌープ硬さ Hk Knoop Hardness 560 (6)	転移点 Tg (°C) Transformation Point 495
ビッカース硬さ Hv Vickers Hardness 514	屈伏点 At (°C) Yielding Point 549
摩耗度 Ha Abrasion 80	線膨張係数 $\alpha (\times 10^{-7} \text{°C}^{-1})$ Thermal Expansion
ヤング率 E ($\times 10^8 \text{N} \cdot \text{m}^{-2}$) Young's Modulus 542	(-30~+70°C) 61 (+100~+300°C) 74
剛性率 G ($\times 10^8 \text{N} \cdot \text{m}^{-2}$) Modulus of Rigidity 216	熱伝導率 $\lambda (\text{W} \cdot \text{m}^{-1} \cdot \text{K}^{-1})$ Thermal Conductivity 0.989
ポアソン比 σ Poisson Ratio 0.251	比熱 Cp ($\text{J} \cdot \text{kg}^{-1} \cdot \text{K}^{-1}$) Specific Heat 833
化学的性質 Chemical Properties	その他 Other Properties
耐水性(粉末法) RW Water Resistance 3	泡 B Bubbles
耐酸性(粉末法) RA Acid Resistance 4	着色度 C Coloration 34/29
耐久性(表面法) DW Chemical Durability 1	比重 S.g Specific Gravity 2.45
備考 Remarks	生産頻度 PF Production frequency

内部透過率 τ Internal Transmittance		
$\lambda(\text{nm})$	3mm	10mm
270	0.126	
280	0.272	0.013
290	0.433	0.062
300	0.603	0.186
310	0.746	0.376
320	0.848	0.577
330	0.912	0.736
340	0.953	0.851
350	0.974	0.915
360	0.985	0.951
370	0.991	0.969
380	0.993	0.977
390	0.995	0.983
400	0.996	0.987
420	0.996	0.989
440	0.997	0.990
460	0.997	0.991
480	0.998	0.993
500	0.998	0.994
550	0.998	0.995
600	0.998	0.994
650	0.998	0.995
700	0.998	0.996
800	0.998	0.996
1060	0.999	0.997
1500	0.996	0.988
2000	0.986	0.954

屈折率の温度係数 Temperature Coefficients of Refractive Index						
	(dn/dT)rel. ($\times 10^{-6} \text{°C}^{-1}$)			(dn/dT)abs. ($\times 10^{-6} \text{°C}^{-1}$)		
(°C)	1548.1	d	g	1548.1	d	g
-40/-20	3.0	3.5	4.0	1.0	1.4	1.9
0/+20	3.6	4.2	4.8	2.1	2.7	3.3
+40/+60	3.7	4.3	5.0	2.5	3.1	3.8

525704 K-PMK30	nd	1.52500	ν d	70.4	nF-nC	0.00746
	ne	1.52679	ν e	70.1	nF'-nC'	0.00751

屈折率 Refractive Indices		
n1548	1548.1	1.50965
n1309	1308.5	1.51249
nt	1014.0	1.51604
nA'	768.2	1.51999
nr	706.5	1.52136
nC	656.3	1.52270
nC'	643.9	1.52307
nD	589.3	1.52494
nd	587.6	1.52500
ne	546.1	1.52679
nF	486.1	1.53016
nF'	480.0	1.53058
ng	435.8	1.53413
nh	404.7	1.53739
ni	365.0	1.54286

分散式の常数 Constants of Dispersion Formula	
A0	2.2984199
A1	$-9.8977917 \times 10^{-3}$
A2	1.0454435×10^{-2}
A3	$-1.1762246 \times 10^{-5}$
A4	2.2206780×10^{-5}
A5	$-1.2212713 \times 10^{-6}$

dn/dTの分散常数 Constants of Dispersion dn/dT abs.	
D0	3.49×10^{-7}
D1	1.51×10^{-8}
D2	-7.35×10^{-11}
E0	3.65×10^{-7}
E1	5.07×10^{-10}
$\lambda_{TK} (\mu m)$	0.174

部分分散および部分分散比 Partial Dispersions and Relative Partial Dispersions			
nC-nt	nC-nA'	nd-nC	ne-nC
0.00666	0.00271	0.00230	0.00409
$\theta_{C,t}$	$\theta_{C,A'}$	$\theta_{d,C}$	$\theta_{e,C}$
0.893	0.363	0.308	0.548
ng-nd	ng-nF	nh-ng	ni-ng
0.00913	0.00397	0.00326	0.00873
$\theta_{g,d}$	$\theta_{g,F(\Delta)}$	$\theta_{h,g}$	$\theta_{i,g}$
1.224	0.532 (0.0064)	0.437	1.170
nC'-nt	ne-nC'	nF'-ne	ni-nF'
0.00703	0.00372	0.00379	0.01228
$\theta_{C',t}$	$\theta_{e,C'}$	$\theta_{F',e}$	$\theta_{i,F'}$
0.936	0.495	0.505	1.635

機械的性質 Mechanical Properties	熱的性質 Thermal Properties
ヌープ硬さ Hk Knoop Hardness 521 (5)	転移点 Tg (°C) Transformation Point 528
ビッカース硬さ Hv Vickers Hardness 530	屈伏点 At (°C) Yielding Point 572
摩耗度 Ha Abrasion 231	線膨張係数 $\alpha (\times 10^{-7} \text{°C}^{-1})$ Thermal Expansion
ヤング率 E ($\times 10^8 \text{N} \cdot \text{m}^{-2}$) Young's Modulus 756	(-30~+70°C) 83 (+100~+300°C) 87
剛性率 G ($\times 10^8 \text{N} \cdot \text{m}^{-2}$) Modulus of Rigidity 314	熱伝導率 $\lambda (\text{W} \cdot \text{m}^{-1} \cdot \text{K}^{-1})$ Thermal Conductivity 0.853
ポアソン比 σ Poisson Ratio 0.204	比熱 Cp ($\text{J} \cdot \text{kg}^{-1} \cdot \text{K}^{-1}$) Specific Heat 754
化学的性質 Chemical Properties	その他 Other Properties
耐水性(粉末法) RW Water Resistance 1	泡 B Bubbles
耐酸性(粉末法) RA Acid Resistance 1	着色度 C Coloration 33/29
耐久性(表面法) DW Chemical Durability 2	比重 S.g Specific Gravity 2.60
備考 Remarks	生産頻度 PF Production frequency C

内部透過率 τ Internal Transmittance		
$\lambda(\text{nm})$	3mm	10mm
270		
280	0.360	0.033
290	0.539	0.127
300	0.726	0.346
310	0.844	0.571
320	0.917	0.749
330	0.955	0.857
340	0.975	0.920
350	0.983	0.946
360	0.988	0.963
370	0.991	0.970
380	0.993	0.977
390	0.994	0.982
400	0.995	0.985
420	0.996	0.987
440	0.996	0.987
460	0.996	0.987
480	0.997	0.989
500	0.997	0.992
550	0.999	0.997
600	0.999	0.998
650	0.999	0.998
700	0.999	0.998
800	0.999	0.998
1060	0.999	0.999
1500	0.992	0.976
2000	0.951	0.848

屈折率の温度係数 Temperature Coefficients of Refractive Index						
	(dn/dT)rel. ($\times 10^{-6} \text{°C}^{-1}$)			(dn/dT)abs. ($\times 10^{-6} \text{°C}^{-1}$)		
(°C)	1548.1	d	g	1548.1	d	g
-40/-20	1.4	1.8	2.2	-0.7	-0.3	0.1
0/+20	1.6	2.0	2.5	0.1	0.5	1.0
+40/+60	1.7	2.2	2.8	0.5	1.0	1.6

558682 K-PMK155	nd	1.55820	ν d	68.2	nF-nC	0.00818
	ne	1.56015	ν e	68.0	nF'-nC'	0.00824

屈折率 Refractive Indices		
n1548	1548.1	1.54201
n1309	1308.5	1.54489
nt	1014.0	1.54859
nA'	768.2	1.55275
nr	706.5	1.55423
nC	656.3	1.55568
nC'	643.9	1.55608
nD	589.3	1.55812
nd	587.6	1.55820
ne	546.1	1.56015
nF	486.1	1.56386
nF'	480.0	1.56432
ng	435.8	1.56823
nh	404.7	1.57182
ni	365.0	1.57789

分散式の常数 Constants of Dispersion Formula	
A0	2.3976032
A1	$-1.0221810 \times 10^{-2}$
A2	1.1147767×10^{-2}
A3	2.1523841×10^{-4}
A4	$-9.6159222 \times 10^{-6}$
A5	5.5668375×10^{-7}

dn/dTの分散常数 Constants of Dispersion dn/dT abs.	
D0	-4.74×10^{-6}
D1	1.09×10^{-8}
D2	-1.47×10^{-10}
E0	4.33×10^{-7}
E1	4.30×10^{-10}
$\lambda_{TK} (\mu m)$	0.162

部分分散および部分分散比 Partial Dispersions and Relative Partial Dispersions			
nC-nt	nC-nA'	nd-nC	ne-nC
0.00709	0.00293	0.00252	0.00447
$\theta_{C,t}$	$\theta_{C,A'}$	$\theta_{d,C}$	$\theta_{e,C}$
0.867	0.358	0.308	0.546
ng-nd	ng-nF	nh-ng	ni-ng
0.01003	0.00437	0.00359	0.00966
$\theta_{g,d}$	$\theta_{g,F(\Delta)}$	$\theta_{h,g}$	$\theta_{i,g}$
1.226	0.534 (0.0045)	0.439	1.181
nC'-nt	ne-nC'	nF'-ne	ni-nF'
0.00749	0.00407	0.00417	0.01357
$\theta_{C',t}$	$\theta_{e,C'}$	$\theta_{F',e}$	$\theta_{i,F'}$
0.909	0.494	0.506	1.647

機械的性質 Mechanical Properties	熱的性質 Thermal Properties
ヌープ硬さ Hk Knoop Hardness 471 (5)	転移点 Tg (°C) Transformation Point 460
ビッカース硬さ Hv Vickers Hardness 498	屈伏点 At (°C) Yielding Point 492
摩耗度 Ha Abrasion 270	線膨張係数 $\alpha (\times 10^{-7} \text{°C}^{-1})$ Thermal Expansion
ヤング率 E ($\times 10^8 \text{N} \cdot \text{m}^{-2}$) Young's Modulus 911	(-30~+70°C) 96 (+100~+300°C) 126
剛性率 G ($\times 10^8 \text{N} \cdot \text{m}^{-2}$) Modulus of Rigidity 359	熱伝導率 $\lambda (\text{W} \cdot \text{m}^{-1} \cdot \text{K}^{-1})$ Thermal Conductivity 0.936
ポアソン比 σ Poisson Ratio 0.268	比熱 Cp ($\text{J} \cdot \text{kg}^{-1} \cdot \text{K}^{-1}$) Specific Heat 825
化学的性質 Chemical Properties	その他 Other Properties
耐水性(粉末法) RW Water Resistance 1	泡 B Bubbles
耐酸性(粉末法) RA Acid Resistance 5	着色度 C Coloration 35/28
耐久性(表面法) DW Chemical Durability 5*	比重 S.g Specific Gravity 2.74
備考 Remarks See details in appndix	生産頻度 PF Production frequency

内部透過率 τ Internal Transmittance		
$\lambda(\text{nm})$	3mm	10mm
270	0.326	0.024
280	0.411	0.051
290	0.505	0.103
300	0.615	0.198
310	0.726	0.345
320	0.825	0.526
330	0.898	0.700
340	0.945	0.827
350	0.972	0.910
360	0.986	0.954
370	0.993	0.976
380	0.996	0.987
390	0.997	0.992
400	0.998	0.994
420	0.998	0.994
440	0.998	0.994
460	0.998	0.996
480	0.999	0.997
500	0.999	0.998
550	0.999	0.999
600	0.999	0.999
650	0.999	0.998
700	0.999	0.998
800	0.999	0.999
1060	0.999	0.999
1500	0.998	0.994
2000	0.988	0.962

屈折率の温度係数 Temperature Coefficients of Refractive Index						
	(dn/dT)rel. ($\times 10^{-6} \text{°C}^{-1}$)			(dn/dT)abs. ($\times 10^{-6} \text{°C}^{-1}$)		
(°C)	1548.1	d	g	1548.1	d	g
-40/-20	-1.0	-0.5	0.0	-3.0	-2.6	-2.1
0/+20	-0.6	-0.1	0.5	-2.2	-1.7	-1.1
+40/+60	-0.7	-0.2	0.4	-1.9	-1.4	-0.8

592607 K-PSK100	nd	1.59170	ν d	60.7	nF-nC	0.00975
	ne	1.59403	ν e	60.3	nF'-nC'	0.00985

屈折率 Refractive Indices		
n1548	1548.1	1.57440
n1309	1308.5	1.57711
nt	1014.0	1.58084
nA'	768.2	1.58536
nr	706.5	1.58705
nC	656.3	1.58873
nC'	643.9	1.58921
nD	589.3	1.59161
nd	587.6	1.59170
ne	546.1	1.59403
nF	486.1	1.59848
nF'	480.0	1.59906
ng	435.8	1.60382
nh	404.7	1.60824
ni	365.0	1.61572

分散式の常数 Constants of Dispersion Formula	
A0	2.4948235
A1	$-9.1228463 \times 10^{-3}$
A2	1.3721276×10^{-2}
A3	2.3830265×10^{-4}
A4	4.1915859×10^{-6}
A5	$-3.8958137 \times 10^{-7}$

dn/dTの分散常数 Constants of Dispersion dn/dT abs.	
D0	-8.26×10^{-7}
D1	2.08×10^{-8}
D2	-1.40×10^{-10}
E0	5.32×10^{-7}
E1	-2.69×10^{-10}
$\lambda_{TK} (\mu m)$	0.175

部分分散および部分分散比 Partial Dispersions and Relative Partial Dispersions			
nC-nt	nC-nA'	nd-nC	ne-nC
0.00789	0.00337	0.00297	0.00530
$\theta_{C,t}$	$\theta_{C,A'}$	$\theta_{d,C}$	$\theta_{e,C}$
0.809	0.346	0.305	0.544
ng-nd	ng-nF	nh-ng	ni-ng
0.01212	0.00534	0.00442	0.01190
$\theta_{g,d}$	$\theta_{g,F(\Delta)}$	$\theta_{h,g}$	$\theta_{i,g}$
1.243	0.548 (0.0059)	0.453	1.221
nC'-nt	ne-nC'	nF'-ne	ni-nF'
0.00837	0.00482	0.00503	0.01666
$\theta_{C',t}$	$\theta_{e,C'}$	$\theta_{F',e}$	$\theta_{i,F'}$
0.850	0.489	0.511	1.691

機械的性質 Mechanical Properties	熱的性質 Thermal Properties
ヌープ硬さ Hk Knoop Hardness 384 (4)	転移点 Tg (°C) Transformation Point 390
ビッカース硬さ Hv Vickers Hardness 390	屈伏点 At (°C) Yielding Point 415
摩耗度 Ha Abrasion 400	線膨張係数 $\alpha (\times 10^{-7} \text{°C}^{-1})$ Thermal Expansion
ヤング率 E ($\times 10^8 \text{N} \cdot \text{m}^{-2}$) Young's Modulus 700	(-30~+70°C) 95 (+100~+300°C) 114
剛性率 G ($\times 10^8 \text{N} \cdot \text{m}^{-2}$) Modulus of Rigidity 227	熱伝導率 $\lambda (\text{W} \cdot \text{m}^{-1} \cdot \text{K}^{-1})$ Thermal Conductivity 0.715
ポアソン比 σ Poisson Ratio 0.262	比熱 Cp ($\text{J} \cdot \text{kg}^{-1} \cdot \text{K}^{-1}$) Specific Heat 679
化学的性質 Chemical Properties	その他 Other Properties
耐水性(粉末法) RW Water Resistance 1	泡 B Bubbles
耐酸性(粉末法) RA Acid Resistance 6	着色度 C Coloration 36/32
耐久性(表面法) DW Chemical Durability 1	比重 S.g Specific Gravity 3.24
備考 Remarks	生産頻度 PF Production frequency C

内部透過率 τ Internal Transmittance		
$\lambda(\text{nm})$	3mm	10mm
270		
280		
290		
300		
310	0.240	
320	0.390	0.043
330	0.662	0.254
340	0.856	0.596
350	0.944	0.827
360	0.977	0.927
370	0.989	0.966
380	0.993	0.978
390	0.995	0.985
400	0.996	0.988
420	0.996	0.990
440	0.997	0.991
460	0.997	0.992
480	0.998	0.995
500	0.998	0.996
550	0.999	0.998
600	0.999	0.998
650	0.999	0.998
700	0.999	0.998
800	0.999	0.998
1060	0.999	0.999
1500	0.999	0.997
2000	0.989	0.964

屈折率の温度係数 Temperature Coefficients of Refractive Index						
	(dn/dT)rel. ($\times 10^{-6} \text{°C}^{-1}$)			(dn/dT)abs. ($\times 10^{-6} \text{°C}^{-1}$)		
(°C)	1548.1	d	g	1548.1	d	g
-40/-20	0.4	1.1	2.0	-1.7	-1.0	-0.2
0/+20	1.1	1.8	2.7	-0.5	0.2	1.0
+40/+60	1.3	2.0	2.9	0.1	0.8	1.6

613590 K-PSK200	nd	1.61305	ν d	59.0	nF-nC	0.01039
	ne	1.61553	ν e	58.7	nF'-nC'	0.01049

屈折率 Refractive Indices		
n1548	1548.1	1.59512
n1309	1308.5	1.59782
nt	1014.0	1.60160
nA'	768.2	1.60634
nr	706.5	1.60812
nC	656.3	1.60991
nC'	643.9	1.61041
nD	589.3	1.61296
nd	587.6	1.61305
ne	546.1	1.61553
nF	486.1	1.62030
nF'	480.0	1.62090
ng	435.8	1.62599
nh	404.7	1.63074
ni	365.0	1.63884

分散式の常数 Constants of Dispersion Formula	
A0	2.5593395
A1	$-8.8787219 \times 10^{-3}$
A2	1.5115397×10^{-2}
A3	2.0356510×10^{-4}
A4	7.5991137×10^{-6}
A5	$-1.5375246 \times 10^{-7}$

dn/dTの分散常数 Constants of Dispersion dn/dT abs.	
D0	-3.04×10^{-6}
D1	8.75×10^{-9}
D2	-5.81×10^{-11}
E0	5.61×10^{-7}
E1	7.53×10^{-10}
$\lambda_{TK} (\mu m)$	0.187

部分分散および部分分散比 Partial Dispersions and Relative Partial Dispersions			
nC-nt	nC-nA'	nd-nC	ne-nC
0.00831	0.00357	0.00314	0.00562
θ C,t	θ C,A'	θ d,C	θ e,C
0.800	0.344	0.302	0.541
ng-nd	ng-nF	nh-ng	ni-ng
0.01294	0.00569	0.00475	0.01285
θ g,d	θ g,F(Δ)	θ h,g	θ i,g
1.245	0.548 (0.0027)	0.457	1.237
nC'-nt	ne-nC'	nF'-ne	ni-nF'
0.00881	0.00512	0.00537	0.01794
θ 'C',t	θ 'e,C'	θ 'F',e	θ 'i,F'
0.840	0.488	0.512	1.710

機械的性質 Mechanical Properties	熱的性質 Thermal Properties
ヌープ硬さ Hk Knoop Hardness 425 (4)	転移点 Tg (°C) Transformation Point 386
ビッカース硬さ Hv Vickers Hardness 451	屈伏点 At (°C) Yielding Point 412
摩耗度 Ha Abrasion 474	線膨張係数 α ($\times 10^{-7} \text{°C}^{-1}$) Thermal Expansion
ヤング率 E ($\times 10^8 \text{N} \cdot \text{m}^{-2}$) Young's Modulus 719	(-30~+70°C) 100 (+100~+300°C) 123
剛性率 G ($\times 10^8 \text{N} \cdot \text{m}^{-2}$) Modulus of Rigidity 282	熱伝導率 λ ($\text{W} \cdot \text{m}^{-1} \cdot \text{K}^{-1}$) Thermal Conductivity 0.688
ポアソン比 σ Poisson Ratio 0.275	比熱 Cp ($\text{J} \cdot \text{kg}^{-1} \cdot \text{K}^{-1}$) Specific Heat 667
化学的性質 Chemical Properties	その他 Other Properties
耐水性(粉末法) RW Water Resistance 1	泡 B Bubbles
耐酸性(粉末法) RA Acid Resistance 4	着色度 C Coloration 34/31
耐久性(表面法) DW Chemical Durability 1	比重 S.g Specific Gravity 3.38
備考 Remarks	生産頻度 PF Production frequency

内部透過率 τ Internal Transmittance		
λ (nm)	3mm	10mm
270		
280		
290	0.342	0.028
300	0.409	0.051
310	0.714	0.326
320	0.873	0.636
330	0.940	0.816
340	0.970	0.906
350	0.985	0.952
360	0.990	0.970
370	0.994	0.982
380	0.996	0.987
390	0.996	0.989
400	0.997	0.990
420	0.997	0.990
440	0.997	0.992
460	0.997	0.993
480	0.998	0.994
500	0.998	0.996
550	0.999	0.999
600	0.999	0.999
650	0.999	0.999
700	0.999	0.998
800	0.999	0.999
1060	0.999	0.999
1500	0.998	0.994
2000	0.981	0.939

屈折率の温度係数 Temperature Coefficients of Refractive Index						
	(dn/dT)rel. ($\times 10^{-6} \text{°C}^{-1}$)			(dn/dT)abs. ($\times 10^{-6} \text{°C}^{-1}$)		
(°C)	1548.1	d	g	1548.1	d	g
-40/-20	0.1	0.8	1.6	-2.0	-1.4	-0.6
0/+20	0.1	0.9	1.8	-1.5	-0.7	0.1
+40/+60	0.0	0.9	1.9	-1.2	-0.4	0.6

600656 K-PSK300	nd	1.59950	ν d	65.6	nF-nC	0.00914
	ne	1.60168	ν e	65.3	nF'-nC'	0.00922

屈折率 Refractive Indices		
n1548	1548.1	1.58281
n1309	1308.5	1.58553
nt	1014.0	1.58918
nA'	768.2	1.59353
nr	706.5	1.59513
nC	656.3	1.59672
nC'	643.9	1.59716
nD	589.3	1.59942
nd	587.6	1.59950
ne	546.1	1.60168
nF	486.1	1.60586
nF'	480.0	1.60638
ng	435.8	1.61081
nh	404.7	1.61489
ni	365.0	1.62179

分散式の常数 Constants of Dispersion Formula	
A0	2.5225158
A1	$-9.4326823 \times 10^{-3}$
A2	1.2761452×10^{-2}
A3	2.8145417×10^{-4}
A4	$-8.1267471 \times 10^{-6}$
A5	2.3400154×10^{-7}

dn/dTの分散常数 Constants of Dispersion dn/dT abs.	
D0	-1.33×10^{-5}
D1	1.14×10^{-8}
D2	-3.00×10^{-11}
E0	4.03×10^{-7}
E1	3.80×10^{-10}
$\lambda_{TK} (\mu m)$	0.173

部分分散および部分分散比 Partial Dispersions and Relative Partial Dispersions			
nC-nt	nC-nA'	nd-nC	ne-nC
0.00754	0.00319	0.00278	0.00496
$\theta_{C,t}$	$\theta_{C,A'}$	$\theta_{d,C}$	$\theta_{e,C}$
0.825	0.349	0.304	0.543
ng-nd	ng-nF	nh-ng	ni-ng
0.01131	0.00495	0.00408	0.01098
$\theta_{g,d}$	$\theta_{g,F(\Delta)}$	$\theta_{h,g}$	$\theta_{i,g}$
1.237	0.542 (0.0077)	0.446	1.201
nC'-nt	ne-nC'	nF'-ne	ni-nF'
0.00798	0.00452	0.00470	0.01541
$\theta'_{C',t}$	$\theta'_{e,C'}$	$\theta'_{F',e}$	$\theta'_{i,F'}$
0.866	0.490	0.510	1.671

機械的性質 Mechanical Properties	熱的性質 Thermal Properties
ヌープ硬さ Hk Knoop Hardness 415 (4)	転移点 Tg (°C) Transformation Point 463
ビッカース硬さ Hv Vickers Hardness 418	屈伏点 At (°C) Yielding Point 498
摩耗度 Ha Abrasion 504	線膨張係数 $\alpha (\times 10^{-7} \text{°C}^{-1})$ Thermal Expansion
ヤング率 E ($\times 10^8 \text{N} \cdot \text{m}^{-2}$) Young's Modulus 715	(-30~+70°C) 105 (+100~+300°C) 128
剛性率 G ($\times 10^8 \text{N} \cdot \text{m}^{-2}$) Modulus of Rigidity 282	熱伝導率 $\lambda (\text{W} \cdot \text{m}^{-1} \cdot \text{K}^{-1})$ Thermal Conductivity 0.601
ポアソン比 σ Poisson Ratio 0.267	比熱 Cp ($\text{J} \cdot \text{kg}^{-1} \cdot \text{K}^{-1}$) Specific Heat 608
化学的性質 Chemical Properties	その他 Other Properties
耐水性(粉末法) RW Water Resistance 1	泡 B Bubbles
耐酸性(粉末法) RA Acid Resistance 4	着色度 C Coloration 36/30
耐久性(表面法) DW Chemical Durability 2	比重 S.g Specific Gravity 3.49
備考 Remarks	生産頻度 PF Production frequency B

内部透過率 τ Internal Transmittance		
$\lambda(\text{nm})$	3mm	10mm
270	0.130	
280	0.240	
290	0.344	0.029
300	0.465	0.078
310	0.599	0.182
320	0.743	0.373
330	0.846	0.574
340	0.914	0.742
350	0.953	0.852
360	0.973	0.913
370	0.984	0.951
380	0.990	0.967
390	0.992	0.976
400	0.993	0.978
420	0.992	0.974
440	0.992	0.977
460	0.994	0.982
480	0.996	0.987
500	0.997	0.990
550	0.998	0.996
600	0.998	0.994
650	0.997	0.993
700	0.997	0.993
800	0.997	0.993
1060	0.999	0.997
1500	0.997	0.991
2000	0.977	0.926

屈折率の温度係数 Temperature Coefficients of Refractive Index						
	(dn/dT)rel. ($\times 10^{-6} \text{°C}^{-1}$)			(dn/dT)abs. ($\times 10^{-6} \text{°C}^{-1}$)		
(°C)	1548.1	d	g	1548.1	d	g
-40/-20	-4.8	-4.4	-3.9	-6.9	-6.6	-6.1
0/+20	-4.8	-4.4	-3.8	-6.4	-6.0	-5.5
+40/+60	-4.8	-4.3	-3.7	-6.0	-5.5	-5.0

595678 K-PSK400	nd	1.59500	ν d	67.8	nF-nC	0.00877
	ne	1.59709	ν e	67.5	nF'-nC'	0.00884

屈折率 Refractive Indices		
n1548	1548.1	1.57986
n1309	1308.5	1.58213
nt	1014.0	1.58530
nA'	768.2	1.58931
nr	706.5	1.59082
nC	656.3	1.59233
nC'	643.9	1.59276
nD	589.3	1.59492
nd	587.6	1.59500
ne	546.1	1.59709
nF	486.1	1.60110
nF'	480.0	1.60160
ng	435.8	1.60587
nh	404.7	1.60981
ni	365.0	1.61651

分散式の常数 Constants of Dispersion Formula	
A0	2.5082367
A1	$-7.3364341 \times 10^{-3}$
A2	1.2625639×10^{-2}
A3	2.2697479×10^{-4}
A4	$-8.7309089 \times 10^{-6}$
A5	6.2693824×10^{-7}

dn/dTの分散常数 Constants of Dispersion dn/dT abs.	
D0	-1.29×10^{-5}
D1	6.41×10^{-9}
D2	-4.23×10^{-11}
E0	4.04×10^{-7}
E1	7.68×10^{-10}
$\lambda_{TK} (\mu m)$	0.173

部分分散および部分分散比 Partial Dispersions and Relative Partial Dispersions			
nC-nt	nC-nA'	nd-nC	ne-nC
0.00703	0.00302	0.00267	0.00476
$\theta_{C,t}$	$\theta_{C,A'}$	$\theta_{d,C}$	$\theta_{e,C}$
0.802	0.344	0.304	0.543
ng-nd	ng-nF	nh-ng	ni-ng
0.01087	0.00477	0.00394	0.01064
$\theta_{g,d}$	$\theta_{g,F(\Delta)}$	$\theta_{h,g}$	$\theta_{i,g}$
1.239	0.544 (0.0139)	0.449	1.213
nC'-nt	ne-nC'	nF'-ne	ni-nF'
0.00746	0.00433	0.00451	0.01491
$\theta_{C',t}$	$\theta_{e,C'}$	$\theta_{F',e}$	$\theta_{i,F'}$
0.844	0.490	0.510	1.687

機械的性質 Mechanical Properties	熱的性質 Thermal Properties
ヌープ硬さ Hk Knoop Hardness 390 (4)	転移点 Tg (°C) Transformation Point 568
ビッカース硬さ Hv Vickers Hardness 380	屈伏点 At (°C) Yielding Point 597
摩耗度 Ha Abrasion 367	線膨張係数 $\alpha (\times 10^{-7} \text{°C}^{-1})$ Thermal Expansion
ヤング率 E ($\times 10^8 \text{N} \cdot \text{m}^{-2}$) Young's Modulus 809	(-30~+70°C) 101 (+100~+300°C) 129
剛性率 G ($\times 10^8 \text{N} \cdot \text{m}^{-2}$) Modulus of Rigidity 312	熱伝導率 $\lambda (\text{W} \cdot \text{m}^{-1} \cdot \text{K}^{-1})$ Thermal Conductivity 0.629
ポアソン比 σ Poisson Ratio 0.295	比熱 Cp ($\text{J} \cdot \text{kg}^{-1} \cdot \text{K}^{-1}$) Specific Heat 537
化学的性質 Chemical Properties	その他 Other Properties
耐水性(粉末法) RW Water Resistance 1	泡 B Bubbles
耐酸性(粉末法) RA Acid Resistance 1	着色度 C Coloration 37/32
耐久性(表面法) DW Chemical Durability 1	比重 S.g Specific Gravity 4.05
備考 Remarks	生産頻度 PF Production frequency

内部透過率 τ Internal Transmittance		
$\lambda(\text{nm})$	3mm	10mm
270		
280		
290	0.094	
300	0.173	
310	0.304	0.019
320	0.472	0.082
330	0.639	0.225
340	0.782	0.441
350	0.883	0.660
360	0.939	0.814
370	0.970	0.905
380	0.985	0.950
390	0.992	0.976
400	0.995	0.985
420	0.998	0.993
440	0.998	0.994
460	0.998	0.995
480	0.998	0.996
500	0.999	0.997
550	0.999	0.997
600	0.999	0.997
650	0.998	0.996
700	0.999	0.997
800	0.999	0.997
1060	0.999	0.998
1500	0.999	0.999
2000	0.999	0.998

屈折率の温度係数 Temperature Coefficients of Refractive Index						
	(dn/dT)rel. ($\times 10^{-6} \text{°C}^{-1}$)			(dn/dT)abs. ($\times 10^{-6} \text{°C}^{-1}$)		
(°C)	1548.1	d	g	1548.1	d	g
-40/-20	-4.4	-4.0	-3.6	-6.5	-6.2	-5.8
0/+20	-4.5	-4.1	-3.6	-6.1	-5.7	-5.2
+40/+60	-4.7	-4.2	-3.6	-5.9	-5.4	-4.8

552720 K-PSK500	nd	1.55215	ν d	72.0	nF-nC	0.00767
	ne	1.55398	ν e	71.7	nF'-nC'	0.00773

屈折率 Refractive Indices		
n1548	1548.1	1.53859
n1309	1308.5	1.54069
nt	1014.0	1.54358
nA'	768.2	1.54716
nr	706.5	1.54849
nC	656.3	1.54982
nC'	643.9	1.55019
nD	589.3	1.55208
nd	587.6	1.55215
ne	546.1	1.55398
nF	486.1	1.55749
nF'	480.0	1.55792
ng	435.8	1.56164
nh	404.7	1.56506
ni	365.0	1.57086

分散式の常数 Constants of Dispersion Formula	
A0	2.3790004
A1	$-6.7834145 \times 10^{-3}$
A2	1.0749512×10^{-2}
A3	1.7555369×10^{-4}
A4	$-4.6285653 \times 10^{-6}$
A5	2.8065215×10^{-7}

dn/dTの分散常数 Constants of Dispersion dn/dT abs.	
D0	-1.34×10^{-5}
D1	6.83×10^{-9}
D2	1.81×10^{-11}
E0	3.74×10^{-7}
E1	5.55×10^{-10}
$\lambda_{TK} (\mu m)$	0.195

部分分散および部分分散比 Partial Dispersions and Relative Partial Dispersions			
nC-nt	nC-nA'	nd-nC	ne-nC
0.00624	0.00266	0.00233	0.00416
$\theta_{C,t}$	$\theta_{C,A'}$	$\theta_{d,C}$	$\theta_{e,C}$
0.814	0.347	0.304	0.542
ng-nd	ng-nF	nh-ng	ni-ng
0.00949	0.00415	0.00342	0.00922
$\theta_{g,d}$	$\theta_{g,F(\Delta)}$	$\theta_{h,g}$	$\theta_{i,g}$
1.237	0.541 (0.0179)	0.446	1.202
nC'-nt	ne-nC'	nF'-ne	ni-nF'
0.00661	0.00379	0.00394	0.01294
$\theta_{C',t}$	$\theta_{e,C'}$	$\theta_{F',e}$	$\theta_{i,F'}$
0.855	0.490	0.510	1.674

機械的性質 Mechanical Properties	熱的性質 Thermal Properties
ヌープ硬さ Hk Knoop Hardness 390 (4)	転移点 Tg (°C) Transformation Point 495
ビッカース硬さ Hv Vickers Hardness 380	屈伏点 At (°C) Yielding Point 526
摩耗度 Ha Abrasion 433	線膨張係数 $\alpha (\times 10^{-7} \text{°C}^{-1})$ Thermal Expansion
ヤング率 E ($\times 10^8 \text{N} \cdot \text{m}^{-2}$) Young's Modulus 782	(-30~+70°C) 108 (+100~+300°C) 129
剛性率 G ($\times 10^8 \text{N} \cdot \text{m}^{-2}$) Modulus of Rigidity 302	熱伝導率 $\lambda (\text{W} \cdot \text{m}^{-1} \cdot \text{K}^{-1})$ Thermal Conductivity 0.714
ポアソン比 σ Poisson Ratio 0.297	比熱 Cp ($\text{J} \cdot \text{kg}^{-1} \cdot \text{K}^{-1}$) Specific Heat 607
化学的性質 Chemical Properties	その他 Other Properties
耐水性(粉末法) RW Water Resistance 1	泡 B Bubbles
耐酸性(粉末法) RA Acid Resistance 2	着色度 C Coloration 34/27
耐久性(表面法) DW Chemical Durability 1	比重 S.g Specific Gravity 3.76
備考 Remarks	生産頻度 PF Production frequency

内部透過率 τ Internal Transmittance		
$\lambda(\text{nm})$	3mm	10mm
270	0.414	0.053
280	0.487	0.090
290	0.585	0.168
300	0.692	0.293
310	0.796	0.467
320	0.874	0.645
330	0.929	0.785
340	0.962	0.881
350	0.982	0.939
360	0.990	0.967
370	0.994	0.979
380	0.996	0.986
390	0.997	0.991
400	0.997	0.991
420	0.997	0.990
440	0.997	0.990
460	0.997	0.991
480	0.997	0.992
500	0.998	0.993
550	0.998	0.994
600	0.997	0.993
650	0.997	0.992
700	0.997	0.992
800	0.997	0.993
1060	0.998	0.996
1500	0.999	0.997
2000	0.999	0.998

屈折率の温度係数 Temperature Coefficients of Refractive Index						
	(dn/dT)rel. ($\times 10^{-6} \text{°C}^{-1}$)			(dn/dT)abs. ($\times 10^{-6} \text{°C}^{-1}$)		
(°C)	1548.1	d	g	1548.1	d	g
-40/-20	-4.1	-3.8	-3.3	-6.1	-5.9	-5.5
0/+20	-4.4	-4.1	-3.6	-5.9	-5.6	-5.1
+40/+60	-4.5	-4.1	-3.5	-5.7	-5.3	-4.7

587596 K-CSK120	nd	1.58700	ν d	59.6	nF-nC	0.00985
	ne	1.58935	ν e	59.4	nF'-nC'	0.00993

屈折率 Refractive Indices		
n1548	1548.1	1.56859
n1309	1308.5	1.57167
nt	1014.0	1.57575
nA'	768.2	1.58048
nr	706.5	1.58224
nC	656.3	1.58398
nC'	643.9	1.58446
nD	589.3	1.58691
nd	587.6	1.58700
ne	546.1	1.58935
nF	486.1	1.59383
nF'	480.0	1.59439
ng	435.8	1.59917
nh	404.7	1.60361
ni	365.0	1.61115

分散式の常数 Constants of Dispersion Formula	
A0	2.4804566
A1	$-1.0719770 \times 10^{-2}$
A2	1.3563200×10^{-2}
A3	3.4918608×10^{-4}
A4	$-2.3041786 \times 10^{-5}$
A5	1.5937217×10^{-6}

dn/dTの分散常数 Constants of Dispersion dn/dT abs.	
D0	1.46×10^{-6}
D1	1.54×10^{-8}
D2	-2.77×10^{-11}
E0	5.04×10^{-7}
E1	3.24×10^{-10}
$\lambda_{TK} (\mu m)$	0.172

部分分散および部分分散比 Partial Dispersions and Relative Partial Dispersions			
nC-nt	nC-nA'	nd-nC	ne-nC
0.00823	0.00350	0.00302	0.00537
$\theta_{C,t}$	$\theta_{C,A'}$	$\theta_{d,C}$	$\theta_{e,C}$
0.836	0.355	0.307	0.545
ng-nd	ng-nF	nh-ng	ni-ng
0.01217	0.00534	0.00444	0.01198
$\theta_{g,d}$	$\theta_{g,F(\Delta)}$	$\theta_{h,g}$	$\theta_{i,g}$
1.236	0.542 (-0.0019)	0.451	1.216
nC'-nt	ne-nC'	nF'-ne	ni-nF'
0.00871	0.00489	0.00504	0.01676
$\theta_{C',t}$	$\theta_{e,C'}$	$\theta_{F',e}$	$\theta_{i,F'}$
0.877	0.492	0.508	1.688

機械的性質 Mechanical Properties	熱的性質 Thermal Properties
ヌープ硬さ Hk Knoop Hardness 582 (6)	転移点 Tg (°C) Transformation Point 498
ビッカース硬さ Hv Vickers Hardness 572	屈伏点 At (°C) Yielding Point 536
摩耗度 Ha Abrasion 110	線膨張係数 $\alpha (\times 10^{-7} \text{°C}^{-1})$ Thermal Expansion 72
ヤング率 E ($\times 10^8 \text{N} \cdot \text{m}^{-2}$) Young's Modulus 930	(-30~+70°C) 72 (+100~+300°C) 91
剛性率 G ($\times 10^8 \text{N} \cdot \text{m}^{-2}$) Modulus of Rigidity 372	熱伝導率 $\lambda (\text{W} \cdot \text{m}^{-1} \cdot \text{K}^{-1})$ Thermal Conductivity 0.999
ポアソン比 σ Poisson Ratio 0.250	比熱 Cp ($\text{J} \cdot \text{kg}^{-1} \cdot \text{K}^{-1}$) Specific Heat 727
化学的性質 Chemical Properties	その他 Other Properties
耐水性(粉末法) RW Water Resistance 1	泡 B Bubbles
耐酸性(粉末法) RA Acid Resistance 4	着色度 C Coloration 35/31
耐久性(表面法) DW Chemical Durability 2	比重 S.g Specific Gravity 3.00
備考 Remarks	生産頻度 PF Production frequency A

内部透過率 τ Internal Transmittance		
$\lambda(\text{nm})$	3mm	10mm
270		
280		
290		
300	0.243	
310	0.536	0.125
320	0.782	0.443
330	0.904	0.713
340	0.957	0.866
350	0.980	0.935
360	0.990	0.967
370	0.995	0.983
380	0.996	0.990
390	0.998	0.994
400	0.998	0.996
420	0.998	0.996
440	0.999	0.996
460	0.999	0.996
480	0.999	0.998
500	0.999	0.998
550	0.999	0.999
600	0.999	0.998
650	0.999	0.998
700	0.999	0.998
800	0.999	0.998
1060	0.999	0.999
1500	0.999	0.998
2000	0.992	0.973

屈折率の温度係数 Temperature Coefficients of Refractive Index						
	(dn/dT)rel. ($\times 10^{-6} \text{°C}^{-1}$)			(dn/dT)abs. ($\times 10^{-6} \text{°C}^{-1}$)		
(°C)	1548.1	d	g	1548.1	d	g
-40/-20	2.1	2.7	3.5	0.0	0.6	1.3
0/+20	2.2	2.9	3.7	0.6	1.3	2.1
+40/+60	2.4	3.1	4.0	1.2	1.9	2.7

584569 K-CSK158	nd	1.58400	ν d	56.9	nF-nC	0.01027
	ne	1.58645	ν e	56.6	nF'-nC'	0.01037

屈折率 Refractive Indices		
n1548	1548.1	1.56627
n1309	1308.5	1.56896
nt	1014.0	1.57269
nA'	768.2	1.57737
nr	706.5	1.57913
nC	656.3	1.58089
nC'	643.9	1.58138
nD	589.3	1.58391
nd	587.6	1.58400
ne	546.1	1.58645
nF	486.1	1.59116
nF'	480.0	1.59175
ng	435.8	1.59678
nh	404.7	1.60146
ni	365.0	1.60945

分散式の常数 Constants of Dispersion Formula	
A0	2.4681590
A1	$-8.7509308 \times 10^{-3}$
A2	1.4283200×10^{-2}
A3	3.3301479×10^{-4}
A4	$-1.3093240 \times 10^{-5}$
A5	9.1735223×10^{-7}

dn/dTの分散常数 Constants of Dispersion dn/dT abs.	
D0	-3.87×10^{-6}
D1	1.28×10^{-8}
D2	-1.16×10^{-10}
E0	5.43×10^{-7}
E1	5.44×10^{-10}
$\lambda_{TK} (\mu m)$	0.179

部分分散および部分分散比 Partial Dispersions and Relative Partial Dispersions			
nC-nt	nC-nA'	nd-nC	ne-nC
0.00820	0.00352	0.00311	0.00556
θ C,t	θ C,A'	θ d,C	θ e,C
0.798	0.343	0.303	0.541
ng-nd	ng-nF	nh-ng	ni-ng
0.01278	0.00562	0.00468	0.01267
θ g,d	θ g,F(Δ)	θ h,g	θ i,g
1.244	0.547 (-0.0015)	0.456	1.234
nC'-nt	ne-nC'	nF'-ne	ni-nF'
0.00869	0.00507	0.00530	0.01770
θ 'C',t	θ 'e,C'	θ 'F',e	θ 'i,F'
0.838	0.489	0.511	1.707

機械的性質 Mechanical Properties	熱的性質 Thermal Properties
ヌープ硬さ Hk Knoop Hardness 542 (5)	転移点 Tg (°C) Transformation Point 473
ビッカース硬さ Hv Vickers Hardness 510	屈伏点 At (°C) Yielding Point 529
摩耗度 Ha Abrasion 170	線膨張係数 α ($\times 10^{-7} \text{°C}^{-1}$) Thermal Expansion
ヤング率 E ($\times 10^8 \text{N} \cdot \text{m}^{-2}$) Young's Modulus 859	(-30~+70°C) 90 (+100~+300°C) 112
剛性率 G ($\times 10^8 \text{N} \cdot \text{m}^{-2}$) Modulus of Rigidity 339	熱伝導率 λ ($\text{W} \cdot \text{m}^{-1} \cdot \text{K}^{-1}$) Thermal Conductivity 0.874
ポアソン比 σ Poisson Ratio 0.266	比熱 Cp ($\text{J} \cdot \text{kg}^{-1} \cdot \text{K}^{-1}$) Specific Heat 674
化学的性質 Chemical Properties	その他 Other Properties
耐水性(粉末法) RW Water Resistance 1	泡 B Bubbles
耐酸性(粉末法) RA Acid Resistance 3	着色度 C Coloration 34/31
耐久性(表面法) DW Chemical Durability 2	比重 S.g Specific Gravity 3.06
備考 Remarks	生産頻度 PF Production frequency

内部透過率 τ Internal Transmittance		
λ (nm)	3mm	10mm
270		
280		
290	0.123	
300	0.304	0.019
310	0.573	0.157
320	0.778	0.435
330	0.892	0.686
340	0.948	0.838
350	0.973	0.916
360	0.986	0.956
370	0.992	0.976
380	0.994	0.983
390	0.995	0.986
400	0.996	0.990
420	0.997	0.991
440	0.997	0.992
460	0.997	0.993
480	0.998	0.994
500	0.998	0.995
550	0.999	0.996
600	0.999	0.996
650	0.999	0.996
700	0.999	0.997
800	0.999	0.999
1060	0.999	0.998
1500	0.999	0.998
2000	0.991	0.971

屈折率の温度係数 Temperature Coefficients of Refractive Index						
	(dn/dT)rel. ($\times 10^{-6} \text{°C}^{-1}$)			(dn/dT)abs. ($\times 10^{-6} \text{°C}^{-1}$)		
(°C)	1548.1	d	g	1548.1	d	g
-40/-20	-0.6	0.0	0.8	-2.7	-2.1	-1.4
0/+20	-0.3	0.4	1.2	-1.8	-1.2	-0.4
+40/+60	-0.3	0.5	1.4	-1.5	-0.8	0.1

589612 K-SKLD5	nd	1.58913	ν d	61.2	nF-nC	0.00962
	ne	1.59143	ν e	61.0	nF'-nC'	0.00969

屈折率 Refractive Indices		
n1548	1548.1	1.57030
n1309	1308.5	1.57362
nt	1014.0	1.57790
nA'	768.2	1.58275
nr	706.5	1.58448
nC	656.3	1.58618
nC'	643.9	1.58665
nD	589.3	1.58905
nd	587.6	1.58913
ne	546.1	1.59143
nF	486.1	1.59580
nF'	480.0	1.59634
ng	435.8	1.60096
nh	404.7	1.60522
ni	365.0	1.61246

分散式の常数 Constants of Dispersion Formula	
A0	2.4888200
A1	$-1.1930015 \times 10^{-2}$
A2	1.3346868×10^{-2}
A3	2.6034059×10^{-4}
A4	$-1.0772061 \times 10^{-5}$
A5	7.9117231×10^{-7}

dn/dTの分散常数 Constants of Dispersion dn/dT abs.	
D0	3.98×10^{-6}
D1	1.39×10^{-8}
D2	-1.21×10^{-10}
E0	4.51×10^{-7}
E1	4.91×10^{-10}
$\lambda_{TK} (\mu m)$	0.177

部分分散および部分分散比 Partial Dispersions and Relative Partial Dispersions			
nC-nt	nC-nA'	nd-nC	ne-nC
0.00828	0.00343	0.00295	0.00525
$\theta_{C,t}$	$\theta_{C,A'}$	$\theta_{d,C}$	$\theta_{e,C}$
0.861	0.357	0.307	0.546
ng-nd	ng-nF	nh-ng	ni-ng
0.01183	0.00516	0.00426	0.01150
$\theta_{g,d}$	$\theta_{g,F(\Delta)}$	$\theta_{h,g}$	$\theta_{i,g}$
1.230	0.536 (-0.0052)	0.443	1.195
nC'-nt	ne-nC'	nF'-ne	ni-nF'
0.00875	0.00478	0.00491	0.01612
$\theta'_{C',t}$	$\theta'_{e,C'}$	$\theta'_{F',e}$	$\theta'_{i,F'}$
0.903	0.493	0.507	1.664

機械的性質 Mechanical Properties	熱的性質 Thermal Properties
ヌープ硬さ Hk Knoop Hardness 617 (6)	転移点 Tg (°C) Transformation Point 521
ビッカース硬さ Hv Vickers Hardness 604	屈伏点 At (°C) Yielding Point 560
摩耗度 Ha Abrasion 93	線膨張係数 $\alpha (\times 10^{-7} \text{°C}^{-1})$ Thermal Expansion
ヤング率 E ($\times 10^8 \text{N} \cdot \text{m}^{-2}$) Young's Modulus 995	(-30~+70°C) 58 (+100~+300°C) 82
剛性率 G ($\times 10^8 \text{N} \cdot \text{m}^{-2}$) Modulus of Rigidity 395	熱伝導率 $\lambda (\text{W} \cdot \text{m}^{-1} \cdot \text{K}^{-1})$ Thermal Conductivity 1.120
ポアソン比 σ Poisson Ratio 0.260	比熱 Cp ($\text{J} \cdot \text{kg}^{-1} \cdot \text{K}^{-1}$) Specific Heat 846
化学的性質 Chemical Properties	その他 Other Properties
耐水性(粉末法) RW Water Resistance 2	泡 B Bubbles
耐酸性(粉末法) RA Acid Resistance 4	着色度 C Coloration 36/30
耐久性(表面法) DW Chemical Durability 3	比重 S.g Specific Gravity 2.67
備考 Remarks	生産頻度 PF Production frequency C

内部透過率 τ Internal Transmittance		
$\lambda(\text{nm})$	3mm	10mm
270	0.093	
280	0.133	
290	0.235	
300	0.385	0.042
310	0.558	0.143
320	0.714	0.325
330	0.830	0.537
340	0.904	0.714
350	0.947	0.835
360	0.972	0.911
370	0.985	0.950
380	0.991	0.971
390	0.994	0.982
400	0.996	0.988
420	0.997	0.992
440	0.997	0.993
460	0.998	0.994
480	0.998	0.996
500	0.999	0.997
550	0.999	0.997
600	0.998	0.996
650	0.998	0.996
700	0.998	0.996
800	0.998	0.995
1060	0.998	0.995
1500	0.997	0.993
2000	0.992	0.974

屈折率の温度係数 Temperature Coefficients of Refractive Index						
	(dn/dT)rel. ($\times 10^{-6} \text{°C}^{-1}$)			(dn/dT)abs. ($\times 10^{-6} \text{°C}^{-1}$)		
(°C)	1548.1	d	g	1548.1	d	g
-40/-20	3.0	3.6	4.3	0.9	1.4	2.1
0/+20	3.3	4.0	4.8	1.8	2.4	3.1
+40/+60	3.4	4.1	4.9	2.2	2.9	3.7

591607 K-SKLD100	nd	1.59110	ν d	60.7	nF-nC	0.00974
	ne	1.59343	ν e	60.5	nF'-nC'	0.00981

屈折率 Refractive Indices		
n1548	1548.1	1.57225
n1309	1308.5	1.57554
nt	1014.0	1.57980
nA'	768.2	1.58467
nr	706.5	1.58641
nC	656.3	1.58812
nC'	643.9	1.58860
nD	589.3	1.59102
nd	587.6	1.59110
ne	546.1	1.59343
nF	486.1	1.59786
nF'	480.0	1.59841
ng	435.8	1.60310
nh	404.7	1.60744
ni	365.0	1.61480

分散式の常数 Constants of Dispersion Formula	
A0	2.4944050
A1	$-1.1746954 \times 10^{-2}$
A2	1.3616484×10^{-2}
A3	2.1617560×10^{-4}
A4	2.8081583×10^{-9}
A5	1.1416106×10^{-7}

dn/dTの分散常数 Constants of Dispersion dn/dT abs.	
D0	4.85×10^{-6}
D1	1.02×10^{-8}
D2	-1.23×10^{-10}
E0	4.33×10^{-7}
E1	8.06×10^{-10}
$\lambda_{TK} (\mu m)$	0.176

部分分散および部分分散比 Partial Dispersions and Relative Partial Dispersions			
nC-nt	nC-nA'	nd-nC	ne-nC
0.00832	0.00345	0.00298	0.00531
$\theta_{C,t}$	$\theta_{C,A'}$	$\theta_{d,C}$	$\theta_{e,C}$
0.854	0.354	0.306	0.545
ng-nd	ng-nF	nh-ng	ni-ng
0.01200	0.00524	0.00434	0.01170
$\theta_{g,d}$	$\theta_{g,F(\Delta)}$	$\theta_{h,g}$	$\theta_{i,g}$
1.232	0.538 (-0.0041)	0.446	1.201
nC'-nt	ne-nC'	nF'-ne	ni-nF'
0.00880	0.00483	0.00498	0.01639
$\theta_{C',t}$	$\theta_{e,C'}$	$\theta_{F',e}$	$\theta_{i,F'}$
0.897	0.492	0.508	1.671

機械的性質 Mechanical Properties	熱的性質 Thermal Properties
ヌープ硬さ Hk Knoop Hardness 669 (7)	転移点 Tg (°C) Transformation Point 520
ビッカース硬さ Hv Vickers Hardness 572	屈伏点 At (°C) Yielding Point 560
摩耗度 Ha Abrasion 100	線膨張係数 $\alpha (\times 10^{-7} \text{°C}^{-1})$ Thermal Expansion
ヤング率 E ($\times 10^8 \text{N} \cdot \text{m}^{-2}$) Young's Modulus 1032	(-30~+70°C) 61 (+100~+300°C) 85
剛性率 G ($\times 10^8 \text{N} \cdot \text{m}^{-2}$) Modulus of Rigidity 409	熱伝導率 $\lambda (\text{W} \cdot \text{m}^{-1} \cdot \text{K}^{-1})$ Thermal Conductivity 1.150
ポアソン比 σ Poisson Ratio 0.261	比熱 Cp ($\text{J} \cdot \text{kg}^{-1} \cdot \text{K}^{-1}$) Specific Heat 845
化学的性質 Chemical Properties	その他 Other Properties
耐水性(粉末法) RW Water Resistance 2	泡 B Bubbles
耐酸性(粉末法) RA Acid Resistance 3	着色度 C Coloration 36/30
耐久性(表面法) DW Chemical Durability 3	比重 S.g Specific Gravity 2.69
備考 Remarks	生産頻度 PF Production frequency

内部透過率 τ Internal Transmittance		
$\lambda(\text{nm})$	3mm	10mm
270		
280	0.099	
290	0.212	
300	0.357	0.032
310	0.542	0.130
320	0.699	0.304
330	0.822	0.521
340	0.904	0.713
350	0.950	0.842
360	0.973	0.914
370	0.986	0.955
380	0.992	0.974
390	0.995	0.982
400	0.996	0.989
420	0.997	0.991
440	0.997	0.993
460	0.998	0.996
480	0.999	0.997
500	0.999	0.998
550	0.999	0.998
600	0.998	0.996
650	0.999	0.996
700	0.999	0.997
800	0.999	0.997
1060	0.999	0.996
1500	0.998	0.995
2000	0.994	0.981

屈折率の温度係数 Temperature Coefficients of Refractive Index						
	(dn/dT)rel. ($\times 10^{-6} \text{°C}^{-1}$)			(dn/dT)abs. ($\times 10^{-6} \text{°C}^{-1}$)		
(°C)	1548.1	d	g	1548.1	d	g
-40/-20	3.5	4.1	4.7	1.4	1.9	2.5
0/+20	3.8	4.5	5.2	2.2	2.9	3.5
+40/+60	3.7	4.4	5.2	2.5	3.2	4.0

587598 K-SKLD120	nd	1.58680	ν d	59.8	nF-nC	0.00982
	ne	1.58914	ν e	59.5	nF'-nC'	0.00990

屈折率 Refractive Indices		
n1548	1548.1	1.56791
n1309	1308.5	1.57120
nt	1014.0	1.57546
nA'	768.2	1.58032
nr	706.5	1.58207
nC	656.3	1.58379
nC'	643.9	1.58427
nD	589.3	1.58671
nd	587.6	1.58680
ne	546.1	1.58914
nF	486.1	1.59361
nF'	480.0	1.59417
ng	435.8	1.59890
nh	404.7	1.60326
ni	365.0	1.61060

分散式の常数 Constants of Dispersion Formula	
A0	2.4809256
A1	$-1.1763845 \times 10^{-2}$
A2	1.3309488×10^{-2}
A3	3.2545605×10^{-4}
A4	$-9.9643058 \times 10^{-6}$
A5	2.0790854×10^{-7}

dn/dTの分散常数 Constants of Dispersion dn/dT abs.	
D0	4.57×10^{-6}
D1	1.39×10^{-8}
D2	-1.08×10^{-10}
E0	5.35×10^{-7}
E1	5.99×10^{-10}
$\lambda_{TK} (\mu m)$	0.138

部分分散および部分分散比 Partial Dispersions and Relative Partial Dispersions			
nC-nt	nC-nA'	nd-nC	ne-nC
0.00833	0.00347	0.00301	0.00535
$\theta_{C,t}$	$\theta_{C,A'}$	$\theta_{d,C}$	$\theta_{e,C}$
0.848	0.353	0.307	0.545
ng-nd	ng-nF	nh-ng	ni-ng
0.01210	0.00529	0.00436	0.01170
$\theta_{g,d}$	$\theta_{g,F(\Delta)}$	$\theta_{h,g}$	$\theta_{i,g}$
1.232	0.539 (-0.0046)	0.444	1.191
nC'-nt	ne-nC'	nF'-ne	ni-nF'
0.00881	0.00487	0.00503	0.01643
$\theta_{C',t}$	$\theta_{e,C'}$	$\theta_{F',e}$	$\theta_{i,F'}$
0.890	0.492	0.508	1.660

機械的性質 Mechanical Properties	熱的性質 Thermal Properties
ヌープ硬さ Hk Knoop Hardness 632 (6)	転移点 Tg (°C) Transformation Point 512
ビッカース硬さ Hv Vickers Hardness 590	屈伏点 At (°C) Yielding Point 548
摩耗度 Ha Abrasion 100	線膨張係数 $\alpha (\times 10^{-7} \text{°C}^{-1})$ Thermal Expansion
ヤング率 E ($\times 10^8 \text{N} \cdot \text{m}^{-2}$) Young's Modulus 993	(-30~+70°C) 64 (+100~+300°C) 85
剛性率 G ($\times 10^8 \text{N} \cdot \text{m}^{-2}$) Modulus of Rigidity 393	熱伝導率 $\lambda (\text{W} \cdot \text{m}^{-1} \cdot \text{K}^{-1})$ Thermal Conductivity 1.140
ポアソン比 σ Poisson Ratio 0.262	比熱 Cp ($\text{J} \cdot \text{kg}^{-1} \cdot \text{K}^{-1}$) Specific Heat 862
化学的性質 Chemical Properties	その他 Other Properties
耐水性(粉末法) RW Water Resistance 2	泡 B Bubbles
耐酸性(粉末法) RA Acid Resistance 2	着色度 C Coloration 35/30
耐久性(表面法) DW Chemical Durability 1	比重 S.g Specific Gravity 2.64
備考 Remarks	生産頻度 PF Production frequency

内部透過率 τ Internal Transmittance		
$\lambda(\text{nm})$	3mm	10mm
270	0.127	
280	0.211	
290	0.335	0.026
300	0.490	0.092
310	0.649	0.236
320	0.781	0.439
330	0.873	0.637
340	0.931	0.790
350	0.964	0.887
360	0.981	0.939
370	0.990	0.967
380	0.994	0.980
390	0.996	0.987
400	0.997	0.991
420	0.998	0.993
440	0.998	0.994
460	0.998	0.995
480	0.999	0.996
500	0.999	0.997
550	0.999	0.998
600	0.999	0.997
650	0.999	0.997
700	0.999	0.997
800	0.999	0.997
1060	0.999	0.997
1500	0.998	0.995
2000	0.992	0.975

屈折率の温度係数 Temperature Coefficients of Refractive Index						
	(dn/dT)rel. ($\times 10^{-6} \text{°C}^{-1}$)			(dn/dT)abs. ($\times 10^{-6} \text{°C}^{-1}$)		
(°C)	1548.1	d	g	1548.1	d	g
-40/-20	3.3	4.0	4.7	1.2	1.8	2.5
0/+20	3.6	4.4	5.2	2.1	2.8	3.6
+40/+60	3.7	4.5	5.4	2.5	3.3	4.1

587590 K-SKLD200	nd	1.58660	ν d	59.0	nF-nC	0.00994
	ne	1.58897	ν e	58.8	nF'-nC'	0.01002

屈折率 Refractive Indices		
n1548	1548.1	1.56793
n1309	1308.5	1.57107
nt	1014.0	1.57522
nA'	768.2	1.58007
nr	706.5	1.58183
nC	656.3	1.58357
nC'	643.9	1.58405
nD	589.3	1.58651
nd	587.6	1.58660
ne	546.1	1.58897
nF	486.1	1.59351
nF'	480.0	1.59407
ng	435.8	1.59889
nh	404.7	1.60335
ni	365.0	1.61093

分散式の常数 Constants of Dispersion Formula	
A0	2.4786815
A1	$-1.0928711 \times 10^{-2}$
A2	1.4104052×10^{-2}
A3	1.5365594×10^{-4}
A4	1.1942960×10^{-5}
A5	$-5.3372519 \times 10^{-7}$

dn/dTの分散常数 Constants of Dispersion dn/dT abs.	
D0	5.75×10^{-6}
D1	1.47×10^{-8}
D2	-2.92×10^{-11}
E0	5.60×10^{-7}
E1	7.11×10^{-10}
$\lambda_{TK} (\mu m)$	0.138

部分分散および部分分散比 Partial Dispersions and Relative Partial Dispersions			
nC-nt	nC-nA'	nd-nC	ne-nC
0.00835	0.00350	0.00303	0.00540
$\theta_{C,t}$	$\theta_{C,A'}$	$\theta_{d,C}$	$\theta_{e,C}$
0.840	0.352	0.305	0.543
ng-nd	ng-nF	nh-ng	ni-ng
0.01229	0.00538	0.00446	0.01204
$\theta_{g,d}$	$\theta_{g,F(\Delta)}$	$\theta_{h,g}$	$\theta_{i,g}$
1.236	0.541 (-0.0039)	0.449	1.211
nC'-nt	ne-nC'	nF'-ne	ni-nF'
0.00883	0.00492	0.00510	0.01686
$\theta_{C',t}$	$\theta_{e,C'}$	$\theta_{F',e}$	$\theta_{i,F'}$
0.881	0.491	0.509	1.683

機械的性質 Mechanical Properties	熱的性質 Thermal Properties
ヌープ硬さ Hk Knoop Hardness 599 (6)	転移点 Tg (°C) Transformation Point 507
ビッカース硬さ Hv Vickers Hardness 558	屈伏点 At (°C) Yielding Point 548
摩耗度 Ha Abrasion 90	線膨張係数 $\alpha (\times 10^{-7} \text{°C}^{-1})$ Thermal Expansion 74
ヤング率 E ($\times 10^8 \text{N} \cdot \text{m}^{-2}$) Young's Modulus 994	(-30~+70°C) 74 (+100~+300°C) 88
剛性率 G ($\times 10^8 \text{N} \cdot \text{m}^{-2}$) Modulus of Rigidity 395	熱伝導率 $\lambda (\text{W} \cdot \text{m}^{-1} \cdot \text{K}^{-1})$ Thermal Conductivity 1.160
ポアソン比 σ Poisson Ratio 0.258	比熱 Cp ($\text{J} \cdot \text{kg}^{-1} \cdot \text{K}^{-1}$) Specific Heat 841
化学的性質 Chemical Properties	その他 Other Properties
耐水性(粉末法) RW Water Resistance 1	泡 B Bubbles
耐酸性(粉末法) RA Acid Resistance 1	着色度 C Coloration 35/30
耐久性(表面法) DW Chemical Durability 1	比重 S.g Specific Gravity 2.70
備考 Remarks	生産頻度 PF Production frequency A

内部透過率 τ Internal Transmittance		
$\lambda(\text{nm})$	3mm	10mm
270	0.070	
280	0.161	
290	0.285	0.015
300	0.453	0.071
310	0.631	0.215
320	0.778	0.436
330	0.876	0.642
340	0.934	0.795
350	0.967	0.893
360	0.983	0.945
370	0.991	0.970
380	0.995	0.984
390	0.997	0.990
400	0.998	0.995
420	0.998	0.995
440	0.998	0.995
460	0.999	0.997
480	0.999	0.997
500	0.999	0.999
550	0.999	0.999
600	0.999	0.998
650	0.999	0.998
700	0.999	0.998
800	0.999	0.997
1060	0.999	0.997
1500	0.998	0.996
2000	0.993	0.980

屈折率の温度係数 Temperature Coefficients of Refractive Index						
	(dn/dT)rel. ($\times 10^{-6} \text{°C}^{-1}$)			(dn/dT)abs. ($\times 10^{-6} \text{°C}^{-1}$)		
(°C)	1548.1	d	g	1548.1	d	g
-40/-20	4.1	4.8	5.6	2.0	2.7	3.4
0/+20	4.2	5.0	5.8	2.6	3.4	4.2
+40/+60	4.4	5.2	6.2	3.2	4.0	4.9

564604 K-SKLD300	nd	1.56420	ν d	60.4	nF-nC	0.00934
	ne	1.56643	ν e	60.2	nF'-nC'	0.00941

屈折率 Refractive Indices		
n1548	1548.1	1.54626
n1309	1308.5	1.54936
nt	1014.0	1.55340
nA'	768.2	1.55803
nr	706.5	1.55970
nC	656.3	1.56134
nC'	643.9	1.56180
nD	589.3	1.56412
nd	587.6	1.56420
ne	546.1	1.56643
nF	486.1	1.57068
nF'	480.0	1.57121
ng	435.8	1.57571
nh	404.7	1.57987
ni	365.0	1.58694

分散式の常数 Constants of Dispersion Formula	
A0	2.4115553
A1	$-1.0853848 \times 10^{-2}$
A2	1.2782158×10^{-2}
A3	2.4099617×10^{-4}
A4	$-6.9046162 \times 10^{-6}$
A5	5.2824846×10^{-7}

dn/dTの分散常数 Constants of Dispersion dn/dT abs.	
D0	7.82×10^{-6}
D1	1.14×10^{-8}
D2	-7.72×10^{-11}
E0	4.72×10^{-7}
E1	8.91×10^{-10}
$\lambda_{TK} (\mu m)$	0.181

部分分散および部分分散比 Partial Dispersions and Relative Partial Dispersions			
nC-nt	nC-nA'	nd-nC	ne-nC
0.00794	0.00331	0.00286	0.00509
$\theta_{C,t}$	$\theta_{C,A'}$	$\theta_{d,C}$	$\theta_{e,C}$
0.850	0.354	0.306	0.545
ng-nd	ng-nF	nh-ng	ni-ng
0.01151	0.00503	0.00416	0.01123
$\theta_{g,d}$	$\theta_{g,F(\Delta)}$	$\theta_{h,g}$	$\theta_{i,g}$
1.232	0.539 (-0.0036)	0.445	1.202
nC'-nt	ne-nC'	nF'-ne	ni-nF'
0.00840	0.00463	0.00478	0.01573
$\theta_{C',t}$	$\theta_{e,C'}$	$\theta_{F',e}$	$\theta_{i,F'}$
0.893	0.492	0.508	1.672

機械的性質 Mechanical Properties	熱的性質 Thermal Properties
ヌープ硬さ Hk Knoop Hardness 611 (6)	転移点 Tg (°C) Transformation Point 509
ビッカース硬さ Hv Vickers Hardness 580	屈伏点 At (°C) Yielding Point 551
摩耗度 Ha Abrasion 70	線膨張係数 $\alpha (\times 10^{-7} \text{°C}^{-1})$ Thermal Expansion
ヤング率 E ($\times 10^8 \text{N} \cdot \text{m}^{-2}$) Young's Modulus 973	(-30~+70°C) 58 (+100~+300°C) 72
剛性率 G ($\times 10^8 \text{N} \cdot \text{m}^{-2}$) Modulus of Rigidity 388	熱伝導率 $\lambda (\text{W} \cdot \text{m}^{-1} \cdot \text{K}^{-1})$ Thermal Conductivity 1.180
ポアソン比 σ Poisson Ratio 0.252	比熱 Cp ($\text{J} \cdot \text{kg}^{-1} \cdot \text{K}^{-1}$) Specific Heat 836
化学的性質 Chemical Properties	その他 Other Properties
耐水性(粉末法) RW Water Resistance 1	泡 B Bubbles
耐酸性(粉末法) RA Acid Resistance 1	着色度 C Coloration 35/30
耐久性(表面法) DW Chemical Durability 1	比重 S.g Specific Gravity 2.60
備考 Remarks	生産頻度 PF Production frequency

内部透過率 τ Internal Transmittance		
$\lambda(\text{nm})$	3mm	10mm
270		
280		
290	0.131	
300	0.322	0.023
310	0.558	0.143
320	0.747	0.378
330	0.866	0.618
340	0.932	0.790
350	0.966	0.891
360	0.983	0.945
370	0.991	0.971
380	0.994	0.982
390	0.996	0.989
400	0.997	0.992
420	0.998	0.994
440	0.998	0.994
460	0.998	0.995
480	0.999	0.997
500	0.999	0.998
550	0.999	0.998
600	0.999	0.997
650	0.999	0.997
700	0.999	0.997
800	0.999	0.997
1060	0.998	0.996
1500	0.998	0.993
2000	0.993	0.977

屈折率の温度係数 Temperature Coefficients of Refractive Index						
	(dn/dT)rel. ($\times 10^{-6} \text{°C}^{-1}$)			(dn/dT)abs. ($\times 10^{-6} \text{°C}^{-1}$)		
(°C)	1548.1	d	g	1548.1	d	g
-40/-20	4.9	5.5	6.2	2.8	3.4	4.0
0/+20	5.0	5.7	6.5	3.5	4.2	4.9
+40/+60	5.0	5.8	6.7	3.8	4.6	5.5

772500 K-LaFK50	nd	1.77200	ν d	50.0	nF-nC	0.01544
	ne	1.77568	ν e	49.7	nF'-nC'	0.01560

屈折率 Refractive Indices		
n1548	1548.1	1.74682
n1309	1308.5	1.75035
nt	1014.0	1.75545
nA'	768.2	1.76216
nr	706.5	1.76475
nC	656.3	1.76736
nC'	643.9	1.76809
nD	589.3	1.77186
nd	587.6	1.77200
ne	546.1	1.77568
nF	486.1	1.78280
nF'	480.0	1.78369
ng	435.8	1.79137
nh	404.7	1.79855
ni	365.0	1.81091

分散式の常数 Constants of Dispersion Formula	
A0	3.0701310
A1	$-1.2037535 \times 10^{-2}$
A2	2.3978866×10^{-2}
A3	5.6153238×10^{-4}
A4	$-1.0529871 \times 10^{-5}$
A5	1.1710915×10^{-6}

dn/dTの分散常数 Constants of Dispersion dn/dT abs.	
D0	-3.11×10^{-7}
D1	1.35×10^{-8}
D2	-2.34×10^{-10}
E0	5.76×10^{-7}
E1	8.89×10^{-10}
$\lambda_{TK} (\mu m)$	0.201

部分分散および部分分散比 Partial Dispersions and Relative Partial Dispersions			
nC-nt	nC-nA'	nd-nC	ne-nC
0.01191	0.00520	0.00464	0.00832
$\theta_{C,t}$	$\theta_{C,A'}$	$\theta_{d,C}$	$\theta_{e,C}$
0.771	0.337	0.301	0.539
ng-nd	ng-nF	nh-ng	ni-ng
0.01937	0.00857	0.00718	0.01954
$\theta_{g,d}$	$\theta_{g,F(\Delta)}$	$\theta_{h,g}$	$\theta_{i,g}$
1.255	0.555 (-0.0050)	0.465	1.266
nC'-nt	ne-nC'	nF'-ne	ni-nF'
0.01264	0.00759	0.00801	0.02722
$\theta_{C',t}$	$\theta_{e,C'}$	$\theta_{F',e}$	$\theta_{i,F'}$
0.810	0.487	0.513	1.745

機械的性質 Mechanical Properties	熱的性質 Thermal Properties
ヌープ硬さ Hk Knoop Hardness 646 (6)	転移点 Tg (°C) Transformation Point 560
ビッカース硬さ Hv Vickers Hardness 658	屈伏点 At (°C) Yielding Point 592
摩耗度 Ha Abrasion 105	線膨張係数 $\alpha (\times 10^{-7} \text{°C}^{-1})$ Thermal Expansion
ヤング率 E ($\times 10^8 \text{N} \cdot \text{m}^{-2}$) Young's Modulus 1133	(-30~+70°C) 73 (+100~+300°C) 90
剛性率 G ($\times 10^8 \text{N} \cdot \text{m}^{-2}$) Modulus of Rigidity 436	熱伝導率 $\lambda (\text{W} \cdot \text{m}^{-1} \cdot \text{K}^{-1})$ Thermal Conductivity 0.789
ポアソン比 σ Poisson Ratio 0.300	比熱 Cp ($\text{J} \cdot \text{kg}^{-1} \cdot \text{K}^{-1}$) Specific Heat 461
化学的性質 Chemical Properties	その他 Other Properties
耐水性(粉末法) RW Water Resistance 1	泡 B Bubbles
耐酸性(粉末法) RA Acid Resistance 3	着色度 C Coloration 37/29
耐久性(表面法) DW Chemical Durability 1	比重 S.g Specific Gravity 5.20
備考 Remarks	生産頻度 PF Production frequency B

内部透過率 τ Internal Transmittance		
$\lambda(\text{nm})$	3mm	10mm
270		
280	0.413	0.053
290	0.530	0.121
300	0.657	0.247
310	0.664	0.256
320	0.834	0.546
330	0.889	0.676
340	0.930	0.786
350	0.957	0.864
360	0.974	0.918
370	0.985	0.952
380	0.990	0.970
390	0.994	0.981
400	0.996	0.989
420	0.998	0.993
440	0.998	0.995
460	0.998	0.995
480	0.999	0.998
500	0.999	0.998
550	0.999	0.998
600	0.999	0.998
650	0.999	0.997
700	0.999	0.998
800	0.998	0.995
1060	0.999	0.999
1500	0.999	0.998
2000	0.991	0.972

屈折率の温度係数 Temperature Coefficients of Refractive Index						
	(dn/dT)rel. ($\times 10^{-6} \text{°C}^{-1}$)			(dn/dT)abs. ($\times 10^{-6} \text{°C}^{-1}$)		
(°C)	1548.1	d	g	1548.1	d	g
-40/-20	0.5	1.3	2.4	-1.9	-1.1	-0.1
0/+20	1.5	2.5	3.7	-0.2	0.7	1.9
+40/+60	1.4	2.5	3.9	0.1	1.2	2.5

766498 K-LaFK50T	nd	1.76600	ν d	49.8	nF-nC	0.01538
	ne	1.76966	ν e	49.5	nF'-nC'	0.01554

屈折率 Refractive Indices		
n1548	1548.1	1.74061
n1309	1308.5	1.74425
nt	1014.0	1.74945
nA'	768.2	1.75620
nr	706.5	1.75878
nC	656.3	1.76138
nC'	643.9	1.76211
nD	589.3	1.76586
nd	587.6	1.76600
ne	546.1	1.76966
nF	486.1	1.77676
nF'	480.0	1.77765
ng	435.8	1.78529
nh	404.7	1.79241
ni	365.0	1.80458

分散式の常数 Constants of Dispersion Formula	
A0	3.0499512
A1	$-1.2617622 \times 10^{-2}$
A2	2.3790052×10^{-2}
A3	4.7378243×10^{-4}
A4	1.3794282×10^{-5}
A5	$-8.9478674 \times 10^{-7}$

dn/dTの分散常数 Constants of Dispersion dn/dT abs.	
D0	2.67×10^{-6}
D1	1.57×10^{-8}
D2	-3.04×10^{-10}
E0	6.28×10^{-7}
E1	3.17×10^{-10}
$\lambda_{TK} (\mu m)$	0.192

部分分散および部分分散比 Partial Dispersions and Relative Partial Dispersions			
nC-nt	nC-nA'	nd-nC	ne-nC
0.01193	0.00518	0.00462	0.00828
$\theta_{C,t}$	$\theta_{C,A'}$	$\theta_{d,C}$	$\theta_{e,C}$
0.776	0.337	0.300	0.538
ng-nd	ng-nF	nh-ng	ni-ng
0.01929	0.00853	0.00712	0.01929
$\theta_{g,d}$	$\theta_{g,F(\Delta)}$	$\theta_{h,g}$	$\theta_{i,g}$
1.254	0.555 (-0.0080)	0.463	1.254
nC'-nt	ne-nC'	nF'-ne	ni-nF'
0.01266	0.00755	0.00799	0.02693
$\theta_{C',t}$	$\theta_{e,C'}$	$\theta_{F',e}$	$\theta_{i,F'}$
0.815	0.486	0.514	1.733

機械的性質 Mechanical Properties	熱的性質 Thermal Properties
ヌープ硬さ Hk Knoop Hardness 630 (6)	転移点 Tg (°C) Transformation Point 576
ビッカース硬さ Hv Vickers Hardness 630	屈伏点 At (°C) Yielding Point 612
摩耗度 Ha Abrasion 80	線膨張係数 $\alpha (\times 10^{-7} \text{°C}^{-1})$ Thermal Expansion
ヤング率 E ($\times 10^8 \text{N} \cdot \text{m}^{-2}$) Young's Modulus 1117	(-30~+70°C) 63 (+100~+300°C) 81
剛性率 G ($\times 10^8 \text{N} \cdot \text{m}^{-2}$) Modulus of Rigidity 431	熱伝導率 $\lambda (\text{W} \cdot \text{m}^{-1} \cdot \text{K}^{-1})$ Thermal Conductivity 0.812
ポアソン比 σ Poisson Ratio 0.297	比熱 Cp ($\text{J} \cdot \text{kg}^{-1} \cdot \text{K}^{-1}$) Specific Heat 496
化学的性質 Chemical Properties	その他 Other Properties
耐水性(粉末法) RW Water Resistance 1	泡 B Bubbles
耐酸性(粉末法) RA Acid Resistance 3	着色度 C Coloration 37/30
耐久性(表面法) DW Chemical Durability 1	比重 S.g Specific Gravity 4.75
備考 Remarks	生産頻度 PF Production frequency C

内部透過率 τ Internal Transmittance		
$\lambda(\text{nm})$	3mm	10mm
270		
280		
290	0.152	
300	0.358	0.032
310	0.533	0.123
320	0.722	0.338
330	0.819	0.514
340	0.886	0.668
350	0.931	0.788
360	0.958	0.868
370	0.975	0.920
380	0.985	0.951
390	0.990	0.968
400	0.993	0.977
420	0.996	0.987
440	0.997	0.990
460	0.998	0.993
480	0.998	0.996
500	0.999	0.997
550	0.999	0.998
600	0.999	0.998
650	0.999	0.998
700	0.999	0.998
800	0.999	0.998
1060	0.999	0.998
1500	0.999	0.998
2000	0.992	0.974

屈折率の温度係数 Temperature Coefficients of Refractive Index						
	(dn/dT)rel. ($\times 10^{-6} \text{°C}^{-1}$)			(dn/dT)abs. ($\times 10^{-6} \text{°C}^{-1}$)		
(°C)	1548.1	d	g	1548.1	d	g
-40/-20	1.8	2.9	4.1	-0.5	0.5	1.7
0/+20	3.2	4.3	5.7	1.5	2.6	3.9
+40/+60	3.1	4.3	5.7	1.8	2.9	4.3

694563 K-LaFK55	nd	1.69400	ν d	56.3	nF-nC	0.01233
	ne	1.69694	ν e	56.0	nF'-nC'	0.01244

屈折率 Refractive Indices		
n1548	1548.1	1.67165
n1309	1308.5	1.67528
nt	1014.0	1.68014
nA'	768.2	1.68597
nr	706.5	1.68812
nC	656.3	1.69024
nC'	643.9	1.69084
nD	589.3	1.69389
nd	587.6	1.69400
ne	546.1	1.69694
nF	486.1	1.70257
nF'	480.0	1.70328
ng	435.8	1.70930
nh	404.7	1.71489
ni	365.0	1.72447

分散式の常数 Constants of Dispersion Formula	
A0	2.8185206
A1	$-1.3230603 \times 10^{-2}$
A2	1.8037587×10^{-2}
A3	4.5589602×10^{-4}
A4	$-2.1316720 \times 10^{-5}$
A5	1.5724724×10^{-6}

dn/dTの分散常数 Constants of Dispersion dn/dT abs.	
D0	-2.43×10^{-6}
D1	1.08×10^{-8}
D2	-8.10×10^{-11}
E0	5.36×10^{-7}
E1	6.73×10^{-10}
$\lambda_{TK} (\mu m)$	0.111

部分分散および部分分散比 Partial Dispersions and Relative Partial Dispersions			
nC-nt	nC-nA'	nd-nC	ne-nC
0.01010	0.00427	0.00376	0.00670
$\theta_{C,t}$	$\theta_{C,A'}$	$\theta_{d,C}$	$\theta_{e,C}$
0.819	0.346	0.305	0.543
ng-nd	ng-nF	nh-ng	ni-ng
0.01530	0.00673	0.00559	0.01517
$\theta_{g,d}$	$\theta_{g,F(\Delta)}$	$\theta_{h,g}$	$\theta_{i,g}$
1.241	0.546 (-0.0035)	0.453	1.230
nC'-nt	ne-nC'	nF'-ne	ni-nF'
0.01070	0.00610	0.00634	0.02119
$\theta'_{C',t}$	$\theta'_{e,C'}$	$\theta'_{F',e}$	$\theta'_{i,F'}$
0.860	0.490	0.510	1.703

機械的性質 Mechanical Properties	熱的性質 Thermal Properties
ヌープ硬さ Hk Knoop Hardness 637 (6)	転移点 Tg (°C) Transformation Point 514
ビッカース硬さ Hv Vickers Hardness 681	屈伏点 At (°C) Yielding Point 556
摩耗度 Ha Abrasion 100	線膨張係数 $\alpha (\times 10^{-7} \text{°C}^{-1})$ Thermal Expansion 73
ヤング率 E ($\times 10^8 \text{N} \cdot \text{m}^{-2}$) Young's Modulus 1183	(-30~+70°C) 73 (+100~+300°C) 91
剛性率 G ($\times 10^8 \text{N} \cdot \text{m}^{-2}$) Modulus of Rigidity 461	熱伝導率 $\lambda (\text{W} \cdot \text{m}^{-1} \cdot \text{K}^{-1})$ Thermal Conductivity 0.848
ポアソン比 σ Poisson Ratio 0.284	比熱 Cp ($\text{J} \cdot \text{kg}^{-1} \cdot \text{K}^{-1}$) Specific Heat 552
化学的性質 Chemical Properties	その他 Other Properties
耐水性(粉末法) RW Water Resistance 1	泡 B Bubbles B
耐酸性(粉末法) RA Acid Resistance 4	着色度 C Coloration 37/29
耐久性(表面法) DW Chemical Durability 1	比重 S.g Specific Gravity 4.34
備考 Remarks	生産頻度 PF Production frequency C

内部透過率 τ Internal Transmittance		
$\lambda(\text{nm})$	3mm	10mm
270	0.363	0.034
280	0.424	0.058
290	0.517	0.111
300	0.602	0.185
310	0.646	0.234
320	0.800	0.476
330	0.871	0.633
340	0.923	0.766
350	0.956	0.861
360	0.975	0.920
370	0.986	0.955
380	0.992	0.975
390	0.995	0.985
400	0.997	0.990
420	0.998	0.993
440	0.998	0.995
460	0.999	0.997
480	0.999	0.998
500	0.999	0.998
550	0.999	0.998
600	0.999	0.997
650	0.999	0.997
700	0.999	0.998
800	0.999	0.998
1060	0.999	0.999
1500	0.999	0.999
2000	0.993	0.978

屈折率の温度係数 Temperature Coefficients of Refractive Index						
	(dn/dT)rel. ($\times 10^{-6} \text{°C}^{-1}$)			(dn/dT)abs. ($\times 10^{-6} \text{°C}^{-1}$)		
(°C)	1548.1	d	g	1548.1	d	g
-40/-20	0.1	0.8	1.5	-2.1	-1.5	-0.8
0/+20	0.3	1.1	1.9	-1.3	-0.6	0.2
+40/+60	0.3	1.2	2.0	-0.9	-0.1	0.7

696590 K-LaFK58	nd	1.69560	ν d	59.0	nF-nC	0.01178
	ne	1.69841	ν e	58.8	nF'-nC'	0.01188

屈折率 Refractive Indices		
n1548	1548.1	1.67418
n1309	1308.5	1.67767
nt	1014.0	1.68234
nA'	768.2	1.68793
nr	706.5	1.68998
nC	656.3	1.69202
nC'	643.9	1.69259
nD	589.3	1.69550
nd	587.6	1.69560
ne	546.1	1.69841
nF	486.1	1.70380
nF'	480.0	1.70447
ng	435.8	1.71020
nh	404.7	1.71551
ni	365.0	1.72456

分散式の常数 Constants of Dispersion Formula	
A0	2.8262526
A1	$-1.2785561 \times 10^{-2}$
A2	1.7234088×10^{-2}
A3	4.4361050×10^{-4}
A4	$-2.0762175 \times 10^{-5}$
A5	1.2592648×10^{-6}

dn/dTの分散常数 Constants of Dispersion dn/dT abs.	
D0	-4.73×10^{-6}
D1	9.33×10^{-9}
D2	-1.14×10^{-10}
E0	4.36×10^{-7}
E1	4.83×10^{-10}
$\lambda_{TK} (\mu m)$	0.169

部分分散および部分分散比 Partial Dispersions and Relative Partial Dispersions			
nC-nt	nC-nA'	nd-nC	ne-nC
0.00968	0.00409	0.00358	0.00639
$\theta_{C,t}$	$\theta_{C,A'}$	$\theta_{d,C}$	$\theta_{e,C}$
0.822	0.347	0.304	0.542
ng-nd	ng-nF	nh-ng	ni-ng
0.01460	0.00640	0.00531	0.01436
$\theta_{g,d}$	$\theta_{g,F(\Delta)}$	$\theta_{h,g}$	$\theta_{i,g}$
1.239	0.543 (-0.0019)	0.451	1.219
nC'-nt	ne-nC'	nF'-ne	ni-nF'
0.01025	0.00582	0.00606	0.02009
$\theta_{C',t}$	$\theta_{e,C'}$	$\theta_{F',e}$	$\theta_{i,F'}$
0.863	0.490	0.510	1.691

機械的性質 Mechanical Properties	熱的性質 Thermal Properties
ヌープ硬さ Hk Knoop Hardness 635 (6)	転移点 Tg (°C) Transformation Point 542
ビッカース硬さ Hv Vickers Hardness 613	屈伏点 At (°C) Yielding Point 577
摩耗度 Ha Abrasion 130	線膨張係数 $\alpha (\times 10^{-7} \text{°C}^{-1})$ Thermal Expansion
ヤング率 E ($\times 10^8 \text{N} \cdot \text{m}^{-2}$) Young's Modulus 1134	(-30~+70°C) 69 (+100~+300°C) 93
剛性率 G ($\times 10^8 \text{N} \cdot \text{m}^{-2}$) Modulus of Rigidity 438	熱伝導率 $\lambda (\text{W} \cdot \text{m}^{-1} \cdot \text{K}^{-1})$ Thermal Conductivity 0.806
ポアソン比 σ Poisson Ratio 0.293	比熱 Cp ($\text{J} \cdot \text{kg}^{-1} \cdot \text{K}^{-1}$) Specific Heat 515
化学的性質 Chemical Properties	その他 Other Properties
耐水性(粉末法) RW Water Resistance 1	泡 B Bubbles
耐酸性(粉末法) RA Acid Resistance 4	着色度 C Coloration 36/28
耐久性(表面法) DW Chemical Durability 1	比重 S.g Specific Gravity 4.56
備考 Remarks	生産頻度 PF Production frequency C

内部透過率 τ Internal Transmittance		
$\lambda(\text{nm})$	3mm	10mm
270	0.471	0.082
280	0.530	0.121
290	0.621	0.204
300	0.683	0.282
310	0.700	0.305
320	0.841	0.564
330	0.897	0.697
340	0.937	0.807
350	0.962	0.880
360	0.978	0.930
370	0.988	0.962
380	0.992	0.975
390	0.995	0.985
400	0.997	0.993
420	0.998	0.996
440	0.999	0.997
460	0.999	0.998
480	0.999	0.999
500	0.999	0.999
550	0.999	0.999
600	0.999	0.999
650	0.999	0.999
700	0.999	0.999
800	0.999	0.999
1060	0.999	0.999
1500	0.999	0.999
2000	0.994	0.980

屈折率の温度係数 Temperature Coefficients of Refractive Index						
	(dn/dT)rel. ($\times 10^{-6} \text{°C}^{-1}$)			(dn/dT)abs. ($\times 10^{-6} \text{°C}^{-1}$)		
(°C)	1548.1	d	g	1548.1	d	g
-40/-20	-1.2	-0.6	0.0	-3.4	-2.9	-2.3
0/+20	-0.9	-0.3	0.4	-2.6	-2.0	-1.3
+40/+60	-1.0	-0.4	0.4	-2.3	-1.7	-0.9

632638 K-LaFK60	nd	1.63246	ν d	63.8	nF-nC	0.00992
	ne	1.63483	ν e	63.5	nF'-nC'	0.01000

屈折率 Refractive Indices		
n1548	1548.1	1.61440
n1309	1308.5	1.61733
nt	1014.0	1.62126
nA'	768.2	1.62598
nr	706.5	1.62772
nC	656.3	1.62944
nC'	643.9	1.62992
nD	589.3	1.63237
nd	587.6	1.63246
ne	546.1	1.63483
nF	486.1	1.63936
nF'	480.0	1.63992
ng	435.8	1.64473
nh	404.7	1.64919
ni	365.0	1.65674

分散式の常数 Constants of Dispersion Formula	
A0	2.6248172
A1	$-1.0251149 \times 10^{-2}$
A2	1.4379300×10^{-2}
A3	2.4017461×10^{-4}
A4	$-1.0419010 \times 10^{-6}$
A5	1.0237991×10^{-7}

dn/dTの分散常数 Constants of Dispersion dn/dT abs.	
D0	-9.60×10^{-6}
D1	1.03×10^{-8}
D2	-7.48×10^{-11}
E0	3.87×10^{-7}
E1	1.56×10^{-10}
$\lambda_{TK} (\mu m)$	0.188

部分分散および部分分散比 Partial Dispersions and Relative Partial Dispersions			
nC-nt	nC-nA'	nd-nC	ne-nC
0.00818	0.00346	0.00302	0.00539
$\theta_{C,t}$	$\theta_{C,A'}$	$\theta_{d,C}$	$\theta_{e,C}$
0.825	0.349	0.304	0.543
ng-nd	ng-nF	nh-ng	ni-ng
0.01227	0.00537	0.00446	0.01201
$\theta_{g,d}$	$\theta_{g,F(\Delta)}$	$\theta_{h,g}$	$\theta_{i,g}$
1.237	0.541 (0.0041)	0.450	1.211
nC'-nt	ne-nC'	nF'-ne	ni-nF'
0.00866	0.00491	0.00509	0.01682
$\theta'_{C',t}$	$\theta'_{e,C'}$	$\theta'_{F',e}$	$\theta'_{i,F'}$
0.866	0.491	0.509	1.682

機械的性質 Mechanical Properties	熱的性質 Thermal Properties
ヌープ硬さ Hk Knoop Hardness 547 (5)	転移点 Tg (°C) Transformation Point 485
ビッカース硬さ Hv Vickers Hardness 570	屈伏点 At (°C) Yielding Point 528
摩耗度 Ha Abrasion 180	線膨張係数 $\alpha (\times 10^{-7} \text{°C}^{-1})$ Thermal Expansion 93
ヤング率 E ($\times 10^8 \text{N} \cdot \text{m}^{-2}$) Young's Modulus 997	(-30~+70°C) 93 (+100~+300°C) 114
剛性率 G ($\times 10^8 \text{N} \cdot \text{m}^{-2}$) Modulus of Rigidity 387	熱伝導率 $\lambda (\text{W} \cdot \text{m}^{-1} \cdot \text{K}^{-1})$ Thermal Conductivity 0.800
ポアソン比 σ Poisson Ratio 0.288	比熱 Cp ($\text{J} \cdot \text{kg}^{-1} \cdot \text{K}^{-1}$) Specific Heat 540
化学的性質 Chemical Properties	その他 Other Properties
耐水性(粉末法) RW Water Resistance 1	泡 B Bubbles B
耐酸性(粉末法) RA Acid Resistance 5	着色度 C Coloration 38/28
耐久性(表面法) DW Chemical Durability 1	比重 S.g Specific Gravity 4.27
備考 Remarks	生産頻度 PF Production frequency C

内部透過率 τ Internal Transmittance		
$\lambda(\text{nm})$	3mm	10mm
270	0.468	0.080
280	0.543	0.131
290	0.644	0.231
300	0.729	0.350
310	0.778	0.434
320	0.880	0.653
330	0.922	0.765
340	0.948	0.838
350	0.960	0.875
360	0.968	0.898
370	0.975	0.919
380	0.983	0.945
390	0.989	0.964
400	0.993	0.977
420	0.996	0.988
440	0.998	0.994
460	0.998	0.995
480	0.999	0.997
500	0.999	0.997
550	0.999	0.999
600	0.999	0.998
650	0.999	0.998
700	0.999	0.998
800	0.999	0.997
1060	0.999	0.999
1500	0.999	0.999
2000	0.996	0.986

屈折率の温度係数 Temperature Coefficients of Refractive Index						
	(dn/dT)rel. ($\times 10^{-6} \text{°C}^{-1}$)			(dn/dT)abs. ($\times 10^{-6} \text{°C}^{-1}$)		
(°C)	1548.1	d	g	1548.1	d	g
-40/-20	-3.3	-2.9	-2.3	-5.5	-5.1	-4.6
0/+20	-3.2	-2.7	-2.1	-4.8	-4.4	-3.8
+40/+60	-3.3	-2.8	-2.2	-4.5	-4.0	-3.4

639634 K-LaFK63	nd	1.63860	ν d	63.4	nF-nC	0.01007
	ne	1.64100	ν e	63.2	nF'-nC'	0.01015

屈折率 Refractive Indices		
n1548	1548.1	1.62021
n1309	1308.5	1.62319
nt	1014.0	1.62721
nA'	768.2	1.63202
nr	706.5	1.63378
nC	656.3	1.63553
nC'	643.9	1.63602
nD	589.3	1.63851
nd	587.6	1.63860
ne	546.1	1.64100
nF	486.1	1.64560
nF'	480.0	1.64617
ng	435.8	1.65106
nh	404.7	1.65559
ni	365.0	1.66327

分散式の常数 Constants of Dispersion Formula	
A0	2.6439316
A1	$-1.0471601 \times 10^{-2}$
A2	1.4890809×10^{-2}
A3	1.5162245×10^{-4}
A4	1.3530927×10^{-5}
A5	$-6.5983298 \times 10^{-7}$

dn/dTの分散常数 Constants of Dispersion dn/dT abs.	
D0	-1.02×10^{-5}
D1	8.45×10^{-9}
D2	-7.16×10^{-11}
E0	4.42×10^{-7}
E1	5.71×10^{-10}
$\lambda_{TK} (\mu m)$	0.158

部分分散および部分分散比 Partial Dispersions and Relative Partial Dispersions			
nC-nt	nC-nA'	nd-nC	ne-nC
0.00832	0.00351	0.00307	0.00547
$\theta_{C,t}$	$\theta_{C,A'}$	$\theta_{d,C}$	$\theta_{e,C}$
0.826	0.349	0.305	0.543
ng-nd	ng-nF	nh-ng	ni-ng
0.01246	0.00546	0.00453	0.01221
$\theta_{g,d}$	$\theta_{g,F(\Delta)}$	$\theta_{h,g}$	$\theta_{i,g}$
1.237	0.542 (0.0045)	0.450	1.213
nC'-nt	ne-nC'	nF'-ne	ni-nF'
0.00881	0.00498	0.00517	0.01710
$\theta'_{C',t}$	$\theta'_{e,C'}$	$\theta'_{F',e}$	$\theta'_{i,F'}$
0.868	0.491	0.509	1.685

機械的性質 Mechanical Properties	熱的性質 Thermal Properties
ヌープ硬さ Hk Knoop Hardness 503 (5)	転移点 Tg (°C) Transformation Point 486
ビッカース硬さ Hv Vickers Hardness 445	屈伏点 At (°C) Yielding Point 524
摩耗度 Ha Abrasion 210	線膨張係数 $\alpha (\times 10^{-7} \text{°C}^{-1})$ Thermal Expansion
ヤング率 E ($\times 10^8 \text{N} \cdot \text{m}^{-2}$) Young's Modulus 974	(-30~+70°C) 95 (+100~+300°C) 118
剛性率 G ($\times 10^8 \text{N} \cdot \text{m}^{-2}$) Modulus of Rigidity 376	熱伝導率 $\lambda (\text{W} \cdot \text{m}^{-1} \cdot \text{K}^{-1})$ Thermal Conductivity 0.761
ポアソン比 σ Poisson Ratio 0.295	比熱 Cp ($\text{J} \cdot \text{kg}^{-1} \cdot \text{K}^{-1}$) Specific Heat 532
化学的性質 Chemical Properties	その他 Other Properties
耐水性(粉末法) RW Water Resistance 1	泡 B Bubbles
耐酸性(粉末法) RA Acid Resistance 5	着色度 C Coloration 35/25
耐久性(表面法) DW Chemical Durability 1	比重 S.g Specific Gravity 4.36
備考 Remarks	生産頻度 PF Production frequency

内部透過率 τ Internal Transmittance		
$\lambda(\text{nm})$	3mm	10mm
270	0.518	0.112
280	0.581	0.164
290	0.681	0.279
300	0.746	0.377
310	0.772	0.422
320	0.885	0.666
330	0.929	0.785
340	0.959	0.872
350	0.977	0.926
360	0.987	0.959
370	0.993	0.979
380	0.996	0.987
390	0.997	0.990
400	0.997	0.991
420	0.998	0.993
440	0.998	0.996
460	0.999	0.997
480	0.999	0.997
500	0.999	0.998
550	0.999	0.998
600	0.999	0.998
650	0.999	0.998
700	0.999	0.997
800	0.999	0.997
1060	0.999	0.999
1500	0.999	0.998
2000	0.994	0.981

屈折率の温度係数 Temperature Coefficients of Refractive Index						
	(dn/dT)rel. ($\times 10^{-6} \text{°C}^{-1}$)			(dn/dT)abs. ($\times 10^{-6} \text{°C}^{-1}$)		
(°C)	1548.1	d	g	1548.1	d	g
-40/-20	-3.6	-3.1	-2.6	-5.7	-5.3	-4.8
0/+20	-3.5	-3.0	-2.4	-5.1	-4.7	-4.1
+40/+60	-3.6	-3.1	-2.4	-4.9	-4.3	-3.7

657623 K-LaFK65	nd	1.65670	ν d	62.3	nF-nC	0.01054
	ne	1.65922	ν e	62.0	nF'-nC'	0.01063

屈折率 Refractive Indices		
n1548	1548.1	1.63718
n1309	1308.5	1.64041
nt	1014.0	1.64471
nA'	768.2	1.64980
nr	706.5	1.65165
nC	656.3	1.65349
nC'	643.9	1.65400
nD	589.3	1.65661
nd	587.6	1.65670
ne	546.1	1.65922
nF	486.1	1.66403
nF'	480.0	1.66463
ng	435.8	1.66975
nh	404.7	1.67448
ni	365.0	1.68251

分散式の常数 Constants of Dispersion Formula	
A0	2.7016663
A1	$-1.1618909 \times 10^{-2}$
A2	1.5582285×10^{-2}
A3	1.9824944×10^{-4}
A4	1.0097927×10^{-5}
A5	$-5.2589483 \times 10^{-7}$

dn/dTの分散常数 Constants of Dispersion dn/dT abs.	
D0	-7.58×10^{-6}
D1	9.42×10^{-9}
D2	-3.47×10^{-11}
E0	3.97×10^{-7}
E1	4.24×10^{-10}
$\lambda_{TK} (\mu m)$	0.182

部分分散および部分分散比 Partial Dispersions and Relative Partial Dispersions			
nC-nt	nC-nA'	nd-nC	ne-nC
0.00878	0.00369	0.00321	0.00573
$\theta_{C,t}$	$\theta_{C,A'}$	$\theta_{d,C}$	$\theta_{e,C}$
0.833	0.350	0.305	0.544
ng-nd	ng-nF	nh-ng	ni-ng
0.01305	0.00572	0.00473	0.01276
$\theta_{g,d}$	$\theta_{g,F(\Delta)}$	$\theta_{h,g}$	$\theta_{i,g}$
1.238	0.543 (0.0036)	0.449	1.211
nC'-nt	ne-nC'	nF'-ne	ni-nF'
0.00929	0.00522	0.00541	0.01788
$\theta'_{C',t}$	$\theta'_{e,C'}$	$\theta'_{F',e}$	$\theta'_{i,F'}$
0.874	0.491	0.509	1.682

機械的性質 Mechanical Properties	熱的性質 Thermal Properties
ヌープ硬さ Hk Knoop Hardness 557 (6)	転移点 Tg (°C) Transformation Point 506
ビッカース硬さ Hv Vickers Hardness 555	屈伏点 At (°C) Yielding Point 542
摩耗度 Ha Abrasion 170	線膨張係数 $\alpha (\times 10^{-7} \text{°C}^{-1})$ Thermal Expansion
ヤング率 E ($\times 10^8 \text{N} \cdot \text{m}^{-2}$) Young's Modulus 1044	(-30~+70°C) 81 (+100~+300°C) 103
剛性率 G ($\times 10^8 \text{N} \cdot \text{m}^{-2}$) Modulus of Rigidity 403	熱伝導率 $\lambda (\text{W} \cdot \text{m}^{-1} \cdot \text{K}^{-1})$ Thermal Conductivity 0.788
ポアソン比 σ Poisson Ratio 0.295	比熱 Cp ($\text{J} \cdot \text{kg}^{-1} \cdot \text{K}^{-1}$) Specific Heat 536
化学的性質 Chemical Properties	その他 Other Properties
耐水性(粉末法) RW Water Resistance 1	泡 B Bubbles
耐酸性(粉末法) RA Acid Resistance 5	着色度 C Coloration 36/28
耐久性(表面法) DW Chemical Durability 1	比重 S.g Specific Gravity 4.36
備考 Remarks	生産頻度 PF Production frequency

内部透過率 τ Internal Transmittance		
$\lambda(\text{nm})$	3mm	10mm
270	0.461	0.076
280	0.536	0.126
290	0.626	0.211
300	0.696	0.300
310	0.732	0.354
320	0.851	0.584
330	0.904	0.715
340	0.941	0.818
350	0.963	0.885
360	0.976	0.925
370	0.985	0.953
380	0.990	0.970
390	0.994	0.981
400	0.995	0.987
420	0.998	0.993
440	0.998	0.996
460	0.999	0.997
480	0.999	0.998
500	0.999	0.998
550	0.999	0.999
600	0.999	0.999
650	0.999	0.999
700	0.999	0.999
800	0.999	0.999
1060	0.999	0.999
1500	0.999	0.998
2000	0.993	0.977

屈折率の温度係数 Temperature Coefficients of Refractive Index						
	(dn/dT)rel. ($\times 10^{-6} \text{°C}^{-1}$)			(dn/dT)abs. ($\times 10^{-6} \text{°C}^{-1}$)		
(°C)	1548.1	d	g	1548.1	d	g
-40/-20	-2.2	-1.8	-1.2	-4.4	-4.0	-3.5
0/+20	-2.3	-1.8	-1.1	-3.9	-3.4	-2.8
+40/+60	-2.3	-1.8	-1.1	-3.6	-3.0	-2.4

670554 K-VC78	nd	1.66955	ν d	55.4	nF-nC	0.01208
	ne	1.67243	ν e	55.2	nF'-nC'	0.01218

屈折率 Refractive Indices		
n1548	1548.1	1.64792
n1309	1308.5	1.65137
nt	1014.0	1.65604
nA'	768.2	1.66169
nr	706.5	1.66379
nC	656.3	1.66588
nC'	643.9	1.66646
nD	589.3	1.66944
nd	587.6	1.66955
ne	546.1	1.67243
nF	486.1	1.67796
nF'	480.0	1.67864
ng	435.8	1.68453
nh	404.7	1.69000
ni	365.0	1.69934

分散式の常数 Constants of Dispersion Formula	
A0	2.7376882
A1	$-1.2269245 \times 10^{-2}$
A2	1.7439403×10^{-2}
A3	4.7088707×10^{-4}
A4	$-2.7150134 \times 10^{-5}$
A5	1.8172045×10^{-6}

dn/dTの分散常数 Constants of Dispersion dn/dT abs.	
D0	-1.00×10^{-6}
D1	1.60×10^{-8}
D2	-1.38×10^{-10}
E0	5.07×10^{-7}
E1	3.13×10^{-10}
$\lambda_{TK} (\mu m)$	0.190

部分分散および部分分散比 Partial Dispersions and Relative Partial Dispersions			
nC-nt	nC-nA'	nd-nC	ne-nC
0.00984	0.00419	0.00367	0.00655
$\theta_{C,t}$	$\theta_{C,A'}$	$\theta_{d,C}$	$\theta_{e,C}$
0.815	0.347	0.304	0.542
ng-nd	ng-nF	nh-ng	ni-ng
0.01498	0.00657	0.00547	0.01481
$\theta_{g,d}$	$\theta_{g,F(\Delta)}$	$\theta_{h,g}$	$\theta_{i,g}$
1.240	0.544 (-0.0071)	0.453	1.226
nC'-nt	ne-nC'	nF'-ne	ni-nF'
0.01042	0.00597	0.00621	0.02070
$\theta'_{C',t}$	$\theta'_{e,C'}$	$\theta'_{F',e}$	$\theta'_{i,F'}$
0.856	0.490	0.510	1.700

機械的性質 Mechanical Properties	熱的性質 Thermal Properties
ヌープ硬さ Hk Knoop Hardness 561 (6)	転移点 Tg (°C) Transformation Point 520
ビッカース硬さ Hv Vickers Hardness 560	屈伏点 At (°C) Yielding Point 556
摩耗度 Ha Abrasion 110	線膨張係数 $\alpha (\times 10^{-7} \text{°C}^{-1})$ Thermal Expansion
ヤング率 E ($\times 10^8 \text{N} \cdot \text{m}^{-2}$) Young's Modulus 1061	(-30~+70°C) 80 (+100~+300°C) 100
剛性率 G ($\times 10^8 \text{N} \cdot \text{m}^{-2}$) Modulus of Rigidity 415	熱伝導率 $\lambda (\text{W} \cdot \text{m}^{-1} \cdot \text{K}^{-1})$ Thermal Conductivity 0.916
ポアソン比 σ Poisson Ratio 0.279	比熱 Cp ($\text{J} \cdot \text{kg}^{-1} \cdot \text{K}^{-1}$) Specific Heat 690
化学的性質 Chemical Properties	その他 Other Properties
耐水性(粉末法) RW Water Resistance 1	泡 B Bubbles
耐酸性(粉末法) RA Acid Resistance 4	着色度 C Coloration 35/28
耐久性(表面法) DW Chemical Durability 1	比重 S.g Specific Gravity 3.44
備考 Remarks	生産頻度 PF Production frequency C

内部透過率 τ Internal Transmittance		
$\lambda(\text{nm})$	3mm	10mm
270	0.428	0.059
280	0.506	0.103
290	0.611	0.194
300	0.695	0.297
310	0.740	0.366
320	0.858	0.602
330	0.911	0.733
340	0.947	0.834
350	0.970	0.903
360	0.982	0.943
370	0.990	0.967
380	0.993	0.977
390	0.995	0.983
400	0.996	0.988
420	0.997	0.991
440	0.998	0.994
460	0.998	0.995
480	0.998	0.996
500	0.999	0.997
550	0.999	0.998
600	0.999	0.996
650	0.999	0.996
700	0.999	0.996
800	0.998	0.996
1060	0.999	0.997
1500	0.999	0.997
2000	0.993	0.977

屈折率の温度係数 Temperature Coefficients of Refractive Index						
	(dn/dT)rel. ($\times 10^{-6} \text{°C}^{-1}$)			(dn/dT)abs. ($\times 10^{-6} \text{°C}^{-1}$)		
(°C)	1548.1	d	g	1548.1	d	g
-40/-20	0.4	1.1	2.0	-1.8	-1.1	-0.3
0/+20	1.0	1.8	2.7	-0.6	0.1	1.0
+40/+60	1.1	2.0	3.0	-0.1	0.7	1.6

610579 K-VC79	nd	1.61035	ν d	57.9	nF-nC	0.01054
	ne	1.61286	ν e	57.7	nF'-nC'	0.01063

屈折率 Refractive Indices		
n1548	1548.1	1.59099
n1309	1308.5	1.59417
nt	1014.0	1.59843
nA'	768.2	1.60347
nr	706.5	1.60531
nC	656.3	1.60714
nC'	643.9	1.60765
nD	589.3	1.61025
nd	587.6	1.61035
ne	546.1	1.61286
nF	486.1	1.61768
nF'	480.0	1.61828
ng	435.8	1.62338
nh	404.7	1.62810
ni	365.0	1.63618

分散式の常数 Constants of Dispersion Formula	
A0	2.5520489
A1	$-1.1234947 \times 10^{-2}$
A2	1.4455084×10^{-2}
A3	4.6725318×10^{-4}
A4	$-3.6714004 \times 10^{-5}$
A5	2.2810504×10^{-6}

dn/dTの分散常数 Constants of Dispersion dn/dT abs.	
D0	5.06×10^{-7}
D1	1.46×10^{-8}
D2	-2.13×10^{-11}
E0	4.85×10^{-7}
E1	4.45×10^{-11}
$\lambda_{TK} (\mu m)$	0.187

部分分散および部分分散比 Partial Dispersions and Relative Partial Dispersions			
nC-nt	nC-nA'	nd-nC	ne-nC
0.00871	0.00367	0.00321	0.00572
$\theta_{C,t}$	$\theta_{C,A'}$	$\theta_{d,C}$	$\theta_{e,C}$
0.826	0.348	0.305	0.543
ng-nd	ng-nF	nh-ng	ni-ng
0.01303	0.00570	0.00472	0.01280
$\theta_{g,d}$	$\theta_{g,F(\Delta)}$	$\theta_{h,g}$	$\theta_{i,g}$
1.236	0.541 (-0.0060)	0.448	1.214
nC'-nt	ne-nC'	nF'-ne	ni-nF'
0.00922	0.00521	0.00542	0.01790
$\theta'_{C',t}$	$\theta'_{e,C'}$	$\theta'_{F',e}$	$\theta'_{i,F'}$
0.867	0.490	0.510	1.684

機械的性質 Mechanical Properties	熱的性質 Thermal Properties
ヌープ硬さ Hk Knoop Hardness 599 (6)	転移点 Tg (°C) Transformation Point 516
ビッカース硬さ Hv Vickers Hardness 609	屈伏点 At (°C) Yielding Point 553
摩耗度 Ha Abrasion 120	線膨張係数 $\alpha (\times 10^{-7} \text{°C}^{-1})$ Thermal Expansion
ヤング率 E ($\times 10^8 \text{N} \cdot \text{m}^{-2}$) Young's Modulus 1008	(-30~+70°C) 72 (+100~+300°C) 93
剛性率 G ($\times 10^8 \text{N} \cdot \text{m}^{-2}$) Modulus of Rigidity 401	熱伝導率 $\lambda (\text{W} \cdot \text{m}^{-1} \cdot \text{K}^{-1})$ Thermal Conductivity 1.010
ポアソン比 σ Poisson Ratio 0.256	比熱 Cp ($\text{J} \cdot \text{kg}^{-1} \cdot \text{K}^{-1}$) Specific Heat 727
化学的性質 Chemical Properties	その他 Other Properties
耐水性(粉末法) RW Water Resistance 1	泡 B Bubbles
耐酸性(粉末法) RA Acid Resistance 4	着色度 C Coloration 34/29
耐久性(表面法) DW Chemical Durability 2	比重 S.g Specific Gravity 3.09
備考 Remarks	生産頻度 PF Production frequency A

内部透過率 τ Internal Transmittance		
$\lambda(\text{nm})$	3mm	10mm
270	0.334	0.026
280	0.425	0.058
290	0.560	0.144
300	0.689	0.289
310	0.782	0.441
320	0.885	0.666
330	0.935	0.799
340	0.965	0.889
350	0.981	0.939
360	0.990	0.967
370	0.994	0.982
380	0.996	0.988
390	0.997	0.991
400	0.997	0.992
420	0.997	0.992
440	0.997	0.992
460	0.998	0.994
480	0.999	0.997
500	0.999	0.997
550	0.999	0.998
600	0.999	0.996
650	0.999	0.996
700	0.999	0.997
800	0.999	0.998
1060	0.999	0.999
1500	0.999	0.997
2000	0.993	0.978

屈折率の温度係数 Temperature Coefficients of Refractive Index						
	(dn/dT)rel. ($\times 10^{-6} \text{°C}^{-1}$)			(dn/dT)abs. ($\times 10^{-6} \text{°C}^{-1}$)		
(°C)	1548.1	d	g	1548.1	d	g
-40/-20	1.7	2.4	3.2	-0.4	0.2	1.0
0/+20	1.8	2.5	3.3	0.2	0.9	1.7
+40/+60	1.9	2.7	3.5	0.7	1.4	2.3

694531 K-VC80	nd	1.69384	ν d	53.1	nF-nC	0.01306
	ne	1.69696	ν e	52.9	nF'-nC'	0.01317

屈折率 Refractive Indices		
n1548	1548.1	1.67086
n1309	1308.5	1.67444
nt	1014.0	1.67935
nA'	768.2	1.68539
nr	706.5	1.68764
nC	656.3	1.68989
nC'	643.9	1.69052
nD	589.3	1.69373
nd	587.6	1.69384
ne	546.1	1.69696
nF	486.1	1.70295
nF'	480.0	1.70369
ng	435.8	1.71012
nh	404.7	1.71607
ni	365.0	1.72616

分散式の常数 Constants of Dispersion Formula	
A0	2.8135722
A1	$-1.2577591 \times 10^{-2}$
A2	1.9933465×10^{-2}
A3	1.5711222×10^{-4}
A4	4.0676176×10^{-5}
A5	$-2.4977604 \times 10^{-6}$

dn/dTの分散常数 Constants of Dispersion dn/dT abs.	
D0	1.72×10^{-6}
D1	1.69×10^{-8}
D2	-1.41×10^{-10}
E0	6.62×10^{-7}
E1	9.46×10^{-10}
$\lambda_{TK} (\mu m)$	0.149

部分分散および部分分散比 Partial Dispersions and Relative Partial Dispersions			
nC-nt	nC-nA'	nd-nC	ne-nC
0.01054	0.00450	0.00395	0.00707
$\theta_{C,t}$	$\theta_{C,A'}$	$\theta_{d,C}$	$\theta_{e,C}$
0.807	0.345	0.302	0.541
ng-nd	ng-nF	nh-ng	ni-ng
0.01628	0.00717	0.00595	0.01604
$\theta_{g,d}$	$\theta_{g,F(\Delta)}$	$\theta_{h,g}$	$\theta_{i,g}$
1.247	0.549 (-0.0059)	0.456	1.228
nC'-nt	ne-nC'	nF'-ne	ni-nF'
0.01117	0.00644	0.00673	0.02247
$\theta_{C',t}$	$\theta_{e,C'}$	$\theta_{F',e}$	$\theta_{i,F'}$
0.848	0.489	0.511	1.706

機械的性質 Mechanical Properties	熱的性質 Thermal Properties
ヌープ硬さ Hk Knoop Hardness 531 (5)	転移点 Tg (°C) Transformation Point 530
ビッカース硬さ Hv Vickers Hardness 521	屈伏点 At (°C) Yielding Point 566
摩耗度 Ha Abrasion 120	線膨張係数 $\alpha (\times 10^{-7} \text{°C}^{-1})$ Thermal Expansion
ヤング率 E ($\times 10^8 \text{N} \cdot \text{m}^{-2}$) Young's Modulus 1059	(-30~+70°C) 64 (+100~+300°C) 94
剛性率 G ($\times 10^8 \text{N} \cdot \text{m}^{-2}$) Modulus of Rigidity 416	熱伝導率 $\lambda (\text{W} \cdot \text{m}^{-1} \cdot \text{K}^{-1})$ Thermal Conductivity 0.827
ポアソン比 σ Poisson Ratio 0.273	比熱 Cp ($\text{J} \cdot \text{kg}^{-1} \cdot \text{K}^{-1}$) Specific Heat 617
化学的性質 Chemical Properties	その他 Other Properties
耐水性(粉末法) RW Water Resistance 1	泡 B Bubbles
耐酸性(粉末法) RA Acid Resistance 4	着色度 C Coloration 36/29
耐久性(表面法) DW Chemical Durability 1	比重 S.g Specific Gravity 3.81
備考 Remarks	生産頻度 PF Production frequency A

内部透過率 τ Internal Transmittance		
$\lambda(\text{nm})$	3mm	10mm
270	0.320	0.022
280	0.358	0.032
290	0.508	0.104
300	0.636	0.222
310	0.696	0.298
320	0.835	0.550
330	0.895	0.693
340	0.938	0.808
350	0.964	0.887
360	0.980	0.936
370	0.989	0.965
380	0.993	0.977
390	0.995	0.985
400	0.996	0.989
420	0.997	0.993
440	0.998	0.995
460	0.999	0.997
480	0.999	0.998
500	0.999	0.998
550	0.999	0.999
600	0.999	0.999
650	0.999	0.999
700	0.999	0.999
800	0.999	0.999
1060	0.999	0.999
1500	0.999	0.997
2000	0.991	0.972

屈折率の温度係数 Temperature Coefficients of Refractive Index						
	(dn/dT)rel. ($\times 10^{-6} \text{°C}^{-1}$)			(dn/dT)abs. ($\times 10^{-6} \text{°C}^{-1}$)		
(°C)	1548.1	d	g	1548.1	d	g
-40/-20	1.8	2.7	3.7	-0.4	0.4	1.3
0/+20	2.5	3.5	4.6	0.9	1.8	2.9
+40/+60	2.7	3.8	5.1	1.4	2.5	3.7

756456 K-VC82	nd	1.75550	ν d	45.6	nF-nC	0.01657
	ne	1.75944	ν e	45.4	nF'-nC'	0.01674

屈折率 Refractive Indices		
n1548	1548.1	1.72777
n1309	1308.5	1.73187
nt	1014.0	1.73760
nA'	768.2	1.74495
nr	706.5	1.74773
nC	656.3	1.75053
nC'	643.9	1.75132
nD	589.3	1.75535
nd	587.6	1.75550
ne	546.1	1.75944
nF	486.1	1.76710
nF'	480.0	1.76806
ng	435.8	1.77636
nh	404.7	1.78418
ni	365.0	1.79788

分散式の常数 Constants of Dispersion Formula	
A0	3.0092545
A1	$-1.4428442 \times 10^{-2}$
A2	2.4950143×10^{-2}
A3	6.5325890×10^{-4}
A4	$-1.7536585 \times 10^{-5}$
A5	2.6440099×10^{-6}

dn/dTの分散常数 Constants of Dispersion dn/dT abs.	
D0	5.27×10^{-6}
D1	1.73×10^{-8}
D2	-7.19×10^{-11}
E0	6.68×10^{-7}
E1	9.93×10^{-10}
$\lambda_{TK} (\mu m)$	0.203

部分分散および部分分散比 Partial Dispersions and Relative Partial Dispersions			
nC-nt	nC-nA'	nd-nC	ne-nC
0.01293	0.00558	0.00497	0.00891
$\theta_{C,t}$	$\theta_{C,A'}$	$\theta_{d,C}$	$\theta_{e,C}$
0.780	0.337	0.300	0.538
ng-nd	ng-nF	nh-ng	ni-ng
0.02086	0.00926	0.00782	0.02152
$\theta_{g,d}$	$\theta_{g,F(\Delta)}$	$\theta_{h,g}$	$\theta_{i,g}$
1.259	0.559 (-0.0085)	0.472	1.299
nC'-nt	ne-nC'	nF'-ne	ni-nF'
0.01372	0.00812	0.00862	0.02982
$\theta_{C',t}$	$\theta_{e,C'}$	$\theta_{F',e}$	$\theta_{i,F'}$
0.820	0.485	0.515	1.781

機械的性質 Mechanical Properties	熱的性質 Thermal Properties
ヌープ硬さ Hk Knoop Hardness 689 (7)	転移点 Tg (°C) Transformation Point 526
ビッカース硬さ Hv Vickers Hardness 712	屈伏点 At (°C) Yielding Point 563
摩耗度 Ha Abrasion 93	線膨張係数 $\alpha (\times 10^{-7} \text{°C}^{-1})$ Thermal Expansion 59
ヤング率 E ($\times 10^8 \text{N} \cdot \text{m}^{-2}$) Young's Modulus 1113	(-30~+70°C) 59 (+100~+300°C) 80
剛性率 G ($\times 10^8 \text{N} \cdot \text{m}^{-2}$) Modulus of Rigidity 434	熱伝導率 $\lambda (\text{W} \cdot \text{m}^{-1} \cdot \text{K}^{-1})$ Thermal Conductivity 0.856
ポアソン比 σ Poisson Ratio 0.281	比熱 Cp ($\text{J} \cdot \text{kg}^{-1} \cdot \text{K}^{-1}$) Specific Heat 566
化学的性質 Chemical Properties	その他 Other Properties
耐水性(粉末法) RW Water Resistance 1	泡 B Bubbles
耐酸性(粉末法) RA Acid Resistance 4	着色度 C Coloration 38/33
耐久性(表面法) DW Chemical Durability 1	比重 S.g Specific Gravity 4.25
備考 Remarks	生産頻度 PF Production frequency B

内部透過率 τ Internal Transmittance		
$\lambda(\text{nm})$	3mm	10mm
270		
280		
290		
300		
310		
320	0.187	
330	0.439	0.064
340	0.723	0.340
350	0.870	0.629
360	0.935	0.800
370	0.965	0.888
380	0.978	0.931
390	0.986	0.956
400	0.990	0.969
420	0.994	0.981
440	0.996	0.986
460	0.997	0.991
480	0.998	0.994
500	0.999	0.996
550	0.999	0.998
600	0.999	0.998
650	0.999	0.998
700	0.999	0.998
800	0.999	0.998
1060	0.999	0.999
1500	0.998	0.997
2000	0.991	0.971

屈折率の温度係数 Temperature Coefficients of Refractive Index						
	(dn/dT)rel. ($\times 10^{-6} \text{°C}^{-1}$)			(dn/dT)abs. ($\times 10^{-6} \text{°C}^{-1}$)		
(°C)	1548.1	d	g	1548.1	d	g
-40/-20	4.2	5.3	6.6	1.9	2.9	4.1
0/+20	4.7	5.9	7.4	3.0	4.2	5.6
+40/+60	5.0	6.4	8.1	3.7	5.0	6.7

810410 K-VC89	nd	1.81000	ν d	41.0	nF-nC	0.01976
	ne	1.81469	ν e	40.8	nF'-nC'	0.01999

屈折率 Refractive Indices		
n1548	1548.1	1.77922
n1309	1308.5	1.78331
nt	1014.0	1.78938
nA'	768.2	1.79755
nr	706.5	1.80080
nC	656.3	1.80410
nC'	643.9	1.80503
nD	589.3	1.80982
nd	587.6	1.81000
ne	546.1	1.81469
nF	486.1	1.82386
nF'	480.0	1.82502
ng	435.8	1.83507
nh	404.7	1.84464
ni	365.0	1.86153

分散式の常数 Constants of Dispersion Formula	
A0	3.1860388
A1	$-1.3756822 \times 10^{-2}$
A2	2.9614017×10^{-2}
A3	1.2383727×10^{-3}
A4	$-8.0134175 \times 10^{-5}$
A5	7.2330635×10^{-6}

dn/dTの分散常数 Constants of Dispersion dn/dT abs.	
D0	5.61×10^{-6}
D1	1.72×10^{-8}
D2	-1.79×10^{-10}
E0	7.49×10^{-7}
E1	7.58×10^{-10}
$\lambda_{TK} (\mu m)$	0.227

部分分散および部分分散比 Partial Dispersions and Relative Partial Dispersions			
nC-nt	nC-nA'	nd-nC	ne-nC
0.01472	0.00655	0.00590	0.01059
$\theta_{C,t}$	$\theta_{C,A'}$	$\theta_{d,C}$	$\theta_{e,C}$
0.745	0.331	0.299	0.536
ng-nd	ng-nF	nh-ng	ni-ng
0.02507	0.01121	0.00957	0.02646
$\theta_{g,d}$	$\theta_{g,F(\Delta)}$	$\theta_{h,g}$	$\theta_{i,g}$
1.269	0.567 (-0.0079)	0.484	1.339
nC'-nt	ne-nC'	nF'-ne	ni-nF'
0.01565	0.00966	0.01033	0.03651
$\theta_{C',t}$	$\theta_{e,C'}$	$\theta_{F',e}$	$\theta_{i,F'}$
0.783	0.483	0.517	1.826

機械的性質 Mechanical Properties	熱的性質 Thermal Properties
ヌープ硬さ Hk Knoop Hardness 644 (6)	転移点 Tg (°C) Transformation Point 528
ビッカース硬さ Hv Vickers Hardness 654	屈伏点 At (°C) Yielding Point 559
摩耗度 Ha Abrasion 78	線膨張係数 $\alpha (\times 10^{-7} \text{°C}^{-1})$ Thermal Expansion 64
ヤング率 E ($\times 10^8 \text{N} \cdot \text{m}^{-2}$) Young's Modulus 1124	(-30~+70°C) 64 (+100~+300°C) 83
剛性率 G ($\times 10^8 \text{N} \cdot \text{m}^{-2}$) Modulus of Rigidity 436	熱伝導率 $\lambda (\text{W} \cdot \text{m}^{-1} \cdot \text{K}^{-1})$ Thermal Conductivity 0.831
ポアソン比 σ Poisson Ratio 0.290	比熱 Cp ($\text{J} \cdot \text{kg}^{-1} \cdot \text{K}^{-1}$) Specific Heat 516
化学的性質 Chemical Properties	その他 Other Properties
耐水性(粉末法) RW Water Resistance 1	泡 B Bubbles
耐酸性(粉末法) RA Acid Resistance 3	着色度 C Coloration 40/34
耐久性(表面法) DW Chemical Durability 1	比重 S.g Specific Gravity 4.75
備考 Remarks	生産頻度 PF Production frequency A

内部透過率 τ Internal Transmittance		
$\lambda(\text{nm})$	3mm	10mm
270		
280		
290		
300		
310		
320		
330	0.267	
340	0.590	0.172
350	0.820	0.516
360	0.919	0.755
370	0.959	0.870
380	0.977	0.926
390	0.985	0.953
400	0.989	0.966
420	0.993	0.979
440	0.995	0.985
460	0.996	0.989
480	0.997	0.992
500	0.998	0.995
550	0.999	0.997
600	0.999	0.996
650	0.999	0.997
700	0.999	0.997
800	0.999	0.998
1060	0.999	0.999
1500	0.999	0.997
2000	0.991	0.971

屈折率の温度係数 Temperature Coefficients of Refractive Index						
	(dn/dT)rel. ($\times 10^{-6} \text{°C}^{-1}$)			(dn/dT)abs. ($\times 10^{-6} \text{°C}^{-1}$)		
(°C)	1548.1	d	g	1548.1	d	g
-40/-20	4.1	5.5	7.3	1.7	3.0	4.8
0/+20	5.1	6.7	8.6	3.4	4.8	6.8
+40/+60	5.3	7.0	9.1	4.0	5.6	7.7

853390 K-VC90	nd	1.85280	ν d	39.0	nF-nC	0.02186
	ne	1.85799	ν e	38.8	nF'-nC'	0.02214

屈折率 Refractive Indices		
n1548	1548.1	1.81978
n1309	1308.5	1.82396
nt	1014.0	1.83032
nA'	768.2	1.83920
nr	706.5	1.84273
nC	656.3	1.84633
nC'	643.9	1.84734
nD	589.3	1.85261
nd	587.6	1.85280
ne	546.1	1.85799
nF	486.1	1.86819
nF'	480.0	1.86948
ng	435.8	1.88072
nh	404.7	1.89147
ni	365.0	1.91060

分散式の常数 Constants of Dispersion Formula	
A0	3.3299316
A1	$-1.3661207 \times 10^{-2}$
A2	3.4088332×10^{-2}
A3	1.0979548×10^{-3}
A4	$-2.7983676 \times 10^{-5}$
A5	5.1728980×10^{-6}

dn/dTの分散常数 Constants of Dispersion dn/dT abs.	
D0	4.39×10^{-7}
D1	1.31×10^{-8}
D2	-1.78×10^{-10}
E0	7.82×10^{-7}
E1	9.78×10^{-10}
$\lambda_{TK} (\mu m)$	0.232

部分分散および部分分散比 Partial Dispersions and Relative Partial Dispersions			
nC-nt	nC-nA'	nd-nC	ne-nC
0.01601	0.00713	0.00647	0.01166
$\theta_{C,t}$	$\theta_{C,A'}$	$\theta_{d,C}$	$\theta_{e,C}$
0.732	0.326	0.296	0.533
ng-nd	ng-nF	nh-ng	ni-ng
0.02792	0.01253	0.01075	0.02988
$\theta_{g,d}$	$\theta_{g,F(\Delta)}$	$\theta_{h,g}$	$\theta_{i,g}$
1.277	0.573 (-0.0054)	0.492	1.367
nC'-nt	ne-nC'	nF'-ne	ni-nF'
0.01702	0.01065	0.01149	0.04112
$\theta_{C',t}$	$\theta_{e,C'}$	$\theta_{F',e}$	$\theta_{i,F'}$
0.769	0.481	0.519	1.857

機械的性質 Mechanical Properties	熱的性質 Thermal Properties
ヌープ硬さ Hk Knoop Hardness 707 (7)	転移点 Tg (°C) Transformation Point 583
ビッカース硬さ Hv Vickers Hardness 712	屈伏点 At (°C) Yielding Point 633
摩耗度 Ha Abrasion 80	線膨張係数 $\alpha (\times 10^{-7} \text{°C}^{-1})$ Thermal Expansion
ヤング率 E ($\times 10^8 \text{N} \cdot \text{m}^{-2}$) Young's Modulus 1222	(-30~+70°C) 77 (+100~+300°C) 94
剛性率 G ($\times 10^8 \text{N} \cdot \text{m}^{-2}$) Modulus of Rigidity 476	熱伝導率 $\lambda (\text{W} \cdot \text{m}^{-1} \cdot \text{K}^{-1})$ Thermal Conductivity 0.829
ポアソン比 σ Poisson Ratio 0.283	比熱 Cp ($\text{J} \cdot \text{kg}^{-1} \cdot \text{K}^{-1}$) Specific Heat 480
化学的性質 Chemical Properties	その他 Other Properties
耐水性(粉末法) RW Water Resistance 1	泡 B Bubbles
耐酸性(粉末法) RA Acid Resistance 2	着色度 C Coloration (38)/34
耐久性(表面法) DW Chemical Durability 1	比重 S.g Specific Gravity 4.98
備考 Remarks	生産頻度 PF Production frequency

内部透過率 τ Internal Transmittance		
$\lambda(\text{nm})$	3mm	10mm
270		
280		
290		
300		
310		
320		
330	0.141	
340	0.407	0.050
350	0.689	0.289
360	0.837	0.553
370	0.907	0.723
380	0.943	0.822
390	0.962	0.879
400	0.973	0.912
420	0.983	0.945
440	0.986	0.956
460	0.990	0.967
480	0.993	0.977
500	0.995	0.983
550	0.997	0.990
600	0.996	0.989
650	0.996	0.989
700	0.997	0.992
800	0.998	0.994
1060	0.999	0.998
1500	0.999	0.998
2000	0.995	0.983

屈折率の温度係数 Temperature Coefficients of Refractive Index						
	(dn/dT)rel. ($\times 10^{-6} \text{°C}^{-1}$)			(dn/dT)abs. ($\times 10^{-6} \text{°C}^{-1}$)		
(°C)	1548.1	d	g	1548.1	d	g
-40/-20	1.2	2.6	4.5	-1.2	0.1	1.9
0/+20	2.1	3.7	5.8	0.3	1.8	3.9
+40/+60	2.1	3.8	6.1	0.7	2.4	4.7

887350 K-VC91	nd	1.88660	ν d	35.0	nF-nC	0.02536
	ne	1.89262	ν e	34.7	nF'-nC'	0.02572

屈折率 Refractive Indices		
n1548	1548.1	1.84957
n1309	1308.5	1.85408
nt	1014.0	1.86106
nA'	768.2	1.87104
nr	706.5	1.87505
nC	656.3	1.87916
nC'	643.9	1.88032
nD	589.3	1.88638
nd	587.6	1.88660
ne	546.1	1.89262
nF	486.1	1.90452
nF'	480.0	1.90604
ng	435.8	1.91929
nh	404.7	1.93212
ni	365.0	1.95542

分散式の常数 Constants of Dispersion Formula	
A0	3.4398054
A1	$-1.4667565 \times 10^{-2}$
A2	3.8194385×10^{-2}
A3	1.8572053×10^{-3}
A4	$-1.0460909 \times 10^{-4}$
A5	1.2213163×10^{-5}

dn/dTの分散常数 Constants of Dispersion dn/dT abs.	
D0	-1.08×10^{-6}
D1	1.12×10^{-8}
D2	-9.02×10^{-11}
E0	8.61×10^{-7}
E1	1.32×10^{-9}
$\lambda_{TK} (\mu m)$	0.245

部分分散および部分分散比 Partial Dispersions and Relative Partial Dispersions			
nC-nt	nC-nA'	nd-nC	ne-nC
0.01810	0.00812	0.00744	0.01346
$\theta_{C,t}$	$\theta_{C,A'}$	$\theta_{d,C}$	$\theta_{e,C}$
0.714	0.320	0.293	0.531
ng-nd	ng-nF	nh-ng	ni-ng
0.03269	0.01477	0.01283	0.03613
$\theta_{g,d}$	$\theta_{g,F(\Delta)}$	$\theta_{h,g}$	$\theta_{i,g}$
1.289	0.582 (-0.0029)	0.506	1.425
nC'-nt	ne-nC'	nF'-ne	ni-nF'
0.01926	0.01230	0.01342	0.04938
$\theta'_{C',t}$	$\theta'_{e,C'}$	$\theta'_{F',e}$	$\theta'_{i,F'}$
0.749	0.478	0.522	1.920

機械的性質 Mechanical Properties	熱的性質 Thermal Properties
ヌープ硬さ Hk Knoop Hardness 693 (7)	転移点 Tg (°C) Transformation Point 589
ビッカース硬さ Hv Vickers Hardness 711	屈伏点 At (°C) Yielding Point 638
摩耗度 Ha Abrasion 85	線膨張係数 $\alpha (\times 10^{-7} \text{°C}^{-1})$ Thermal Expansion 77
ヤング率 E ($\times 10^8 \text{N} \cdot \text{m}^{-2}$) Young's Modulus 1253	(-30~+70°C) 77 (+100~+300°C) 95
剛性率 G ($\times 10^8 \text{N} \cdot \text{m}^{-2}$) Modulus of Rigidity 489	熱伝導率 $\lambda (\text{W} \cdot \text{m}^{-1} \cdot \text{K}^{-1})$ Thermal Conductivity 0.887
ポアソン比 σ Poisson Ratio 0.281	比熱 Cp ($\text{J} \cdot \text{kg}^{-1} \cdot \text{K}^{-1}$) Specific Heat 499
化学的性質 Chemical Properties	その他 Other Properties
耐水性(粉末法) RW Water Resistance 1	泡 B Bubbles
耐酸性(粉末法) RA Acid Resistance 1	着色度 C Coloration (41)/36
耐久性(表面法) DW Chemical Durability 1	比重 S.g Specific Gravity 4.87
備考 Remarks	生産頻度 PF Production frequency

内部透過率 τ Internal Transmittance		
$\lambda(\text{nm})$	3mm	10mm
270		
280		
290		
300		
310		
320		
330		
340	0.098	
350	0.321	0.022
360	0.572	0.155
370	0.739	0.365
380	0.839	0.557
390	0.898	0.699
400	0.933	0.794
420	0.967	0.896
440	0.980	0.935
460	0.986	0.956
480	0.991	0.970
500	0.994	0.980
550	0.997	0.991
600	0.998	0.993
650	0.997	0.993
700	0.998	0.995
800	0.998	0.996
1060	0.999	0.999
1500	0.999	0.998
2000	0.993	0.978

屈折率の温度係数 Temperature Coefficients of Refractive Index						
	(dn/dT)rel. ($\times 10^{-6} \text{°C}^{-1}$)			(dn/dT)abs. ($\times 10^{-6} \text{°C}^{-1}$)		
(°C)	1548.1	d	g	1548.1	d	g
-40/-20	0.8	2.3	4.6	-1.7	-0.2	1.9
0/+20	1.2	3.0	5.5	-0.6	1.1	3.6
+40/+60	1.2	3.2	6.1	-0.2	1.8	4.6

851416 K-VC99	nd	1.85060	ν d	41.6	nF-nC	0.02044
	ne	1.85546	ν e	41.4	nF'-nC'	0.02067

屈折率 Refractive Indices		
n1548	1548.1	1.81831
n1309	1308.5	1.82270
nt	1014.0	1.82913
nA'	768.2	1.83775
nr	706.5	1.84111
nC	656.3	1.84451
nC'	643.9	1.84547
nD	589.3	1.85042
nd	587.6	1.85060
ne	546.1	1.85546
nF	486.1	1.86495
nF'	480.0	1.86614
ng	435.8	1.87648
nh	404.7	1.88627
ni	365.0	1.90342

分散式の常数 Constants of Dispersion Formula	
A0	3.3294765
A1	$-1.5324675 \times 10^{-2}$
A2	3.1941277×10^{-2}
A3	1.0078745×10^{-3}
A4	$-2.8400554 \times 10^{-5}$
A5	3.4886860×10^{-6}

dn/dTの分散常数 Constants of Dispersion dn/dT abs.	
D0	4.51×10^{-6}
D1	1.51×10^{-8}
D2	-2.57×10^{-10}
E0	7.41×10^{-7}
E1	8.37×10^{-10}
$\lambda_{TK} (\mu m)$	0.205

部分分散および部分分散比 Partial Dispersions and Relative Partial Dispersions			
nC-nt	nC-nA'	nd-nC	ne-nC
0.01538	0.00676	0.00609	0.01095
$\theta_{C,t}$	$\theta_{C,A'}$	$\theta_{d,C}$	$\theta_{e,C}$
0.752	0.331	0.298	0.536
ng-nd	ng-nF	nh-ng	ni-ng
0.02588	0.01153	0.00979	0.02694
$\theta_{g,d}$	$\theta_{g,F(\Delta)}$	$\theta_{h,g}$	$\theta_{i,g}$
1.266	0.564 (-0.0101)	0.479	1.318
nC'-nt	ne-nC'	nF'-ne	ni-nF'
0.01634	0.00999	0.01068	0.03728
$\theta_{C',t}$	$\theta_{e,C'}$	$\theta_{F',e}$	$\theta_{i,F'}$
0.791	0.483	0.517	1.804

機械的性質 Mechanical Properties	熱的性質 Thermal Properties
ヌープ硬さ Hk Knoop Hardness 717 (7)	転移点 Tg (°C) Transformation Point 616
ビッカース硬さ Hv Vickers Hardness 711	屈伏点 At (°C) Yielding Point 653
摩耗度 Ha Abrasion 68	線膨張係数 $\alpha (\times 10^{-7} \text{°C}^{-1})$ Thermal Expansion 60
ヤング率 E ($\times 10^8 \text{N} \cdot \text{m}^{-2}$) Young's Modulus 1216	(-30~+70°C) 60 (+100~+300°C) 73
剛性率 G ($\times 10^8 \text{N} \cdot \text{m}^{-2}$) Modulus of Rigidity 471	熱伝導率 $\lambda (\text{W} \cdot \text{m}^{-1} \cdot \text{K}^{-1})$ Thermal Conductivity 0.813
ポアソン比 σ Poisson Ratio 0.292	比熱 Cp ($\text{J} \cdot \text{kg}^{-1} \cdot \text{K}^{-1}$) Specific Heat 459
化学的性質 Chemical Properties	その他 Other Properties
耐水性(粉末法) RW Water Resistance 1	泡 B Bubbles
耐酸性(粉末法) RA Acid Resistance 2	着色度 C Coloration (38)/32
耐久性(表面法) DW Chemical Durability 1	比重 S.g Specific Gravity 5.15
備考 Remarks	生産頻度 PF Production frequency

内部透過率 τ Internal Transmittance		
$\lambda(\text{nm})$	3mm	10mm
270		
280		
290		
300		
310	0.236	
320	0.477	0.085
330	0.644	0.231
340	0.761	0.404
350	0.844	0.570
360	0.902	0.710
370	0.939	0.813
380	0.962	0.881
390	0.975	0.921
400	0.983	0.944
420	0.989	0.965
440	0.992	0.974
460	0.994	0.981
480	0.996	0.987
500	0.997	0.991
550	0.998	0.995
600	0.998	0.995
650	0.998	0.995
700	0.998	0.996
800	0.998	0.998
1060	0.999	0.998
1500	0.998	0.997
2000	0.991	0.972

屈折率の温度係数 Temperature Coefficients of Refractive Index						
	(dn/dT)rel. ($\times 10^{-6} \text{°C}^{-1}$)			(dn/dT)abs. ($\times 10^{-6} \text{°C}^{-1}$)		
(°C)	1548.1	d	g	1548.1	d	g
-40/-20	3.3	4.6	6.3	0.9	2.1	3.7
0/+20	4.6	6.1	8.0	2.8	4.3	6.1
+40/+60	4.6	6.2	8.2	3.2	4.8	6.8

804436 K-VC100	nd	1.80400	ν d	43.6	nF-nC	0.01844
	ne	1.80838	ν e	43.3	nF'-nC'	0.01865

屈折率 Refractive Indices		
n1548	1548.1	1.77411
n1309	1308.5	1.77834
nt	1014.0	1.78441
nA'	768.2	1.79235
nr	706.5	1.79541
nC	656.3	1.79849
nC'	643.9	1.79936
nD	589.3	1.80384
nd	587.6	1.80400
ne	546.1	1.80838
nF	486.1	1.81693
nF'	480.0	1.81801
ng	435.8	1.82731
nh	404.7	1.83610
ni	365.0	1.85150

分散式の常数 Constants of Dispersion Formula	
A0	3.1712789
A1	$-1.4900418 \times 10^{-2}$
A2	2.8162431×10^{-2}
A3	8.3037332×10^{-4}
A4	$-1.8683781 \times 10^{-5}$
A5	2.6807865×10^{-6}

dn/dTの分散常数 Constants of Dispersion dn/dT abs.	
D0	4.79×10^{-6}
D1	1.51×10^{-8}
D2	-1.35×10^{-10}
E0	6.25×10^{-7}
E1	7.77×10^{-10}
$\lambda_{TK} (\mu m)$	0.229

部分分散および部分分散比 Partial Dispersions and Relative Partial Dispersions			
nC-nt	nC-nA'	nd-nC	ne-nC
0.01408	0.00614	0.00551	0.00989
$\theta_{C,t}$	$\theta_{C,A'}$	$\theta_{d,C}$	$\theta_{e,C}$
0.764	0.333	0.299	0.536
ng-nd	ng-nF	nh-ng	ni-ng
0.02331	0.01038	0.00879	0.02419
$\theta_{g,d}$	$\theta_{g,F(\Delta)}$	$\theta_{h,g}$	$\theta_{i,g}$
1.264	0.563 (-0.0079)	0.477	1.312
nC'-nt	ne-nC'	nF'-ne	ni-nF'
0.01495	0.00902	0.00963	0.03349
$\theta_{C',t}$	$\theta_{e,C'}$	$\theta_{F',e}$	$\theta_{i,F'}$
0.802	0.484	0.516	1.796

機械的性質 Mechanical Properties	熱的性質 Thermal Properties
ヌープ硬さ Hk Knoop Hardness 728 (7)	転移点 Tg (°C) Transformation Point 570
ビッカース硬さ Hv Vickers Hardness 723	屈伏点 At (°C) Yielding Point 609
摩耗度 Ha Abrasion 65	線膨張係数 $\alpha (\times 10^{-7} \text{°C}^{-1})$ Thermal Expansion
ヤング率 E ($\times 10^8 \text{N} \cdot \text{m}^{-2}$) Young's Modulus 1181	(-30~+70°C) 58 (+100~+300°C) 72
剛性率 G ($\times 10^8 \text{N} \cdot \text{m}^{-2}$) Modulus of Rigidity 458	熱伝導率 $\lambda (\text{W} \cdot \text{m}^{-1} \cdot \text{K}^{-1})$ Thermal Conductivity 0.803
ポアソン比 σ Poisson Ratio 0.288	比熱 Cp ($\text{J} \cdot \text{kg}^{-1} \cdot \text{K}^{-1}$) Specific Heat 500
化学的性質 Chemical Properties	その他 Other Properties
耐水性(粉末法) RW Water Resistance 1	泡 B Bubbles
耐酸性(粉末法) RA Acid Resistance 3	着色度 C Coloration 40/34
耐久性(表面法) DW Chemical Durability 1	比重 S.g Specific Gravity 4.71
備考 Remarks	生産頻度 PF Production frequency

内部透過率 τ Internal Transmittance		
$\lambda(\text{nm})$	3mm	10mm
270		
280		
290		
300		
310		
320		
330	0.253	
340	0.563	0.148
350	0.782	0.440
360	0.891	0.681
370	0.941	0.819
380	0.966	0.892
390	0.978	0.931
400	0.985	0.951
420	0.990	0.969
440	0.993	0.978
460	0.995	0.983
480	0.996	0.988
500	0.997	0.991
550	0.998	0.993
600	0.997	0.993
650	0.998	0.993
700	0.998	0.995
800	0.999	0.997
1060	0.999	0.999
1500	0.998	0.997
2000	0.991	0.971

屈折率の温度係数 Temperature Coefficients of Refractive Index						
	(dn/dT)rel. ($\times 10^{-6} \text{°C}^{-1}$)			(dn/dT)abs. ($\times 10^{-6} \text{°C}^{-1}$)		
(°C)	1548.1	d	g	1548.1	d	g
-40/-20	3.9	5.0	6.5	1.5	2.6	4.0
0/+20	4.6	5.9	7.5	2.8	4.1	5.7
+40/+60	4.7	6.1	8.0	3.4	4.8	6.5

749453 K-VC174	nd	1.74850	ν d	45.3	nF-nC	0.01653
	ne	1.75244	ν e	45.0	nF'-nC'	0.01671

屈折率 Refractive Indices		
n1548	1548.1	1.72187
n1309	1308.5	1.72557
nt	1014.0	1.73094
nA'	768.2	1.73805
nr	706.5	1.74079
nC	656.3	1.74356
nC'	643.9	1.74434
nD	589.3	1.74836
nd	587.6	1.74850
ne	546.1	1.75244
nF	486.1	1.76009
nF'	480.0	1.76105
ng	435.8	1.76935
nh	404.7	1.77717
ni	365.0	1.79080

分散式の常数 Constants of Dispersion Formula	
A0	2.9840633
A1	$-1.2410593 \times 10^{-2}$
A2	2.4927807×10^{-2}
A3	6.5043729×10^{-4}
A4	$-1.2933305 \times 10^{-5}$
A5	1.9810658×10^{-6}

dn/dTの分散常数 Constants of Dispersion dn/dT abs.	
D0	-3.16×10^{-6}
D1	1.43×10^{-8}
D2	-9.72×10^{-11}
E0	6.22×10^{-7}
E1	4.32×10^{-10}
$\lambda_{TK} (\mu m)$	0.214

部分分散および部分分散比 Partial Dispersions and Relative Partial Dispersions			
nC-nt	nC-nA'	nd-nC	ne-nC
0.01262	0.00551	0.00494	0.00888
$\theta_{C,t}$	$\theta_{C,A'}$	$\theta_{d,C}$	$\theta_{e,C}$
0.763	0.333	0.299	0.537
ng-nd	ng-nF	nh-ng	ni-ng
0.02085	0.00926	0.00782	0.02145
$\theta_{g,d}$	$\theta_{g,F(\Delta)}$	$\theta_{h,g}$	$\theta_{i,g}$
1.261	0.560 (-0.0080)	0.473	1.298
nC'-nt	ne-nC'	nF'-ne	ni-nF'
0.01340	0.00810	0.00861	0.02975
$\theta'_{C',t}$	$\theta'_{e,C'}$	$\theta'_{F',e}$	$\theta'_{i,F'}$
0.802	0.485	0.515	1.780

機械的性質 Mechanical Properties	熱的性質 Thermal Properties
ヌープ硬さ Hk Knoop Hardness 585 (6)	転移点 Tg (°C) Transformation Point 524
ビッカース硬さ Hv Vickers Hardness 606	屈伏点 At (°C) Yielding Point 562
摩耗度 Ha Abrasion 124	線膨張係数 $\alpha (\times 10^{-7} \text{°C}^{-1})$ Thermal Expansion
ヤング率 E ($\times 10^8 \text{N} \cdot \text{m}^{-2}$) Young's Modulus 1074	(-30~+70°C) 83 (+100~+300°C) 105
剛性率 G ($\times 10^8 \text{N} \cdot \text{m}^{-2}$) Modulus of Rigidity 414	熱伝導率 $\lambda (\text{W} \cdot \text{m}^{-1} \cdot \text{K}^{-1})$ Thermal Conductivity
ポアソン比 σ Poisson Ratio 0.297	比熱 Cp ($\text{J} \cdot \text{kg}^{-1} \cdot \text{K}^{-1}$) Specific Heat
化学的性質 Chemical Properties	その他 Other Properties
耐水性(粉末法) RW Water Resistance 1	泡 B Bubbles
耐酸性(粉末法) RA Acid Resistance 3	着色度 C Coloration 38/31
耐久性(表面法) DW Chemical Durability 1	比重 S.g Specific Gravity 3.92
備考 Remarks	生産頻度 PF Production frequency

内部透過率 τ Internal Transmittance		
$\lambda(\text{nm})$	3mm	10mm
270		
280		
290		
300	0.254	
310	0.489	0.092
320	0.703	0.309
330	0.810	0.497
340	0.880	0.654
350	0.926	0.774
360	0.954	0.856
370	0.971	0.908
380	0.981	0.941
390	0.987	0.958
400	0.990	0.968
420	0.993	0.977
440	0.994	0.983
460	0.996	0.987
480	0.997	0.991
500	0.998	0.994
550	0.998	0.996
600	0.998	0.996
650	0.999	0.996
700	0.999	0.997
800	0.999	0.997
1060	0.999	0.998
1500	0.999	0.997
2000	0.991	0.972

屈折率の温度係数 Temperature Coefficients of Refractive Index						
	(dn/dT)rel. ($\times 10^{-6} \text{°C}^{-1}$)			(dn/dT)abs. ($\times 10^{-6} \text{°C}^{-1}$)		
(°C)	1548.1	d	g	1548.1	d	g
-40/-20	-0.6	0.4	1.7	-2.9	-2.0	-0.8
0/+20	-0.1	0.9	2.3	-1.8	-0.8	0.5
+40/+60	0.0	1.1	2.5	-1.3	-0.2	1.2

799418 K-VC179	nd	1.79890	ν d	41.8	nF-nC	0.01909
	ne	1.80343	ν e	41.6	nF'-nC'	0.01932

屈折率 Refractive Indices		
n1548	1548.1	1.76880
n1309	1308.5	1.77288
nt	1014.0	1.77888
nA'	768.2	1.78692
nr	706.5	1.79005
nC	656.3	1.79322
nC'	643.9	1.79411
nD	589.3	1.79873
nd	587.6	1.79890
ne	546.1	1.80343
nF	486.1	1.81231
nF'	480.0	1.81343
ng	435.8	1.82313
nh	404.7	1.83234
ni	365.0	1.84855

分散式の常数 Constants of Dispersion Formula	
A0	3.1494839
A1	$-1.3834728 \times 10^{-2}$
A2	2.9185440×10^{-2}
A3	8.0690933×10^{-4}
A4	$-6.1681096 \times 10^{-6}$
A5	2.3940146×10^{-6}

dn/dTの分散常数 Constants of Dispersion dn/dT abs.	
D0	5.81×10^{-6}
D1	1.54×10^{-8}
D2	-1.28×10^{-10}
E0	7.89×10^{-7}
E1	6.03×10^{-10}
$\lambda_{TK} (\mu m)$	0.215

部分分散および部分分散比 Partial Dispersions and Relative Partial Dispersions			
nC-nt	nC-nA'	nd-nC	ne-nC
0.01434	0.00630	0.00568	0.01021
$\theta_{C,t}$	$\theta_{C,A'}$	$\theta_{d,C}$	$\theta_{e,C}$
0.751	0.330	0.298	0.535
ng-nd	ng-nF	nh-ng	ni-ng
0.02423	0.01082	0.00921	0.02542
$\theta_{g,d}$	$\theta_{g,F(\Delta)}$	$\theta_{h,g}$	$\theta_{i,g}$
1.269	0.567 (-0.0069)	0.482	1.332
nC'-nt	ne-nC'	nF'-ne	ni-nF'
0.01523	0.00932	0.01000	0.03512
$\theta'_{C',t}$	$\theta'_{e,C'}$	$\theta'_{F',e}$	$\theta'_{i,F'}$
0.788	0.482	0.518	1.818

機械的性質 Mechanical Properties	熱的性質 Thermal Properties
ヌープ硬さ Hk Knoop Hardness 625 (6)	転移点 Tg (°C) Transformation Point 523
ビッカース硬さ Hv Vickers Hardness 612	屈伏点 At (°C) Yielding Point 561
摩耗度 Ha Abrasion 97	線膨張係数 $\alpha (\times 10^{-7} \text{°C}^{-1})$ Thermal Expansion
ヤング率 E ($\times 10^8 \text{N} \cdot \text{m}^{-2}$) Young's Modulus 1131	(-30~+70°C) 61 (+100~+300°C) 80
剛性率 G ($\times 10^8 \text{N} \cdot \text{m}^{-2}$) Modulus of Rigidity 433	熱伝導率 $\lambda (\text{W} \cdot \text{m}^{-1} \cdot \text{K}^{-1})$ Thermal Conductivity 0.815
ポアソン比 σ Poisson Ratio 0.306	比熱 Cp ($\text{J} \cdot \text{kg}^{-1} \cdot \text{K}^{-1}$) Specific Heat 520
化学的性質 Chemical Properties	その他 Other Properties
耐水性(粉末法) RW Water Resistance 1	泡 B Bubbles
耐酸性(粉末法) RA Acid Resistance 3	着色度 C Coloration 39/34
耐久性(表面法) DW Chemical Durability 1	比重 S.g Specific Gravity 4.65
備考 Remarks	生産頻度 PF Production frequency

内部透過率 τ Internal Transmittance		
$\lambda(\text{nm})$	3mm	10mm
270		
280		
290		
300		
310		
320	0.194	
330	0.266	
340	0.577	0.160
350	0.803	0.482
360	0.908	0.725
370	0.953	0.853
380	0.974	0.917
390	0.984	0.949
400	0.989	0.966
420	0.994	0.981
440	0.996	0.987
460	0.997	0.990
480	0.998	0.993
500	0.998	0.995
550	0.999	0.998
600	0.999	0.998
650	0.999	0.999
700	0.999	0.999
800	0.999	0.999
1060	0.999	0.999
1500	0.999	0.999
2000	0.992	0.976

屈折率の温度係数 Temperature Coefficients of Refractive Index						
	(dn/dT)rel. ($\times 10^{-6} \text{°C}^{-1}$)			(dn/dT)abs. ($\times 10^{-6} \text{°C}^{-1}$)		
(°C)	1548.1	d	g	1548.1	d	g
-40/-20	4.5	6.0	7.9	2.2	3.6	5.3
0/+20	5.2	6.8	8.8	3.5	5.0	6.9
+40/+60	5.4	7.1	9.2	4.1	5.7	7.7

811411 K-VC181	nd	1.81055	ν d	41.1	nF-nC	0.01970
	ne	1.81523	ν e	40.9	nF'-nC'	0.01994

屈折率 Refractive Indices		
n1548	1548.1	1.77992
n1309	1308.5	1.78401
nt	1014.0	1.79005
nA'	768.2	1.79824
nr	706.5	1.80144
nC	656.3	1.80470
nC'	643.9	1.80562
nD	589.3	1.81037
nd	587.6	1.81055
ne	546.1	1.81523
nF	486.1	1.82440
nF'	480.0	1.82556
ng	435.8	1.83561
nh	404.7	1.84517
ni	365.0	1.86206

分散式の常数 Constants of Dispersion Formula	
A0	3.1886895
A1	$-1.3820455 \times 10^{-2}$
A2	2.9631617×10^{-2}
A3	1.0659501×10^{-3}
A4	$-3.7795055 \times 10^{-5}$
A5	4.3966629×10^{-6}

dn/dTの分散常数 Constants of Dispersion dn/dT abs.	
D0	6.99×10^{-6}
D1	2.24×10^{-8}
D2	-2.94×10^{-10}
E0	8.37×10^{-7}
E1	3.41×10^{-10}
$\lambda_{TK} (\mu m)$	0.213

部分分散および部分分散比 Partial Dispersions and Relative Partial Dispersions			
nC-nt	nC-nA'	nd-nC	ne-nC
0.01465	0.00646	0.00585	0.01053
$\theta_{C,t}$	$\theta_{C,A'}$	$\theta_{d,C}$	$\theta_{e,C}$
0.744	0.328	0.297	0.535
ng-nd	ng-nF	nh-ng	ni-ng
0.02506	0.01121	0.00956	0.02645
$\theta_{g,d}$	$\theta_{g,F(\Delta)}$	$\theta_{h,g}$	$\theta_{i,g}$
1.272	0.569 (-0.0060)	0.485	1.343
nC'-nt	ne-nC'	nF'-ne	ni-nF'
0.01557	0.00961	0.01033	0.03650
$\theta'_{C',t}$	$\theta'_{e,C'}$	$\theta'_{F',e}$	$\theta'_{i,F'}$
0.781	0.482	0.518	1.830

機械的性質 Mechanical Properties	熱的性質 Thermal Properties
ヌープ硬さ Hk Knoop Hardness 677 (7)	転移点 Tg (°C) Transformation Point 548
ビッカース硬さ Hv Vickers Hardness 666	屈伏点 At (°C) Yielding Point 584
摩耗度 Ha Abrasion 90	線膨張係数 $\alpha (\times 10^{-7} \text{°C}^{-1})$ Thermal Expansion
ヤング率 E ($\times 10^8 \text{N} \cdot \text{m}^{-2}$) Young's Modulus 1104	(-30~+70°C) 57 (+100~+300°C) 79
剛性率 G ($\times 10^8 \text{N} \cdot \text{m}^{-2}$) Modulus of Rigidity 421	熱伝導率 $\lambda (\text{W} \cdot \text{m}^{-1} \cdot \text{K}^{-1})$ Thermal Conductivity 0.794
ポアソン比 σ Poisson Ratio 0.311	比熱 Cp ($\text{J} \cdot \text{kg}^{-1} \cdot \text{K}^{-1}$) Specific Heat 505
化学的性質 Chemical Properties	その他 Other Properties
耐水性(粉末法) RW Water Resistance 1	泡 B Bubbles
耐酸性(粉末法) RA Acid Resistance 3	着色度 C Coloration 40/34
耐久性(表面法) DW Chemical Durability 1	比重 S.g Specific Gravity 4.71
備考 Remarks	生産頻度 PF Production frequency B

内部透過率 τ Internal Transmittance		
$\lambda(\text{nm})$	3mm	10mm
270		
280		
290		
300		
310		
320		
330	0.192	
340	0.499	0.098
350	0.765	0.410
360	0.894	0.689
370	0.946	0.833
380	0.969	0.903
390	0.980	0.937
400	0.986	0.956
420	0.992	0.974
440	0.994	0.982
460	0.996	0.987
480	0.997	0.991
500	0.998	0.994
550	0.999	0.998
600	0.999	0.998
650	0.999	0.998
700	0.999	0.998
800	0.999	0.998
1060	0.999	0.999
1500	0.999	0.998
2000	0.993	0.977

屈折率の温度係数 Temperature Coefficients of Refractive Index						
	(dn/dT)rel. ($\times 10^{-6} \text{°C}^{-1}$)			(dn/dT)abs. ($\times 10^{-6} \text{°C}^{-1}$)		
(°C)	1548.1	d	g	1548.1	d	g
-40/-20	4.1	5.7	7.8	1.8	3.3	5.2
0/+20	5.9	7.6	9.7	4.1	5.8	7.9
+40/+60	6.2	7.9	10.1	4.8	6.5	8.7

854406 K-VC185	nd	1.85375	ν d	40.6	nF-nC	0.02103
	ne	1.85875	ν e	40.4	nF'-nC'	0.02128

屈折率 Refractive Indices		
n1548	1548.1	1.82100
n1309	1308.5	1.82536
nt	1014.0	1.83181
nA'	768.2	1.84058
nr	706.5	1.84401
nC	656.3	1.84750
nC'	643.9	1.84848
nD	589.3	1.85356
nd	587.6	1.85375
ne	546.1	1.85875
nF	486.1	1.86853
nF'	480.0	1.86976
ng	435.8	1.88045
nh	404.7	1.89060
ni	365.0	1.90848

分散式の常数 Constants of Dispersion Formula	
A0	3.3380677
A1	$-1.4969129 \times 10^{-2}$
A2	3.2739414×10^{-2}
A3	1.1048947×10^{-3}
A4	$-3.8597399 \times 10^{-5}$
A5	4.5931893×10^{-6}

dn/dTの分散常数 Constants of Dispersion dn/dT abs.	
D0	4.01×10^{-6}
D1	1.77×10^{-8}
D2	-2.37×10^{-10}
E0	7.39×10^{-7}
E1	1.02×10^{-9}
$\lambda_{TK} (\mu m)$	0.227

部分分散および部分分散比 Partial Dispersions and Relative Partial Dispersions			
nC-nt	nC-nA'	nd-nC	ne-nC
0.01569	0.00692	0.00625	0.01125
$\theta_{C,t}$	$\theta_{C,A'}$	$\theta_{d,C}$	$\theta_{e,C}$
0.746	0.329	0.297	0.535
ng-nd	ng-nF	nh-ng	ni-ng
0.02670	0.01192	0.01015	0.02803
$\theta_{g,d}$	$\theta_{g,F(\Delta)}$	$\theta_{h,g}$	$\theta_{i,g}$
1.270	0.567 (-0.0089)	0.483	1.333
nC'-nt	ne-nC'	nF'-ne	ni-nF'
0.01667	0.01027	0.01101	0.03872
$\theta_{C',t}$	$\theta_{e,C'}$	$\theta_{F',e}$	$\theta_{i,F'}$
0.783	0.483	0.517	1.820

機械的性質 Mechanical Properties	熱的性質 Thermal Properties
ヌープ硬さ Hk Knoop Hardness 700 (7)	転移点 Tg (°C) Transformation Point 617
ビッカース硬さ Hv Vickers Hardness 659	屈伏点 At (°C) Yielding Point 655
摩耗度 Ha Abrasion 70	線膨張係数 $\alpha (\times 10^{-7} \text{°C}^{-1})$ Thermal Expansion
ヤング率 E ($\times 10^8 \text{N} \cdot \text{m}^{-2}$) Young's Modulus 1237	(-30~+70°C) 58 (+100~+300°C) 70
剛性率 G ($\times 10^8 \text{N} \cdot \text{m}^{-2}$) Modulus of Rigidity 473	熱伝導率 $\lambda (\text{W} \cdot \text{m}^{-1} \cdot \text{K}^{-1})$ Thermal Conductivity 0.821
ポアソン比 σ Poisson Ratio 0.306	比熱 Cp ($\text{J} \cdot \text{kg}^{-1} \cdot \text{K}^{-1}$) Specific Heat 468
化学的性質 Chemical Properties	その他 Other Properties
耐水性(粉末法) RW Water Resistance 1	泡 B Bubbles
耐酸性(粉末法) RA Acid Resistance 3	着色度 C Coloration (37)/32
耐久性(表面法) DW Chemical Durability 1	比重 S.g Specific Gravity 5.00
備考 Remarks	生産頻度 PF Production frequency

内部透過率 τ Internal Transmittance		
$\lambda(\text{nm})$	3mm	10mm
270		
280		
290		
300		
310	0.175	
320	0.475	0.084
330	0.697	0.300
340	0.817	0.511
350	0.884	0.664
360	0.924	0.769
370	0.950	0.843
380	0.965	0.890
390	0.976	0.922
400	0.981	0.938
420	0.987	0.958
440	0.990	0.967
460	0.992	0.974
480	0.993	0.979
500	0.995	0.984
550	0.996	0.990
600	0.996	0.993
650	0.997	0.994
700	0.998	0.996
800	0.999	0.997
1060	0.998	0.997
1500	0.998	0.997
2000	0.993	0.978

屈折率の温度係数 Temperature Coefficients of Refractive Index						
	(dn/dT)rel. ($\times 10^{-6} \text{°C}^{-1}$)			(dn/dT)abs. ($\times 10^{-6} \text{°C}^{-1}$)		
(°C)	1548.1	d	g	1548.1	d	g
-40/-20	2.9	4.2	6.0	0.5	1.7	3.4
0/+20	4.3	5.8	7.8	2.5	4.0	5.9
+40/+60	4.4	6.1	8.4	3.0	4.7	6.9

693337 K-CD45	nd	1.69320	ν d	33.7	nF-nC	0.02056
	ne	1.69806	ν e	33.5	nF'-nC'	0.02086

屈折率 Refractive Indices		
n1548	1548.1	1.66293
n1309	1308.5	1.66672
nt	1014.0	1.67254
nA'	768.2	1.68067
nr	706.5	1.68389
nC	656.3	1.68719
nC'	643.9	1.68813
nD	589.3	1.69302
nd	587.6	1.69320
ne	546.1	1.69806
nF	486.1	1.70775
nF'	480.0	1.70899
ng	435.8	1.71990
nh	404.7	1.73062
ni	365.0	

分散式の常数 Constants of Dispersion Formula	
A0	2.7807680
A1	$-1.1432782 \times 10^{-2}$
A2	2.8238670×10^{-2}
A3	9.2607120×10^{-4}
A4	5.9615098×10^{-6}
A5	5.5996227×10^{-6}

dn/dTの分散常数 Constants of Dispersion dn/dT abs.	
D0	-4.77×10^{-6}
D1	1.49×10^{-8}
D2	-1.38×10^{-10}
E0	7.80×10^{-7}
E1	7.44×10^{-10}
$\lambda_{TK} (\mu m)$	0.271

部分分散および部分分散比 Partial Dispersions and Relative Partial Dispersions			
nC-nt	nC-nA'	nd-nC	ne-nC
0.01465	0.00652	0.00601	0.01087
$\theta_{C,t}$	$\theta_{C,A'}$	$\theta_{d,C}$	$\theta_{e,C}$
0.713	0.317	0.292	0.529
ng-nd	ng-nF	nh-ng	ni-ng
0.02670	0.01215	0.01072	
$\theta_{g,d}$	$\theta_{g,F(\Delta)}$	$\theta_{h,g}$	$\theta_{i,g}$
1.299	0.591 (0.0035)	0.521	
nC'-nt	ne-nC'	nF'-ne	ni-nF'
0.01559	0.00993	0.01093	
$\theta_{C',t}$	$\theta_{e,C'}$	$\theta_{F',e}$	$\theta_{i,F'}$
0.747	0.476	0.524	

機械的性質 Mechanical Properties	熱的性質 Thermal Properties
ヌープ硬さ Hk Knoop Hardness 562 (6)	転移点 Tg (°C) Transformation Point 470
ビッカース硬さ Hv Vickers Hardness 579	屈伏点 At (°C) Yielding Point 507
摩耗度 Ha Abrasion 200	線膨張係数 $\alpha (\times 10^{-7} \text{°C}^{-1})$ Thermal Expansion
ヤング率 E ($\times 10^8 \text{N} \cdot \text{m}^{-2}$) Young's Modulus 903	(-30~+70°C) 91 (+100~+300°C) 121
剛性率 G ($\times 10^8 \text{N} \cdot \text{m}^{-2}$) Modulus of Rigidity 358	熱伝導率 $\lambda (\text{W} \cdot \text{m}^{-1} \cdot \text{K}^{-1})$ Thermal Conductivity 0.916
ポアソン比 σ Poisson Ratio 0.260	比熱 Cp ($\text{J} \cdot \text{kg}^{-1} \cdot \text{K}^{-1}$) Specific Heat 721
化学的性質 Chemical Properties	その他 Other Properties
耐水性(粉末法) RW Water Resistance 2	泡 B Bubbles
耐酸性(粉末法) RA Acid Resistance 1	着色度 C Coloration 41/35
耐久性(表面法) DW Chemical Durability 1	比重 S.g Specific Gravity 3.13
備考 Remarks	生産頻度 PF Production frequency C

内部透過率 τ Internal Transmittance		
$\lambda(\text{nm})$	3mm	10mm
270		
280		
290		
300		
310		
320		
330		
340	0.118	
350	0.390	0.043
360	0.711	0.321
370	0.860	0.605
380	0.919	0.755
390	0.950	0.843
400	0.965	0.891
420	0.982	0.942
440	0.988	0.961
460	0.991	0.973
480	0.994	0.979
500	0.996	0.987
550	0.998	0.996
600	0.998	0.996
650	0.998	0.995
700	0.999	0.997
800	0.999	0.999
1060	0.999	0.999
1500	0.999	0.996
2000	0.990	0.968

屈折率の温度係数 Temperature Coefficients of Refractive Index						
	(dn/dT)rel. ($\times 10^{-6} \text{°C}^{-1}$)			(dn/dT)abs. ($\times 10^{-6} \text{°C}^{-1}$)		
(°C)	1548.1	d	g	1548.1	d	g
-40/-20	-1.5	-0.3	1.7	-3.7	-2.6	-0.7
0/+20	-0.9	0.4	2.6	-2.5	-1.3	0.8
+40/+60	-0.8	0.6	3.0	-2.1	-0.7	1.6

723292 K-CD120	nd	1.72250	ν d	29.2	nF-nC	0.02472
	ne	1.72833	ν e	29.0	nF'-nC'	0.02511

屈折率 Refractive Indices		
n1548	1548.1	1.68769
n1309	1308.5	1.69181
nt	1014.0	1.69826
nA'	768.2	1.70764
nr	706.5	1.71143
nC	656.3	1.71534
nC'	643.9	1.71646
nD	589.3	1.72228
nd	587.6	1.72250
ne	546.1	1.72833
nF	486.1	1.74006
nF'	480.0	1.74157
ng	435.8	1.75498
nh	404.7	1.76833
ni	365.0	

分散式の常数 Constants of Dispersion Formula	
A0	2.8630662
A1	$-1.1977981 \times 10^{-2}$
A2	3.2706279×10^{-2}
A3	1.6821116×10^{-3}
A4	$-7.4783483 \times 10^{-5}$
A5	1.4696883×10^{-5}

dn/dTの分散常数 Constants of Dispersion dn/dT abs.	
D0	-4.82×10^{-6}
D1	1.79×10^{-8}
D2	-2.28×10^{-10}
E0	9.05×10^{-7}
E1	2.82×10^{-10}
$\lambda_{TK} (\mu m)$	0.280

部分分散および部分分散比 Partial Dispersions and Relative Partial Dispersions			
nC-nt	nC-nA'	nd-nC	ne-nC
0.01708	0.00770	0.00716	0.01299
$\theta_{C,t}$	$\theta_{C,A'}$	$\theta_{d,C}$	$\theta_{e,C}$
0.691	0.311	0.290	0.525
ng-nd	ng-nF	nh-ng	ni-ng
0.03248	0.01492	0.01335	
$\theta_{g,d}$	$\theta_{g,F(\Delta)}$	$\theta_{h,g}$	$\theta_{i,g}$
1.314	0.604 (0.0090)	0.540	
nC'-nt	ne-nC'	nF'-ne	ni-nF'
0.01820	0.01187	0.01324	
$\theta_{C',t}$	$\theta_{e,C'}$	$\theta_{F',e}$	$\theta_{i,F'}$
0.725	0.473	0.527	

機械的性質 Mechanical Properties	熱的性質 Thermal Properties
ヌープ硬さ Hk Knoop Hardness 555 (6)	転移点 Tg (°C) Transformation Point 508
ビッカース硬さ Hv Vickers Hardness 560	屈伏点 At (°C) Yielding Point 549
摩耗度 Ha Abrasion 180	線膨張係数 $\alpha (\times 10^{-7} \text{°C}^{-1})$ Thermal Expansion
ヤング率 E ($\times 10^8 \text{N} \cdot \text{m}^{-2}$) Young's Modulus 902	(-30~+70°C) 92 (+100~+300°C) 119
剛性率 G ($\times 10^8 \text{N} \cdot \text{m}^{-2}$) Modulus of Rigidity 359	熱伝導率 $\lambda (\text{W} \cdot \text{m}^{-1} \cdot \text{K}^{-1})$ Thermal Conductivity 1.010
ポアソン比 σ Poisson Ratio 0.254	比熱 Cp ($\text{J} \cdot \text{kg}^{-1} \cdot \text{K}^{-1}$) Specific Heat 753
化学的性質 Chemical Properties	その他 Other Properties
耐水性(粉末法) RW Water Resistance 1	泡 B Bubbles
耐酸性(粉末法) RA Acid Resistance 1	着色度 C Coloration 43/36
耐久性(表面法) DW Chemical Durability 1	比重 S.g Specific Gravity 3.01
備考 Remarks	生産頻度 PF Production frequency C

内部透過率 τ Internal Transmittance		
$\lambda(\text{nm})$	3mm	10mm
270		
280		
290		
300		
310		
320		
330		
340		
350	0.142	
360	0.484	0.089
370	0.755	0.392
380	0.874	0.638
390	0.926	0.773
400	0.951	0.846
420	0.975	0.919
440	0.984	0.949
460	0.988	0.963
480	0.992	0.973
500	0.994	0.979
550	0.997	0.992
600	0.997	0.992
650	0.997	0.991
700	0.998	0.993
800	0.999	0.997
1060	0.999	0.999
1500	0.999	0.998
2000	0.995	0.982

屈折率の温度係数 Temperature Coefficients of Refractive Index						
	(dn/dT)rel. ($\times 10^{-6} \text{°C}^{-1}$)			(dn/dT)abs. ($\times 10^{-6} \text{°C}^{-1}$)		
(°C)	1548.1	d	g	1548.1	d	g
-40/-20	-2.1	-0.5	2.1	-4.3	-2.9	-0.3
0/+20	-1.0	0.7	3.4	-2.7	-1.1	1.7
+40/+60	-0.9	0.8	3.7	-2.2	-0.5	2.3

692296 K-CD300	nd	1.69220	ν d	29.6	nF-nC	0.02336
	ne	1.69772	ν e	29.4	nF'-nC'	0.02372

屈折率 Refractive Indices		
n1548	1548.1	1.65962
n1309	1308.5	1.66336
nt	1014.0	1.66933
nA'	768.2	1.67814
nr	706.5	1.68173
nC	656.3	1.68543
nC'	643.9	1.68649
nD	589.3	1.69200
nd	587.6	1.69220
ne	546.1	1.69772
nF	486.1	1.70879
nF'	480.0	1.71021
ng	435.8	1.72283
nh	404.7	1.73533
ni	365.0	1.75885

分散式の常数 Constants of Dispersion Formula	
A0	2.7660702
A1	$-1.0339855 \times 10^{-2}$
A2	3.0603824×10^{-2}
A3	1.6069801×10^{-3}
A4	$-8.5220479 \times 10^{-5}$
A5	1.4076295×10^{-5}

dn/dTの分散常数 Constants of Dispersion dn/dT abs.	
D0	-1.13×10^{-5}
D1	2.13×10^{-9}
D2	-3.30×10^{-10}
E0	9.62×10^{-7}
E1	1.20×10^{-9}
$\lambda_{TK} (\mu m)$	0.275

部分分散および部分分散比 Partial Dispersions and Relative Partial Dispersions			
nC-nt	nC-nA'	nd-nC	ne-nC
0.01610	0.00729	0.00677	0.01229
$\theta_{C,t}$	$\theta_{C,A'}$	$\theta_{d,C}$	$\theta_{e,C}$
0.689	0.312	0.290	0.526
ng-nd	ng-nF	nh-ng	ni-ng
0.03063	0.01404	0.01250	0.03602
$\theta_{g,d}$	$\theta_{g,F(\Delta)}$	$\theta_{h,g}$	$\theta_{i,g}$
1.311	0.601 (0.0067)	0.535	1.542
nC'-nt	ne-nC'	nF'-ne	ni-nF'
0.01716	0.01123	0.01249	0.04864
$\theta_{C',t}$	$\theta_{e,C'}$	$\theta_{F',e}$	$\theta_{i,F'}$
0.723	0.473	0.527	2.051

機械的性質 Mechanical Properties	熱的性質 Thermal Properties
ヌープ硬さ Hk Knoop Hardness 434 (4)	転移点 Tg (°C) Transformation Point 482
ビッカース硬さ Hv Vickers Hardness 422	屈伏点 At (°C) Yielding Point 519
摩耗度 Ha Abrasion 280	線膨張係数 $\alpha (\times 10^{-7} \text{°C}^{-1})$ Thermal Expansion
ヤング率 E ($\times 10^8 \text{N} \cdot \text{m}^{-2}$) Young's Modulus 694	(-30~+70°C) 119 (+100~+300°C) 141
剛性率 G ($\times 10^8 \text{N} \cdot \text{m}^{-2}$) Modulus of Rigidity 273	熱伝導率 $\lambda (\text{W} \cdot \text{m}^{-1} \cdot \text{K}^{-1})$ Thermal Conductivity 0.823
ポアソン比 σ Poisson Ratio 0.274	比熱 Cp ($\text{J} \cdot \text{kg}^{-1} \cdot \text{K}^{-1}$) Specific Heat 748
化学的性質 Chemical Properties	その他 Other Properties
耐水性(粉末法) RW Water Resistance 2	泡 B Bubbles
耐酸性(粉末法) RA Acid Resistance 2	着色度 C Coloration 41/36
耐久性(表面法) DW Chemical Durability 1	比重 S.g Specific Gravity 2.78
備考 Remarks	生産頻度 PF Production frequency

内部透過率 τ Internal Transmittance		
$\lambda(\text{nm})$	3mm	10mm
270		
280		
290		
300		
310		
320		
330		
340		
350	0.180	
360	0.533	0.123
370	0.782	0.441
380	0.895	0.692
390	0.944	0.825
400	0.967	0.894
420	0.985	0.952
440	0.990	0.966
460	0.992	0.973
480	0.993	0.979
500	0.995	0.984
550	0.998	0.993
600	0.996	0.988
650	0.995	0.983
700	0.996	0.988
800	0.999	0.998
1060	0.999	0.999
1500	0.999	0.998
2000	0.992	0.975

屈折率の温度係数 Temperature Coefficients of Refractive Index						
	(dn/dT)rel. ($\times 10^{-6} \text{°C}^{-1}$)			(dn/dT)abs. ($\times 10^{-6} \text{°C}^{-1}$)		
(°C)	1548.1	d	g	1548.1	d	g
-40/-20	-5.0	-3.7	-1.4	-7.2	-6.0	-3.8
0/+20	-4.2	-2.7	-0.1	-5.8	-4.4	-1.9
+40/+60	-4.9	-3.2	-0.4	-6.1	-4.5	-1.7

665473 K-LCV93	nd	1.66520	ν d	47.3	nF-nC	0.01406
	ne	1.66854	ν e	47.1	nF'-nC'	0.01420

屈折率 Refractive Indices		
n1548	1548.1	1.64146
n1309	1308.5	1.64504
nt	1014.0	1.65000
nA'	768.2	1.65624
nr	706.5	1.65860
nC	656.3	1.66098
nC'	643.9	1.66165
nD	589.3	1.66507
nd	587.6	1.66520
ne	546.1	1.66854
nF	486.1	1.67504
nF'	480.0	1.67585
ng	435.8	1.68288
nh	404.7	1.68948
ni	365.0	1.70100

分散式の常数 Constants of Dispersion Formula	
A0	2.7157014
A1	$-1.2306139 \times 10^{-2}$
A2	1.9299156×10^{-2}
A3	7.6108019×10^{-4}
A4	$-4.4909824 \times 10^{-5}$
A5	3.3413499×10^{-6}

dn/dTの分散常数 Constants of Dispersion dn/dT abs.	
D0	2.14×10^{-5}
D1	1.46×10^{-8}
D2	-1.89×10^{-10}
E0	7.20×10^{-7}
E1	9.27×10^{-10}
$\lambda_{TK} (\mu m)$	0.225

部分分散および部分分散比 Partial Dispersions and Relative Partial Dispersions			
nC-nt	nC-nA'	nd-nC	ne-nC
0.01098	0.00474	0.00422	0.00756
$\theta_{C,t}$	$\theta_{C,A'}$	$\theta_{d,C}$	$\theta_{e,C}$
0.781	0.337	0.300	0.538
ng-nd	ng-nF	nh-ng	ni-ng
0.01768	0.00784	0.00660	0.01812
$\theta_{g,d}$	$\theta_{g,F(\Delta)}$	$\theta_{h,g}$	$\theta_{i,g}$
1.257	0.558 (-0.0066)	0.469	1.289
nC'-nt	ne-nC'	nF'-ne	ni-nF'
0.01165	0.00689	0.00731	0.02515
$\theta_{C',t}$	$\theta_{e,C'}$	$\theta_{F',e}$	$\theta_{i,F'}$
0.820	0.485	0.515	1.771

機械的性質 Mechanical Properties	熱的性質 Thermal Properties
ヌープ硬さ Hk Knoop Hardness 552 (6)	転移点 Tg (°C) Transformation Point 547
ビッカース硬さ Hv Vickers Hardness 549	屈伏点 At (°C) Yielding Point 578
摩耗度 Ha Abrasion 80	線膨張係数 $\alpha (\times 10^{-7} \text{°C}^{-1})$ Thermal Expansion
ヤング率 E ($\times 10^8 \text{N} \cdot \text{m}^{-2}$) Young's Modulus 821	(-30~+70°C) 30 (+100~+300°C) 46
剛性率 G ($\times 10^8 \text{N} \cdot \text{m}^{-2}$) Modulus of Rigidity 313	熱伝導率 $\lambda (\text{W} \cdot \text{m}^{-1} \cdot \text{K}^{-1})$ Thermal Conductivity 0.767
ポアソン比 σ Poisson Ratio 0.309	比熱 Cp ($\text{J} \cdot \text{kg}^{-1} \cdot \text{K}^{-1}$) Specific Heat 631
化学的性質 Chemical Properties	その他 Other Properties
耐水性(粉末法) RW Water Resistance 1	泡 B Bubbles
耐酸性(粉末法) RA Acid Resistance 4	着色度 C Coloration 38/33
耐久性(表面法) DW Chemical Durability 1	比重 S.g Specific Gravity 3.64
備考 Remarks	生産頻度 PF Production frequency

内部透過率 τ Internal Transmittance		
$\lambda(\text{nm})$	3mm	10mm
270		
280		
290		
300		
310		
320	0.136	
330	0.325	0.023
340	0.621	0.204
350	0.820	0.517
360	0.913	0.739
370	0.955	0.858
380	0.975	0.920
390	0.985	0.952
400	0.990	0.969
420	0.995	0.986
440	0.997	0.991
460	0.998	0.994
480	0.999	0.996
500	0.999	0.998
550	0.999	0.999
600	0.999	0.999
650	0.999	0.999
700	0.999	0.999
800	0.999	0.999
1060	0.999	0.999
1500	0.999	0.997
2000	0.988	0.963

屈折率の温度係数 Temperature Coefficients of Refractive Index						
	(dn/dT)rel. ($\times 10^{-6} \text{°C}^{-1}$)			(dn/dT)abs. ($\times 10^{-6} \text{°C}^{-1}$)		
(°C)	1548.1	d	g	1548.1	d	g
-40/-20	11.9	13.3	14.9	9.7	11.0	12.5
0/+20	12.6	14.1	15.9	11.0	12.5	14.2
+40/+60	12.7	14.3	16.2	11.4	13.0	14.9

618453 K-LCV161	nd	1.61820	ν d	45.3	nF-nC	0.01364
	ne	1.62144	ν e	45.0	nF'-nC'	0.01380

屈折率 Refractive Indices		
n1548	1548.1	1.59595
n1309	1308.5	1.59916
nt	1014.0	1.60371
nA'	768.2	1.60961
nr	706.5	1.61186
nC	656.3	1.61414
nC'	643.9	1.61478
nD	589.3	1.61808
nd	587.6	1.61820
ne	546.1	1.62144
nF	486.1	1.62778
nF'	480.0	1.62858
ng	435.8	1.63554
nh	404.7	1.64219
ni	365.0	1.65402

分散式の常数 Constants of Dispersion Formula	
A0	2.5638471
A1	$-1.0292698 \times 10^{-2}$
A2	1.8684011×10^{-2}
A3	4.8290224×10^{-4}
A4	$-1.4901827 \times 10^{-6}$
A5	2.0486494×10^{-6}

dn/dTの分散常数 Constants of Dispersion dn/dT abs.	
D0	1.17×10^{-5}
D1	1.24×10^{-8}
D2	-2.65×10^{-10}
E0	6.56×10^{-7}
E1	6.54×10^{-10}
$\lambda_{TK} (\mu m)$	0.238

部分分散および部分分散比 Partial Dispersions and Relative Partial Dispersions			
nC-nt	nC-nA'	nd-nC	ne-nC
0.01043	0.00453	0.00406	0.00730
$\theta_{C,t}$	$\theta_{C,A'}$	$\theta_{d,C}$	$\theta_{e,C}$
0.765	0.332	0.298	0.535
ng-nd	ng-nF	nh-ng	ni-ng
0.01734	0.00776	0.00665	0.01848
$\theta_{g,d}$	$\theta_{g,F(\Delta)}$	$\theta_{h,g}$	$\theta_{i,g}$
1.271	0.569 (0.0010)	0.488	1.355
nC'-nt	ne-nC'	nF'-ne	ni-nF'
0.01107	0.00666	0.00714	0.02544
$\theta'_{C',t}$	$\theta'_{e,C'}$	$\theta'_{F',e}$	$\theta'_{i,F'}$
0.802	0.483	0.517	1.843

機械的性質 Mechanical Properties	熱的性質 Thermal Properties
ヌープ硬さ Hk Knoop Hardness 364 (4)	転移点 Tg (°C) Transformation Point 426
ビッカース硬さ Hv Vickers Hardness 297	屈伏点 At (°C) Yielding Point 469
摩耗度 Ha Abrasion 240	線膨張係数 $\alpha (\times 10^{-7} \text{°C}^{-1})$ Thermal Expansion 50
ヤング率 E ($\times 10^8 \text{N} \cdot \text{m}^{-2}$) Young's Modulus 451	(-30~+70°C) 50 (+100~+300°C) 67
剛性率 G ($\times 10^8 \text{N} \cdot \text{m}^{-2}$) Modulus of Rigidity 177	熱伝導率 $\lambda (\text{W} \cdot \text{m}^{-1} \cdot \text{K}^{-1})$ Thermal Conductivity 0.661
ポアソン比 σ Poisson Ratio 0.274	比熱 Cp ($\text{J} \cdot \text{kg}^{-1} \cdot \text{K}^{-1}$) Specific Heat 634
化学的性質 Chemical Properties	その他 Other Properties
耐水性(粉末法) RW Water Resistance 1	泡 B Bubbles
耐酸性(粉末法) RA Acid Resistance 4	着色度 C Coloration 36/32
耐久性(表面法) DW Chemical Durability 2	比重 S.g Specific Gravity 3.26
備考 Remarks	生産頻度 PF Production frequency

内部透過率 τ Internal Transmittance		
$\lambda(\text{nm})$	3mm	10mm
270		
280		
290		
300		
310		
320	0.321	0.022
330	0.721	0.336
340	0.906	0.721
350	0.953	0.853
360	0.968	0.899
370	0.976	0.923
380	0.982	0.942
390	0.986	0.956
400	0.989	0.964
420	0.991	0.973
440	0.993	0.978
460	0.994	0.981
480	0.995	0.984
500	0.996	0.987
550	0.997	0.991
600	0.997	0.992
650	0.998	0.993
700	0.998	0.994
800	0.998	0.995
1060	0.999	0.998
1500	0.995	0.985
2000	0.979	0.933

屈折率の温度係数 Temperature Coefficients of Refractive Index						
	(dn/dT)rel. ($\times 10^{-6} \text{°C}^{-1}$)			(dn/dT)abs. ($\times 10^{-6} \text{°C}^{-1}$)		
(°C)	1548.1	d	g	1548.1	d	g
-40/-20	6.4	7.5	8.9	4.2	5.3	6.6
0/+20	7.2	8.4	10.0	5.6	6.8	8.3
+40/+60	7.0	8.3	10.0	5.8	7.1	8.7

714389 K-ZnSF8	nd	1.71430	ν d	38.9	nF-nC	0.01838
	ne	1.71866	ν e	38.6	nF'-nC'	0.01860

屈折率 Refractive Indices		
n1548	1548.1	1.68586
n1309	1308.5	1.68968
nt	1014.0	1.69523
nA'	768.2	1.70285
nr	706.5	1.70583
nC	656.3	1.70886
nC'	643.9	1.70972
nD	589.3	1.71414
nd	587.6	1.71430
ne	546.1	1.71866
nF	486.1	1.72724
nF'	480.0	1.72832
ng	435.8	1.73780
nh	404.7	1.74687
ni	365.0	1.76313

分散式の常数 Constants of Dispersion Formula	
A0	2.8600337
A1	$-1.2073452 \times 10^{-2}$
A2	2.6131306×10^{-2}
A3	9.1303268×10^{-4}
A4	$-3.0467767 \times 10^{-5}$
A5	4.8918020×10^{-6}

dn/dTの分散常数 Constants of Dispersion dn/dT abs.	
D0	1.49×10^{-5}
D1	1.99×10^{-8}
D2	-2.60×10^{-10}
E0	8.88×10^{-7}
E1	7.78×10^{-10}
$\lambda_{TK} (\mu m)$	0.234

部分分散および部分分散比 Partial Dispersions and Relative Partial Dispersions			
nC-nt	nC-nA'	nd-nC	ne-nC
0.01363	0.00601	0.00544	0.00980
$\theta_{C,t}$	$\theta_{C,A'}$	$\theta_{d,C}$	$\theta_{e,C}$
0.742	0.327	0.296	0.533
ng-nd	ng-nF	nh-ng	ni-ng
0.02350	0.01056	0.00907	0.02533
$\theta_{g,d}$	$\theta_{g,F(\Delta)}$	$\theta_{h,g}$	$\theta_{i,g}$
1.279	0.575 (-0.0037)	0.493	1.378
nC'-nt	ne-nC'	nF'-ne	ni-nF'
0.01449	0.00894	0.00966	0.03481
$\theta'_{C',t}$	$\theta'_{e,C'}$	$\theta'_{F',e}$	$\theta'_{i,F'}$
0.779	0.481	0.519	1.872

機械的性質 Mechanical Properties	熱的性質 Thermal Properties
ヌープ硬さ Hk Knoop Hardness 512 (5)	転移点 Tg (°C) Transformation Point 518
ビッカース硬さ Hv Vickers Hardness 548	屈伏点 At (°C) Yielding Point 546
摩耗度 Ha Abrasion 100	線膨張係数 $\alpha (\times 10^{-7} \text{°C}^{-1})$ Thermal Expansion 49
ヤング率 E ($\times 10^8 \text{N} \cdot \text{m}^{-2}$) Young's Modulus 873	(-30~+70°C) 49 (+100~+300°C) 60
剛性率 G ($\times 10^8 \text{N} \cdot \text{m}^{-2}$) Modulus of Rigidity 333	熱伝導率 $\lambda (\text{W} \cdot \text{m}^{-1} \cdot \text{K}^{-1})$ Thermal Conductivity 0.793
ポアソン比 σ Poisson Ratio 0.311	比熱 Cp ($\text{J} \cdot \text{kg}^{-1} \cdot \text{K}^{-1}$) Specific Heat 636
化学的性質 Chemical Properties	その他 Other Properties
耐水性(粉末法) RW Water Resistance 1	泡 B Bubbles
耐酸性(粉末法) RA Acid Resistance 4	着色度 C Coloration 39/34
耐久性(表面法) DW Chemical Durability 2	比重 S.g Specific Gravity 3.72
備考 Remarks	生産頻度 PF Production frequency

内部透過率 τ Internal Transmittance		
$\lambda(\text{nm})$	3mm	10mm
270		
280		
290		
300		
310		
320		
330	0.187	
340	0.508	0.105
350	0.770	0.418
360	0.893	0.687
370	0.944	0.827
380	0.969	0.900
390	0.981	0.938
400	0.987	0.959
420	0.993	0.976
440	0.995	0.984
460	0.996	0.988
480	0.997	0.991
500	0.998	0.994
550	0.999	0.997
600	0.998	0.995
650	0.998	0.996
700	0.998	0.996
800	0.998	0.998
1060	0.998	0.998
1500	0.998	0.996
2000	0.990	0.969

屈折率の温度係数 Temperature Coefficients of Refractive Index						
	(dn/dT)rel. ($\times 10^{-6} \text{°C}^{-1}$)			(dn/dT)abs. ($\times 10^{-6} \text{°C}^{-1}$)		
(°C)	1548.1	d	g	1548.1	d	g
-40/-20	8.4	10.1	12.2	6.2	7.8	9.9
0/+20	9.7	11.6	13.9	8.1	9.9	12.1
+40/+60	9.9	11.8	14.3	8.6	10.5	13.0

※レンズ成形難易度が特に高い硝材です。

Optical Glass for Precision Molding

Moldability of this glass material is classified as "especially difficult".

K-PSFn1

907212 K-PSFn1	nd	1.90680	ν d	21.2	nF-nC	0.04287
	ne	1.91689	ν e	21.0	nF'-nC'	0.04369

屈折率 Refractive Indices		
n1548	1548.1	1.85156
n1309	1308.5	1.85727
nt	1014.0	1.86687
nA'	768.2	1.88192
nr	706.5	1.88815
nC	656.3	1.89467
nC'	643.9	1.89655
nD	589.3	1.90644
nd	587.6	1.90680
ne	546.1	1.91689
nF	486.1	1.93754
nF'	480.0	1.94024
ng	435.8	1.96461
nh	404.7	1.98970
ni	365.0	

分散式の常数 Constants of Dispersion Formula	
A0	3.4407637
A1	$-1.5750622 \times 10^{-2}$
A2	5.9024249×10^{-2}
A3	3.5647556×10^{-3}
A4	$-1.2641103 \times 10^{-4}$
A5	4.0309245×10^{-5}

dn/dTの分散常数 Constants of Dispersion dn/dT abs.	
D0	-3.11×10^{-6}
D1	1.75×10^{-8}
D2	-2.81×10^{-10}
E0	1.25×10^{-6}
E1	1.62×10^{-9}
$\lambda_{TK} (\mu m)$	0.307

部分分散および部分分散比 Partial Dispersions and Relative Partial Dispersions			
nC-nt	nC-nA'	nd-nC	ne-nC
0.02780	0.01275	0.01213	0.02222
$\theta_{C,t}$	$\theta_{C,A'}$	$\theta_{d,C}$	$\theta_{e,C}$
0.648	0.297	0.283	0.518
ng-nd	ng-nF	nh-ng	ni-ng
0.05781	0.02707	0.02509	
$\theta_{g,d}$	$\theta_{g,F(\Delta)}$	$\theta_{h,g}$	$\theta_{i,g}$
1.348	0.631 (0.0225)	0.585	
nC'-nt	ne-nC'	nF'-ne	ni-nF'
0.02968	0.02034	0.02335	
$\theta'_{C',t}$	$\theta'_{e,C'}$	$\theta'_{F',e}$	$\theta'_{i,F'}$
0.679	0.466	0.534	

機械的性質 Mechanical Properties	熱的性質 Thermal Properties
ヌープ硬さ Hk Knoop Hardness 444 (4)	転移点 Tg (°C) Transformation Point 498
ビッカース硬さ Hv Vickers Hardness 441	屈伏点 At (°C) Yielding Point 543
摩耗度 Ha Abrasion 310	線膨張係数 $\alpha (\times 10^{-7} \text{°C}^{-1})$ Thermal Expansion 74
ヤング率 E ($\times 10^8 \text{N} \cdot \text{m}^{-2}$) Young's Modulus 886	(-30~+70°C) 74 (+100~+300°C) 102
剛性率 G ($\times 10^8 \text{N} \cdot \text{m}^{-2}$) Modulus of Rigidity 359	熱伝導率 $\lambda (\text{W} \cdot \text{m}^{-1} \cdot \text{K}^{-1})$ Thermal Conductivity 0.811
ポアソン比 σ Poisson Ratio 0.233	比熱 Cp ($\text{J} \cdot \text{kg}^{-1} \cdot \text{K}^{-1}$) Specific Heat 546
化学的性質 Chemical Properties	その他 Other Properties
耐水性(粉末法) RW Water Resistance 1	泡 B Bubbles
耐酸性(粉末法) RA Acid Resistance 1	着色度 C Coloration (49)/39
耐久性(表面法) DW Chemical Durability 1	比重 S.g Specific Gravity 4.15
備考 Remarks Solarization	生産頻度 PF Production frequency B

内部透過率 τ Internal Transmittance		
$\lambda (\text{nm})$	3mm	10mm
270		
280		
290		
300		
310		
320		
330		
340		
350		
360		
370	0.086	
380	0.225	
390	0.495	0.096
400	0.699	0.303
420	0.876	0.643
440	0.935	0.801
460	0.960	0.873
480	0.972	0.910
500	0.980	0.935
550	0.992	0.973
600	0.996	0.988
650	0.997	0.990
700	0.997	0.992
800	0.998	0.994
1060	0.999	0.999
1500	0.998	0.995
2000	0.995	0.984

屈折率の温度係数 Temperature Coefficients of Refractive Index						
	(dn/dT)rel. ($\times 10^{-6} \text{°C}^{-1}$)			(dn/dT)abs. ($\times 10^{-6} \text{°C}^{-1}$)		
(°C)	1548.1	d	g	1548.1	d	g
-40/-20	-1.8	0.8	5.9	-4.3	-1.8	3.2
0/+20	-0.2	2.8	8.7	-2.0	0.9	6.7
+40/+60	-0.1	3.2	9.7	-1.5	1.8	8.2

※レンズ成形難易度が特に高い硝材です。

Optical Glass for Precision Molding

Moldability of this glass material is classified as "especially difficult".

K-PSFn2

002206 K-PSFn2	nd	2.00170	ν d	20.6	nF-nC	0.04852
	ne	2.01310	ν e	20.5	nF'-nC'	0.04947

屈折率 Refractive Indices		
n1548	1548.1	1.94154
n1309	1308.5	1.94708
nt	1014.0	1.95709
nA'	768.2	1.97365
nr	706.5	1.98065
nC	656.3	1.98800
nC'	643.9	1.99011
nD	589.3	2.00129
nd	587.6	2.00170
ne	546.1	2.01310
nF	486.1	2.03652
nF'	480.0	2.03958
ng	435.8	2.06726
nh	404.7	2.09566
ni	365.0	

分散式の常数 Constants of Dispersion Formula	
A0	3.7699503
A1	$-1.3004151 \times 10^{-2}$
A2	7.2310519×10^{-2}
A3	3.5123072×10^{-3}
A4	$-1.0361594 \times 10^{-5}$
A5	3.8615781×10^{-5}

dn/dTの分散常数 Constants of Dispersion dn/dT abs.	
D0	8.11×10^{-6}
D1	2.15×10^{-8}
D2	-1.06×10^{-10}
E0	2.16×10^{-6}
E1	2.01×10^{-9}
$\lambda_{TK} (\mu m)$	0.291

部分分散および部分分散比 Partial Dispersions and Relative Partial Dispersions			
nC-nt	nC-nA'	nd-nC	ne-nC
0.03091	0.01435	0.01370	0.02510
$\theta_{C,t}$	$\theta_{C,A'}$	$\theta_{d,C}$	$\theta_{e,C}$
0.637	0.296	0.282	0.517
ng-nd	ng-nF	nh-ng	ni-ng
0.06556	0.03074	0.02840	
$\theta_{g,d}$	$\theta_{g,F(\Delta)}$	$\theta_{h,g}$	$\theta_{i,g}$
1.351	0.634 (0.0241)	0.585	
nC'-nt	ne-nC'	nF'-ne	ni-nF'
0.03302	0.02299	0.02648	
$\theta'_{C',t}$	$\theta'_{e,C'}$	$\theta'_{F',e}$	$\theta'_{i,F'}$
0.667	0.465	0.535	

機械的性質 Mechanical Properties	熱的性質 Thermal Properties
ヌープ硬さ Hk Knoop Hardness 392 (4)	転移点 Tg (°C) Transformation Point 480
ビッカース硬さ Hv Vickers Hardness 426	屈伏点 At (°C) Yielding Point 514
摩耗度 Ha Abrasion 361	線膨張係数 $\alpha (\times 10^{-7} \text{°C}^{-1})$ Thermal Expansion 73
ヤング率 E ($\times 10^8 \text{N} \cdot \text{m}^{-2}$) Young's Modulus 747	(-30~+70°C) 73 (+100~+300°C) 92
剛性率 G ($\times 10^8 \text{N} \cdot \text{m}^{-2}$) Modulus of Rigidity 299	熱伝導率 $\lambda (\text{W} \cdot \text{m}^{-1} \cdot \text{K}^{-1})$ Thermal Conductivity 0.664
ポアソン比 σ Poisson Ratio 0.250	比熱 Cp ($\text{J} \cdot \text{kg}^{-1} \cdot \text{K}^{-1}$) Specific Heat 404
化学的性質 Chemical Properties	その他 Other Properties
耐水性(粉末法) RW Water Resistance 1	泡 B Bubbles
耐酸性(粉末法) RA Acid Resistance 1	着色度 C Coloration (50)/40
耐久性(表面法) DW Chemical Durability 1	比重 S.g Specific Gravity 5.48
備考 Remarks Solarization	生産頻度 PF Production frequency C

内部透過率 τ Internal Transmittance		
$\lambda(\text{nm})$	3mm	10mm
270		
280		
290		
300		
310		
320		
330		
340		
350		
360		
370		
380	0.131	
390	0.338	0.027
400	0.534	0.123
420	0.768	0.415
440	0.870	0.629
460	0.915	0.744
480	0.941	0.817
500	0.959	0.870
550	0.984	0.948
600	0.986	0.954
650	0.985	0.951
700	0.990	0.967
800	0.996	0.989
1060	0.998	0.994
1500	0.998	0.993
2000	0.994	0.981

屈折率の温度係数 Temperature Coefficients of Refractive Index						
	(dn/dT)rel. ($\times 10^{-6} \text{°C}^{-1}$)			(dn/dT)abs. ($\times 10^{-6} \text{°C}^{-1}$)		
(°C)	1548.1	d	g	1548.1	d	g
-40/-20	6.9	12.2	21.7	4.3	9.5	18.8
0/+20	8.0	13.9	24.1	6.1	11.9	22.0
+40/+60	8.7	15.0	26.0	7.2	13.4	24.4

※レンズ成形難易度が特に高い硝材です。

Optical Glass for Precision Molding

Moldability of this glass material is classified as "especially difficult".

K-PSFn3

839239 K-PSFn3	nd	1.83917	ν d	23.9	nF-nC	0.03517
	ne	1.84746	ν e	23.7	nF'-nC'	0.03581

屈折率 Refractive Indices		
n1548	1548.1	1.79230
n1309	1308.5	1.79741
nt	1014.0	1.80579
nA'	768.2	1.81846
nr	706.5	1.82369
nC	656.3	1.82915
nC'	643.9	1.83069
nD	589.3	1.83888
nd	587.6	1.83917
ne	546.1	1.84746
nF	486.1	1.86432
nF'	480.0	1.86650
ng	435.8	1.88619
nh	404.7	1.90616
ni	365.0	

分散式の常数 Constants of Dispersion Formula	
A0	3.2268914
A1	$-1.4590158 \times 10^{-2}$
A2	4.7763869×10^{-2}
A3	2.7173637×10^{-3}
A4	$-9.5689164 \times 10^{-5}$
A5	2.7097845×10^{-5}

dn/dTの分散常数 Constants of Dispersion dn/dT abs.	
D0	-8.51×10^{-6}
D1	1.46×10^{-8}
D2	-1.46×10^{-10}
E0	1.13×10^{-6}
E1	1.15×10^{-9}
$\lambda_{TK} (\mu m)$	0.294

部分分散および部分分散比 Partial Dispersions and Relative Partial Dispersions			
nC-nt	nC-nA'	nd-nC	ne-nC
0.02336	0.01069	0.01002	0.01831
$\theta_{C,t}$	$\theta_{C,A'}$	$\theta_{d,C}$	$\theta_{e,C}$
0.664	0.304	0.285	0.521
ng-nd	ng-nF	nh-ng	ni-ng
0.04702	0.02187	0.01997	
$\theta_{g,d}$	$\theta_{g,F(\Delta)}$	$\theta_{h,g}$	$\theta_{i,g}$
1.337	0.622 (0.0180)	0.568	
nC'-nt	ne-nC'	nF'-ne	ni-nF'
0.02490	0.01677	0.01904	
$\theta'_{C',t}$	$\theta'_{e,C'}$	$\theta'_{F',e}$	$\theta'_{i,F'}$
0.695	0.468	0.532	

機械的性質 Mechanical Properties	熱的性質 Thermal Properties
ヌープ硬さ Hk Knoop Hardness 409 (4)	転移点 Tg (°C) Transformation Point 477
ビッカース硬さ Hv Vickers Hardness 397	屈伏点 At (°C) Yielding Point 515
摩耗度 Ha Abrasion 330	線膨張係数 $\alpha (\times 10^{-7} \text{°C}^{-1})$ Thermal Expansion 93
ヤング率 E ($\times 10^8 \text{N} \cdot \text{m}^{-2}$) Young's Modulus 883	(-30~+70°C) 93 (+100~+300°C) 118
剛性率 G ($\times 10^8 \text{N} \cdot \text{m}^{-2}$) Modulus of Rigidity 351	熱伝導率 $\lambda (\text{W} \cdot \text{m}^{-1} \cdot \text{K}^{-1})$ Thermal Conductivity 0.812
ポアソン比 σ Poisson Ratio 0.256	比熱 Cp ($\text{J} \cdot \text{kg}^{-1} \cdot \text{K}^{-1}$) Specific Heat 598
化学的性質 Chemical Properties	その他 Other Properties
耐水性(粉末法) RW Water Resistance 1	泡 B Bubbles
耐酸性(粉末法) RA Acid Resistance 1	着色度 C Coloration (43)/38
耐久性(表面法) DW Chemical Durability 1	比重 S.g Specific Gravity 3.90
備考 Remarks Solarization	生産頻度 PF Production frequency C

内部透過率 τ Internal Transmittance		
$\lambda(\text{nm})$	3mm	10mm
270		
280		
290		
300		
310		
320		
330		
340		
350		
360	0.097	
370	0.261	0.011
380	0.546	0.133
390	0.744	0.374
400	0.851	0.585
420	0.939	0.810
440	0.968	0.899
460	0.980	0.935
480	0.986	0.956
500	0.990	0.968
550	0.996	0.988
600	0.998	0.995
650	0.998	0.995
700	0.999	0.996
800	0.998	0.996
1060	0.999	0.998
1500	0.999	0.997
2000	0.998	0.993

屈折率の温度係数 Temperature Coefficients of Refractive Index						
	(dn/dT)rel. ($\times 10^{-6} \text{°C}^{-1}$)			(dn/dT)abs. ($\times 10^{-6} \text{°C}^{-1}$)		
(°C)	1548.1	d	g	1548.1	d	g
-40/-20	-4.2	-2.1	1.7	-6.6	-4.6	-0.9
0/+20	-3.4	-1.1	3.2	-5.2	-3.0	1.3
+40/+60	-3.3	-0.8	3.9	-4.6	-2.2	2.4

663344 K-PSFn166	nd	1.66300	ν d	34.4	nF-nC	0.01926
	ne	1.66756	ν e	34.2	nF'-nC'	0.01954

屈折率 Refractive Indices		
n1548	1548.1	1.63446
n1309	1308.5	1.63809
nt	1014.0	1.64358
nA'	768.2	1.65122
nr	706.5	1.65426
nC	656.3	1.65737
nC'	643.9	1.65825
nD	589.3	1.66283
nd	587.6	1.66300
ne	546.1	1.66756
nF	486.1	1.67663
nF'	480.0	1.67779
ng	435.8	1.68801
nh	404.7	1.69803
ni	365.0	1.71654

分散式の常数 Constants of Dispersion Formula	
A0	2.6866768
A1	$-1.0882730 \times 10^{-2}$
A2	2.5595704×10^{-2}
A3	1.0483014×10^{-3}
A4	$-3.3897735 \times 10^{-5}$
A5	7.7058201×10^{-6}

dn/dTの分散常数 Constants of Dispersion dn/dT abs.	
D0	-6.43×10^{-6}
D1	1.03×10^{-8}
D2	-2.40×10^{-10}
E0	7.06×10^{-7}
E1	7.03×10^{-10}
$\lambda_{TK} (\mu m)$	0.275

部分分散および部分分散比 Partial Dispersions and Relative Partial Dispersions			
nC-nt	nC-nA'	nd-nC	ne-nC
0.01379	0.00615	0.00563	0.01019
$\theta_{C,t}$	$\theta_{C,A'}$	$\theta_{d,C}$	$\theta_{e,C}$
0.716	0.319	0.292	0.529
ng-nd	ng-nF	nh-ng	ni-ng
0.02501	0.01138	0.01002	0.02853
$\theta_{g,d}$	$\theta_{g,F(\Delta)}$	$\theta_{h,g}$	$\theta_{i,g}$
1.299	0.591 (0.0047)	0.520	1.481
nC'-nt	ne-nC'	nF'-ne	ni-nF'
0.01467	0.00931	0.01023	0.03875
$\theta'_{C',t}$	$\theta'_{e,C'}$	$\theta'_{F',e}$	$\theta'_{i,F'}$
0.751	0.476	0.524	1.983

機械的性質 Mechanical Properties	熱的性質 Thermal Properties
ヌープ硬さ Hk Knoop Hardness 396 (4)	転移点 Tg (°C) Transformation Point 488
ビッカース硬さ Hv Vickers Hardness 372	屈伏点 At (°C) Yielding Point 538
摩耗度 Ha Abrasion 370	線膨張係数 $\alpha (\times 10^{-7} \text{°C}^{-1})$ Thermal Expansion
ヤング率 E ($\times 10^8 \text{N} \cdot \text{m}^{-2}$) Young's Modulus 710	(-30~+70°C) 91 (+100~+300°C) 113
剛性率 G ($\times 10^8 \text{N} \cdot \text{m}^{-2}$) Modulus of Rigidity 281	熱伝導率 $\lambda (\text{W} \cdot \text{m}^{-1} \cdot \text{K}^{-1})$ Thermal Conductivity 0.720
ポアソン比 σ Poisson Ratio 0.263	比熱 Cp ($\text{J} \cdot \text{kg}^{-1} \cdot \text{K}^{-1}$) Specific Heat 675
化学的性質 Chemical Properties	その他 Other Properties
耐水性(粉末法) RW Water Resistance 1	泡 B Bubbles
耐酸性(粉末法) RA Acid Resistance 1	着色度 C Coloration 39/34
耐久性(表面法) DW Chemical Durability 1	比重 S.g Specific Gravity 3.11
備考 Remarks	生産頻度 PF Production frequency

内部透過率 τ Internal Transmittance		
$\lambda(\text{nm})$	3mm	10mm
270		
280		
290		
300		
310		
320		
330	0.145	
340	0.499	0.098
350	0.774	0.425
360	0.891	0.681
370	0.940	0.815
380	0.965	0.888
390	0.978	0.929
400	0.985	0.950
420	0.990	0.969
440	0.992	0.976
460	0.994	0.982
480	0.995	0.986
500	0.997	0.990
550	0.998	0.995
600	0.999	0.997
650	0.999	0.997
700	0.999	0.997
800	0.999	0.998
1060	0.999	0.998
1500	0.998	0.995
2000	0.986	0.954

屈折率の温度係数 Temperature Coefficients of Refractive Index						
	(dn/dT)rel. ($\times 10^{-6} \text{°C}^{-1}$)			(dn/dT)abs. ($\times 10^{-6} \text{°C}^{-1}$)		
(°C)	1548.1	d	g	1548.1	d	g
-40/-20	-2.4	-1.4	0.3	-4.6	-3.7	-2.0
0/+20	-1.7	-0.5	1.4	-3.3	-2.2	-0.4
+40/+60	-1.9	-0.7	1.4	-3.1	-2.0	0.0

851269 K-PSFn185	nd	1.85070	ν d	26.9	nF-nC	0.03161
	ne	1.85815	ν e	26.7	nF'-nC'	0.03215

屈折率 Refractive Indices		
n1548	1548.1	1.80782
n1309	1308.5	1.81258
nt	1014.0	1.82031
nA'	768.2	1.83191
nr	706.5	1.83668
nC	656.3	1.84162
nC'	643.9	1.84303
nD	589.3	1.85043
nd	587.6	1.85070
ne	546.1	1.85815
nF	486.1	1.87323
nF'	480.0	1.87518
ng	435.8	1.89261
nh	404.7	1.91005
ni	365.0	

分散式の常数 Constants of Dispersion Formula	
A0	3.2821266
A1	$-1.3764195 \times 10^{-2}$
A2	4.4857954×10^{-2}
A3	2.0290189×10^{-3}
A4	$-1.5619433 \times 10^{-5}$
A5	1.6072643×10^{-5}

dn/dTの分散常数 Constants of Dispersion dn/dT abs.	
D0	-7.95×10^{-6}
D1	1.17×10^{-8}
D2	-2.57×10^{-10}
E0	8.33×10^{-7}
E1	1.16×10^{-9}
$\lambda_{TK} (\mu m)$	0.300

部分分散および部分分散比 Partial Dispersions and Relative Partial Dispersions			
nC-nt	nC-nA'	nd-nC	ne-nC
0.02131	0.00971	0.00908	0.01653
$\theta_{C,t}$	$\theta_{C,A'}$	$\theta_{d,C}$	$\theta_{e,C}$
0.674	0.307	0.287	0.523
ng-nd	ng-nF	nh-ng	ni-ng
0.04191	0.01938	0.01744	
$\theta_{g,d}$	$\theta_{g,F(\Delta)}$	$\theta_{h,g}$	$\theta_{i,g}$
1.326	0.613 (0.0141)	0.552	
nC'-nt	ne-nC'	nF'-ne	ni-nF'
0.02272	0.01512	0.01703	
$\theta_{C',t}$	$\theta_{e,C'}$	$\theta_{F',e}$	$\theta_{i,F'}$
0.707	0.470	0.530	

機械的性質 Mechanical Properties	熱的性質 Thermal Properties
ヌープ硬さ Hk Knoop Hardness 423 (4)	転移点 Tg (°C) Transformation Point 537
ビッカース硬さ Hv Vickers Hardness 427	屈伏点 At (°C) Yielding Point 585
摩耗度 Ha Abrasion 280	線膨張係数 $\alpha (\times 10^{-7} \text{°C}^{-1})$ Thermal Expansion 85
ヤング率 E ($\times 10^8 \text{N} \cdot \text{m}^{-2}$) Young's Modulus 910	(-30~+70°C) 85 (+100~+300°C) 101
剛性率 G ($\times 10^8 \text{N} \cdot \text{m}^{-2}$) Modulus of Rigidity 356	熱伝導率 $\lambda (\text{W} \cdot \text{m}^{-1} \cdot \text{K}^{-1})$ Thermal Conductivity 0.743
ポアソン比 σ Poisson Ratio 0.278	比熱 Cp ($\text{J} \cdot \text{kg}^{-1} \cdot \text{K}^{-1}$) Specific Heat 529
化学的性質 Chemical Properties	その他 Other Properties
耐水性(粉末法) RW Water Resistance 1	泡 B Bubbles
耐酸性(粉末法) RA Acid Resistance 1	着色度 C Coloration (40)/36
耐久性(表面法) DW Chemical Durability 1	比重 S.g Specific Gravity 4.17
備考 Remarks Solarization	生産頻度 PF Production frequency

内部透過率 τ Internal Transmittance		
$\lambda(\text{nm})$	3mm	10mm
270		
280		
290		
300		
310		
320		
330		
340		
350	0.128	
360	0.431	0.060
370	0.742	0.370
380	0.893	0.685
390	0.944	0.827
400	0.965	0.888
420	0.981	0.938
440	0.987	0.957
460	0.990	0.968
480	0.992	0.975
500	0.994	0.980
550	0.997	0.990
600	0.998	0.995
650	0.999	0.996
700	0.999	0.998
800	0.999	0.998
1060	0.999	0.999
1500	0.999	0.997
2000	0.996	0.987

屈折率の温度係数 Temperature Coefficients of Refractive Index						
	(dn/dT)rel. ($\times 10^{-6} \text{°C}^{-1}$)			(dn/dT)abs. ($\times 10^{-6} \text{°C}^{-1}$)		
(°C)	1548.1	d	g	1548.1	d	g
-40/-20	-4.3	-2.9	0.0	-6.7	-5.4	-2.6
0/+20	-3.2	-1.5	1.8	-5.0	-3.3	-0.1
+40/+60	-3.4	-1.5	2.2	-4.7	-2.9	0.7

※レンズ成形難易度が特に高い硝材です。

Optical Glass for Precision Molding

Moldability of this glass material is classified as "especially difficult".

K-PSFn190

905215 K-PSFn190	nd	1.90460	ν d	21.5	nF-nC	0.04209
	ne	1.91448	ν e	21.3	nF'-nC'	0.04289

屈折率 Refractive Indices		
n1548	1548.1	1.84993
n1309	1308.5	1.85568
nt	1014.0	1.86525
nA'	768.2	1.88004
nr	706.5	1.88622
nC	656.3	1.89266
nC'	643.9	1.89451
nD	589.3	1.90424
nd	587.6	1.90460
ne	546.1	1.91448
nF	486.1	1.93475
nF'	480.0	1.93740
ng	435.8	1.96136
nh	404.7	1.98595
ni	365.0	

分散式の常数 Constants of Dispersion Formula	
A0	3.4367173
A1	$-1.6285824 \times 10^{-2}$
A2	5.7270178×10^{-2}
A3	3.8227479×10^{-3}
A4	$-1.9197328 \times 10^{-4}$
A5	4.4106437×10^{-5}

dn/dTの分散常数 Constants of Dispersion dn/dT abs.	
D0	-2.29×10^{-6}
D1	1.82×10^{-8}
D2	-2.22×10^{-10}
E0	1.06×10^{-6}
E1	1.67×10^{-9}
$\lambda_{TK} (\mu m)$	0.321

部分分散および部分分散比 Partial Dispersions and Relative Partial Dispersions			
nC-nt	nC-nA'	nd-nC	ne-nC
0.02741	0.01262	0.01194	0.02182
$\theta_{C,t}$	$\theta_{C,A'}$	$\theta_{d,C}$	$\theta_{e,C}$
0.651	0.300	0.284	0.518
ng-nd	ng-nF	nh-ng	ni-ng
0.05676	0.02661	0.02459	
$\theta_{g,d}$	$\theta_{g,F(\Delta)}$	$\theta_{h,g}$	$\theta_{i,g}$
1.349	0.632 (0.0240)	0.584	
nC'-nt	ne-nC'	nF'-ne	ni-nF'
0.02926	0.01997	0.02292	
$\theta'_{C',t}$	$\theta'_{e,C'}$	$\theta'_{F',e}$	$\theta'_{i,F'}$
0.682	0.466	0.534	

機械的性質 Mechanical Properties	熱的性質 Thermal Properties
ヌープ硬さ Hk Knoop Hardness 455 (5)	転移点 Tg (°C) Transformation Point 497
ビッカース硬さ Hv Vickers Hardness 406	屈伏点 At (°C) Yielding Point 551
摩耗度 Ha Abrasion 280	線膨張係数 $\alpha (\times 10^{-7} \text{°C}^{-1})$ Thermal Expansion 77
ヤング率 E ($\times 10^8 \text{N} \cdot \text{m}^{-2}$) Young's Modulus 644	(-30~+70°C) 77 (+100~+300°C) 93
剛性率 G ($\times 10^8 \text{N} \cdot \text{m}^{-2}$) Modulus of Rigidity 257	熱伝導率 $\lambda (\text{W} \cdot \text{m}^{-1} \cdot \text{K}^{-1})$ Thermal Conductivity 0.827
ポアソン比 σ Poisson Ratio 0.255	比熱 Cp ($\text{J} \cdot \text{kg}^{-1} \cdot \text{K}^{-1}$) Specific Heat 544
化学的性質 Chemical Properties	その他 Other Properties
耐水性(粉末法) RW Water Resistance 1	泡 B Bubbles
耐酸性(粉末法) RA Acid Resistance 1	着色度 C Coloration (43)/39
耐久性(表面法) DW Chemical Durability 1	比重 S.g Specific Gravity 4.15
備考 Remarks Solarization	生産頻度 PF Production frequency C

内部透過率 τ Internal Transmittance		
$\lambda (\text{nm})$	3mm	10mm
270		
280		
290		
300		
310		
320		
330		
340		
350		
360		
370	0.095	
380	0.299	0.018
390	0.596	0.178
400	0.788	0.453
420	0.930	0.786
440	0.969	0.901
460	0.982	0.942
480	0.988	0.962
500	0.991	0.973
550	0.996	0.989
600	0.998	0.994
650	0.998	0.996
700	0.998	0.996
800	0.999	0.997
1060	0.999	0.999
1500	0.998	0.996
2000	0.993	0.978

屈折率の温度係数 Temperature Coefficients of Refractive Index						
	(dn/dT)rel. ($\times 10^{-6} \text{°C}^{-1}$)			(dn/dT)abs. ($\times 10^{-6} \text{°C}^{-1}$)		
(°C)	1548.1	d	g	1548.1	d	g
-40/-20	-1.1	1.1	6.0	-3.5	-1.4	3.3
0/+20	0.3	3.0	8.6	-1.5	1.0	6.6
+40/+60	0.6	3.5	9.9	-0.8	2.1	8.4

※レンズ成形難易度が特に高い硝材です。

Optical Glass for Precision Molding

Moldability of this glass material is classified as "especially difficult".

K-PSFn214P

144178 K-PSFn214P	nd	2.14400	ν d	17.8	nF-nC	0.06443
	ne	2.15905	ν e	17.6	nF'-nC'	0.06585

屈折率 Refractive Indices		
n1548	1548.1	2.06810
n1309	1308.5	2.07451
nt	1014.0	2.08666
nA'	768.2	2.10750
nr	706.5	2.11653
nC	656.3	2.12607
nC'	643.9	2.12882
nD	589.3	2.14345
nd	587.6	2.14400
ne	546.1	2.15905
nF	486.1	2.19050
nF'	480.0	2.19467
ng	435.8	2.23296
nh	404.7	
ni	365.0	

分散式の常数 Constants of Dispersion Formula	
A0	4.2694007
A1	$-1.3941316 \times 10^{-2}$
A2	9.5671794×10^{-2}
A3	6.5505527×10^{-3}
A4	$-2.8211750 \times 10^{-4}$
A5	9.8041281×10^{-5}

dn/dTの分散常数 Constants of Dispersion dn/dT abs.	
D0	1.59×10^{-5}
D1	3.02×10^{-8}
D2	-1.86×10^{-10}
E0	3.53×10^{-6}
E1	1.81×10^{-9}
$\lambda_{TK} (\mu m)$	0.287

部分分散および部分分散比 Partial Dispersions and Relative Partial Dispersions			
nC-nt	nC-nA'	nd-nC	ne-nC
0.03941	0.01857	0.01793	0.03298
$\theta_{C,t}$	$\theta_{C,A'}$	$\theta_{d,C}$	$\theta_{e,C}$
0.612	0.288	0.278	0.512
ng-nd	ng-nF	nh-ng	ni-ng
0.08896	0.04246		
$\theta_{g,d}$	$\theta_{g,F(\Delta)}$	$\theta_{h,g}$	$\theta_{i,g}$
1.381	0.659 (0.0448)		
nC'-nt	ne-nC'	nF'-ne	ni-nF'
0.04216	0.03023	0.03562	
$\theta'_{C',t}$	$\theta'_{e,C'}$	$\theta'_{F',e}$	$\theta'_{i,F'}$
0.640	0.459	0.541	

機械的性質 Mechanical Properties	熱的性質 Thermal Properties
ヌープ硬さ Hk Knoop Hardness 416 (4)	転移点 Tg (°C) Transformation Point 427
ビッカース硬さ Hv Vickers Hardness 409	屈伏点 At (°C) Yielding Point 452
摩耗度 Ha Abrasion 300	線膨張係数 $\alpha (\times 10^{-7} \text{°C}^{-1})$ Thermal Expansion 81
ヤング率 E ($\times 10^8 \text{N} \cdot \text{m}^{-2}$) Young's Modulus 776	(-30~+70°C) 81 (+100~+300°C) 99
剛性率 G ($\times 10^8 \text{N} \cdot \text{m}^{-2}$) Modulus of Rigidity 305	熱伝導率 $\lambda (\text{W} \cdot \text{m}^{-1} \cdot \text{K}^{-1})$ Thermal Conductivity 0.602
ポアソン比 σ Poisson Ratio 0.272	比熱 Cp ($\text{J} \cdot \text{kg}^{-1} \cdot \text{K}^{-1}$) Specific Heat 309
化学的性質 Chemical Properties	その他 Other Properties
耐水性(粉末法) RW Water Resistance 1	泡 B Bubbles
耐酸性(粉末法) RA Acid Resistance 3	着色度 C Coloration (52)/42
耐久性(表面法) DW Chemical Durability 1	比重 S.g Specific Gravity 7.07
備考 Remarks	生産頻度 PF Production frequency

内部透過率 τ Internal Transmittance		
$\lambda (\text{nm})$	3mm	10mm
270		
280		
290		
300		
310		
320		
330		
340		
350		
360		
370		
380		
390		
400		
420	0.376	0.038
440	0.713	0.325
460	0.844	0.568
480	0.906	0.720
500	0.947	0.835
550	0.991	0.971
600	0.995	0.986
650	0.996	0.986
700	0.995	0.986
800	0.997	0.989
1060	0.999	0.998
1500	0.999	0.999
2000	0.994	0.982

屈折率の温度係数						
Temperature Coefficients of Refractive Index						
	(dn/dT)rel. (×10 ⁻⁶ °C ⁻¹)			(dn/dT)abs. (×10 ⁻⁶ °C ⁻¹)		
(°C)	1548.1	d	g	1548.1	d	g
-40/-20	13.0	23.2		10.3	20.3	
0/+20	15.3	26.1		13.3	23.9	
+40/+60	16.5	27.7		14.9	26.1	

507705 K-PG325	nd	1.50670	ν d	70.5	nF-nC	0.00719
	ne	1.50841	ν e	70.2	nF'-nC'	0.00724

屈折率 Refractive Indices		
n1548	1548.1	1.49349
n1309	1308.5	1.49564
nt	1014.0	1.49854
nA'	768.2	1.50199
nr	706.5	1.50325
nC	656.3	1.50450
nC'	643.9	1.50485
nD	589.3	1.50663
nd	587.6	1.50670
ne	546.1	1.50841
nF	486.1	1.51169
nF'	480.0	1.51209
ng	435.8	1.51556
nh	404.7	1.51875
ni	365.0	1.52417

分散式の常数 Constants of Dispersion Formula	
A0	2.2433502
A1	$-7.0443238 \times 10^{-3}$
A2	9.5932746×10^{-3}
A3	1.9364616×10^{-4}
A4	$-9.8585539 \times 10^{-6}$
A5	6.1088785×10^{-7}

dn/dTの分散常数 Constants of Dispersion dn/dT abs.	
D0	-1.86×10^{-5}
D1	-3.20×10^{-9}
D2	-2.53×10^{-11}
E0	4.98×10^{-7}
E1	8.02×10^{-10}
$\lambda_{TK} (\mu m)$	0.172

部分分散および部分分散比 Partial Dispersions and Relative Partial Dispersions			
nC-nt	nC-nA'	nd-nC	ne-nC
0.00596	0.00251	0.00220	0.00391
$\theta_{C,t}$	$\theta_{C,A'}$	$\theta_{d,C}$	$\theta_{e,C}$
0.829	0.349	0.306	0.544
ng-nd	ng-nF	nh-ng	ni-ng
0.00886	0.00387	0.00319	0.00861
$\theta_{g,d}$	$\theta_{g,F(\Delta)}$	$\theta_{h,g}$	$\theta_{i,g}$
1.232	0.538 (0.0124)	0.444	1.197
nC'-nt	ne-nC'	nF'-ne	ni-nF'
0.00631	0.00356	0.00368	0.01208
$\theta_{C',t}$	$\theta_{e,C'}$	$\theta_{F',e}$	$\theta_{i,F'}$
0.872	0.492	0.508	1.669

機械的性質 Mechanical Properties	熱的性質 Thermal Properties
ヌープ硬さ Hk Knoop Hardness 352 (4)	転移点 Tg (°C) Transformation Point 288
ビッカース硬さ Hv Vickers Hardness 376	屈伏点 At (°C) Yielding Point 317
摩耗度 Ha Abrasion 800	線膨張係数 $\alpha (\times 10^{-7} \text{°C}^{-1})$ Thermal Expansion
ヤング率 E ($\times 10^8 \text{N} \cdot \text{m}^{-2}$) Young's Modulus 642	(-30~+70°C) 143 (+50~+200°C) 165
剛性率 G ($\times 10^8 \text{N} \cdot \text{m}^{-2}$) Modulus of Rigidity 254	熱伝導率 $\lambda (\text{W} \cdot \text{m}^{-1} \cdot \text{K}^{-1})$ Thermal Conductivity 0.748
ポアソン比 σ Poisson Ratio 0.265	比熱 Cp ($\text{J} \cdot \text{kg}^{-1} \cdot \text{K}^{-1}$) Specific Heat 817
化学的性質 Chemical Properties	その他 Other Properties
耐水性(粉末法) RW Water Resistance 1	泡 B Bubbles B
耐酸性(粉末法) RA Acid Resistance 5	着色度 C Coloration 34/30
耐久性(表面法) DW Chemical Durability 1	比重 S.g Specific Gravity 3.00
備考 Remarks	生産頻度 PF Production frequency C

内部透過率 τ Internal Transmittance		
$\lambda(\text{nm})$	3mm	10mm
270		
280	0.124	
290	0.255	0.011
300	0.438	0.064
310	0.638	0.225
320	0.801	0.479
330	0.904	0.716
340	0.958	0.867
350	0.981	0.938
360	0.990	0.968
370	0.994	0.981
380	0.996	0.988
390	0.997	0.990
400	0.997	0.991
420	0.997	0.991
440	0.997	0.993
460	0.998	0.995
480	0.998	0.996
500	0.999	0.998
550	0.999	0.999
600	0.999	0.998
650	0.999	0.997
700	0.999	0.998
800	0.999	0.998
1060	0.999	0.999
1500	0.999	0.999
2000	0.997	0.991

屈折率の温度係数 Temperature Coefficients of Refractive Index						
	(dn/dT)rel. ($\times 10^{-6} \text{°C}^{-1}$)			(dn/dT)abs. ($\times 10^{-6} \text{°C}^{-1}$)		
(°C)	1548.1	d	g	1548.1	d	g
-40/-20	-5.5	-5.2	-4.7	-7.5	-7.2	-6.8
0/+20	-6.1	-5.7	-5.1	-7.6	-7.2	-6.6
+40/+60	-6.5	-6.1	-5.4	-7.7	-7.2	-6.6

543629 K-PG375	nd	1.54250	ν d	62.9	nF-nC	0.00862
	ne	1.54455	ν e	62.6	nF'-nC'	0.00870

屈折率 Refractive Indices		
n1548	1548.1	1.52721
n1309	1308.5	1.52960
nt	1014.0	1.53287
nA'	768.2	1.53688
nr	706.5	1.53838
nC	656.3	1.53987
nC'	643.9	1.54029
nD	589.3	1.54242
nd	587.6	1.54250
ne	546.1	1.54455
nF	486.1	1.54849
nF'	480.0	1.54899
ng	435.8	1.55318
nh	404.7	1.55707
ni	365.0	1.56369

分散式の常数 Constants of Dispersion Formula	
A0	2.3459430
A1	$-7.7317211 \times 10^{-3}$
A2	1.1783664×10^{-2}
A3	2.5239185×10^{-4}
A4	$-1.2352344 \times 10^{-5}$
A5	8.7540057×10^{-7}

dn/dTの分散常数 Constants of Dispersion dn/dT abs.	
D0	-1.51×10^{-5}
D1	1.45×10^{-9}
D2	-9.02×10^{-11}
E0	5.44×10^{-7}
E1	3.99×10^{-10}
$\lambda_{TK} (\mu m)$	0.176

部分分散および部分分散比 Partial Dispersions and Relative Partial Dispersions			
nC-nt	nC-nA'	nd-nC	ne-nC
0.00700	0.00299	0.00263	0.00468
θ C,t	θ C,A'	θ d,C	θ e,C
0.812	0.347	0.305	0.543
ng-nd	ng-nF	nh-ng	ni-ng
0.01068	0.00469	0.00389	0.01051
θ g,d	θ g,F(Δ)	θ h,g	θ i,g
1.239	0.544 (0.0056)	0.451	1.219
nC'-nt	ne-nC'	nF'-ne	ni-nF'
0.00742	0.00426	0.00444	0.01470
θ 'C',t	θ 'e,C'	θ 'F',e	θ 'i,F'
0.853	0.490	0.510	1.690

機械的性質 Mechanical Properties	熱的性質 Thermal Properties
ヌープ硬さ Hk Knoop Hardness 368 (4)	転移点 Tg (°C) Transformation Point 344
ビッカース硬さ Hv Vickers Hardness 428	屈伏点 At (°C) Yielding Point 367
摩耗度 Ha Abrasion 620	線膨張係数 α ($\times 10^{-7} \text{°C}^{-1}$) Thermal Expansion
ヤング率 E ($\times 10^8 \text{N} \cdot \text{m}^{-2}$) Young's Modulus 625	(-30~+70°C) 129 (+50~+250°C) 160
剛性率 G ($\times 10^8 \text{N} \cdot \text{m}^{-2}$) Modulus of Rigidity 249	熱伝導率 λ ($\text{W} \cdot \text{m}^{-1} \cdot \text{K}^{-1}$) Thermal Conductivity 0.688
ポアソン比 σ Poisson Ratio 0.252	比熱 Cp ($\text{J} \cdot \text{kg}^{-1} \cdot \text{K}^{-1}$) Specific Heat 757
化学的性質 Chemical Properties	その他 Other Properties
耐水性(粉末法) RW Water Resistance 1	泡 B Bubbles
耐酸性(粉末法) RA Acid Resistance 3	着色度 C Coloration 36/31
耐久性(表面法) DW Chemical Durability 2	比重 S.g Specific Gravity 2.90
備考 Remarks	生産頻度 PF Production frequency C

内部透過率 τ Internal Transmittance		
λ (nm)	3mm	10mm
270		
280	0.237	
290	0.311	0.020
300	0.432	0.061
310	0.580	0.163
320	0.726	0.344
330	0.839	0.557
340	0.916	0.747
350	0.958	0.868
360	0.980	0.936
370	0.990	0.968
380	0.995	0.983
390	0.997	0.990
400	0.997	0.992
420	0.997	0.992
440	0.997	0.992
460	0.998	0.993
480	0.999	0.996
500	0.999	0.997
550	0.999	0.999
600	0.999	0.997
650	0.998	0.995
700	0.999	0.996
800	0.999	0.996
1060	0.999	0.999
1500	0.998	0.996
2000	0.978	0.931

屈折率の温度係数 Temperature Coefficients of Refractive Index						
	(dn/dT)rel. ($\times 10^{-6} \text{°C}^{-1}$)			(dn/dT)abs. ($\times 10^{-6} \text{°C}^{-1}$)		
(°C)	1548.1	d	g	1548.1	d	g
-40/-20	-4.8	-4.3	-3.7	-6.9	-6.4	-5.8
0/+20	-5.0	-4.5	-3.8	-6.5	-6.0	-5.4
+40/+60	-5.4	-4.8	-4.1	-6.6	-6.0	-5.3

487704 K-FK5	nd	1.48749	ν d	70.4	nF-nC	0.00692
	ne	1.48914	ν e	70.2	nF'-nC'	0.00697

屈折率 Refractive Indices		
n1548	1548.1	1.47291
n1309	1308.5	1.47568
nt	1014.0	1.47913
nA'	768.2	1.48282
nr	706.5	1.48410
nC	656.3	1.48535
nC'	643.9	1.48569
nD	589.3	1.48743
nd	587.6	1.48749
ne	546.1	1.48914
nF	486.1	1.49227
nF'	480.0	1.49266
ng	435.8	1.49593
nh	404.7	1.49894
ni	365.0	1.50401

分散式の常数 Constants of Dispersion Formula	
A0	2.1891970
A1	$-9.7642231 \times 10^{-3}$
A2	8.6917382×10^{-3}
A3	2.3646623×10^{-4}
A4	$-1.7699987 \times 10^{-5}$
A5	9.6989631×10^{-7}

dn/dTの分散常数 Constants of Dispersion dn/dT abs.	
D0	-7.46×10^{-6}
D1	1.15×10^{-8}
D2	-2.45×10^{-10}
E0	3.01×10^{-7}
E1	2.40×10^{-9}
$\lambda_{TK} (\mu m)$	0.169

部分分散および部分分散比 Partial Dispersions and Relative Partial Dispersions			
nC-nt	nC-nA'	nd-nC	ne-nC
0.00622	0.00253	0.00214	0.00379
θ C,t	θ C,A'	θ d,C	θ e,C
0.899	0.366	0.309	0.548
ng-nd	ng-nF	nh-ng	ni-ng
0.00844	0.00366	0.00301	0.00808
θ g,d	θ g,F(Δ)	θ h,g	θ i,g
1.220	0.529 (0.0032)	0.435	1.168
nC'-nt	ne-nC'	nF'-ne	ni-nF'
0.00656	0.00345	0.00352	0.01135
θ 'C',t	θ 'e,C'	θ 'F',e	θ 'i,F'
0.941	0.495	0.505	1.628

機械的性質 Mechanical Properties	熱的性質 Thermal Properties
ヌープ硬さ Hk Knoop Hardness 531 (5)	転移点 Tg (°C) Transformation Point 465
ビッカース硬さ Hv Vickers Hardness 582	屈伏点 At (°C) Yielding Point 545
摩耗度 Ha Abrasion 110	線膨張係数 α ($\times 10^{-7} \text{°C}^{-1}$) Thermal Expansion
ヤング率 E ($\times 10^8 \text{N} \cdot \text{m}^{-2}$) Young's Modulus 605	(-30~+70°C) 88 (+100~+300°C) 98
剛性率 G ($\times 10^8 \text{N} \cdot \text{m}^{-2}$) Modulus of Rigidity 244	熱伝導率 λ ($\text{W} \cdot \text{m}^{-1} \cdot \text{K}^{-1}$) Thermal Conductivity
ポアソン比 σ Poisson Ratio 0.241	比熱 Cp ($\text{J} \cdot \text{kg}^{-1} \cdot \text{K}^{-1}$) Specific Heat
化学的性質 Chemical Properties	その他 Other Properties
耐水性(粉末法) RW Water Resistance 4	泡 B Bubbles
耐酸性(粉末法) RA Acid Resistance 5	着色度 C Coloration 29/26
耐久性(表面法) DW Chemical Durability 1	比重 S.g Specific Gravity 2.45
備考 Remarks	生産頻度 PF Production frequency

内部透過率 τ Internal Transmittance		
λ (nm)	10mm	25mm
270	0.324	0.060
280	0.625	0.309
290	0.833	0.633
300	0.929	0.832
310	0.968	0.923
320	0.977	0.944
330	0.982	0.957
340	0.985	0.964
350	0.988	0.971
360	0.990	0.975
370	0.990	0.975
380	0.990	0.975
390	0.990	0.975
400	0.990	0.975
420	0.991	0.978
440	0.991	0.978
460	0.991	0.978
480	0.991	0.978
500	0.991	0.978
550	0.994	0.985
600	0.995	0.989
650	0.995	0.989
700	0.997	0.992
800	0.998	0.996
1060	0.998	0.996
1500	0.978	0.947
2000	0.968	0.923

屈折率の温度係数 Temperature Coefficients of Refractive Index						
	(dn/dT)rel. ($\times 10^{-6} \text{°C}^{-1}$)			(dn/dT)abs. ($\times 10^{-6} \text{°C}^{-1}$)		
(°C)	1548.1	d	g	1548.1	d	g
-40/-20	-2.2	-2.2	-2.1	-4.1	-4.2	-4.2
0/+20	-1.6	-1.4	-1.0	-3.0	-2.8	-2.6
+40/+60	-1.8	-1.3	-0.8	-2.9	-2.5	-1.9

516641 K-BK7	nd	1.51633	ν d	64.1	nF-nC	0.00806
	ne	1.51825	ν e	63.8	nF'-nC'	0.00812

屈折率 Refractive Indices		
n1548	1548.1	1.50029
n1309	1308.5	1.50317
nt	1014.0	1.50686
nA'	768.2	1.51097
nr	706.5	1.51242
nC	656.3	1.51385
nC'	643.9	1.51425
nD	589.3	1.51626
nd	587.6	1.51633
ne	546.1	1.51825
nF	486.1	1.52191
nF'	480.0	1.52237
ng	435.8	1.52622
nh	404.7	1.52978
ni	365.0	1.53584

分散式の常数 Constants of Dispersion Formula	
A0	2.2705778
A1	$-1.0059376 \times 10^{-2}$
A2	1.0414999×10^{-2}
A3	2.8872517×10^{-4}
A4	$-2.2214495 \times 10^{-5}$
A5	1.4258559×10^{-6}

dn/dTの分散常数 Constants of Dispersion dn/dT abs.	
D0	6.84×10^{-7}
D1	2.05×10^{-8}
D2	-1.55×10^{-10}
E0	4.18×10^{-7}
E1	2.74×10^{-10}
$\lambda_{TK} (\mu m)$	0.178

部分分散および部分分散比 Partial Dispersions and Relative Partial Dispersions			
nC-nt	nC-nA'	nd-nC	ne-nC
0.00699	0.00288	0.00248	0.00440
$\theta_{C,t}$	$\theta_{C,A'}$	$\theta_{d,C}$	$\theta_{e,C}$
0.867	0.357	0.308	0.546
ng-nd	ng-nF	nh-ng	ni-ng
0.00989	0.00431	0.00356	0.00962
$\theta_{g,d}$	$\theta_{g,F(\Delta)}$	$\theta_{h,g}$	$\theta_{i,g}$
1.227	0.535 (-0.0014)	0.442	1.194
nC'-nt	ne-nC'	nF'-ne	ni-nF'
0.00739	0.00400	0.00412	0.01347
$\theta_{C',t}$	$\theta_{e,C'}$	$\theta_{F',e}$	$\theta_{i,F'}$
0.910	0.493	0.507	1.659

機械的性質 Mechanical Properties	熱的性質 Thermal Properties
ヌープ硬さ Hk Knoop Hardness 589 (6)	転移点 Tg (°C) Transformation Point 572
ビッカース硬さ Hv Vickers Hardness 587	屈伏点 At (°C) Yielding Point 630
摩耗度 Ha Abrasion 100	線膨張係数 $\alpha (\times 10^{-7} \text{°C}^{-1})$ Thermal Expansion
ヤング率 E ($\times 10^8 \text{N} \cdot \text{m}^{-2}$) Young's Modulus 799	(-30~+70°C) 63 (+100~+300°C) 85
剛性率 G ($\times 10^8 \text{N} \cdot \text{m}^{-2}$) Modulus of Rigidity 330	熱伝導率 $\lambda (\text{W} \cdot \text{m}^{-1} \cdot \text{K}^{-1})$ Thermal Conductivity
ポアソン比 σ Poisson Ratio 0.209	比熱 Cp ($\text{J} \cdot \text{kg}^{-1} \cdot \text{K}^{-1}$) Specific Heat
化学的性質 Chemical Properties	その他 Other Properties
耐水性(粉末法) RW Water Resistance 2	泡 B Bubbles
耐酸性(粉末法) RA Acid Resistance 1	着色度 C Coloration 34/29
耐久性(表面法) DW Chemical Durability 1	比重 S.g Specific Gravity 2.52
備考 Remarks	生産頻度 PF Production frequency

内部透過率 τ Internal Transmittance		
$\lambda(\text{nm})$	3mm	10mm
270	0.319	0.022
280	0.444	0.067
290	0.656	0.245
300	0.815	0.507
310	0.908	0.725
320	0.955	0.860
330	0.978	0.929
340	0.989	0.964
350	0.993	0.980
360	0.996	0.988
370	0.997	0.992
380	0.998	0.993
390	0.998	0.996
400	0.999	0.996
420	0.998	0.996
440	0.998	0.995
460	0.998	0.995
480	0.998	0.995
500	0.999	0.997
550	0.999	0.997
600	0.999	0.997
650	0.999	0.997
700	0.999	0.998
800	0.999	0.998
1060	0.999	0.999
1500	0.999	0.996
2000	0.987	0.959

屈折率の温度係数 Temperature Coefficients of Refractive Index						
	(dn/dT)rel. ($\times 10^{-6} \text{°C}^{-1}$)			(dn/dT)abs. ($\times 10^{-6} \text{°C}^{-1}$)		
(°C)	1548.1	d	g	1548.1	d	g
-40/-20	1.0	1.5	2.1	-1.0	-0.5	0.0
0/+20	1.6	2.2	2.8	0.2	0.7	1.2
+40/+60	1.8	2.4	3.0	0.7	1.2	1.8

559539 K-BPG2	nd	1.55920	ν d	53.9	nF-nC	0.01038
	ne	1.56166	ν e	53.6	nF'-nC'	0.01047

屈折率 Refractive Indices		
n1548	1548.1	1.54117
n1309	1308.5	1.54396
nt	1014.0	1.54777
nA'	768.2	1.55251
nr	706.5	1.55429
nC	656.3	1.55606
nC'	643.9	1.55656
nD	589.3	1.55910
nd	587.6	1.55920
ne	546.1	1.56166
nF	486.1	1.56644
nF'	480.0	1.56703
ng	435.8	1.57215
nh	404.7	1.57696
ni	365.0	1.58525

分散式の常数 Constants of Dispersion Formula	
A0	2.3909284
A1	$-9.0241173 \times 10^{-3}$
A2	1.4036614×10^{-2}
A3	3.3108428×10^{-4}
A4	$-9.9852290 \times 10^{-6}$
A5	1.1070906×10^{-6}

dn/dTの分散常数 Constants of Dispersion dn/dT abs.	
D0	6.45×10^{-6}
D1	1.89×10^{-8}
D2	-2.11×10^{-10}
E0	5.53×10^{-7}
E1	8.99×10^{-10}
$\lambda_{TK} (\mu m)$	0.207

部分分散および部分分散比 Partial Dispersions and Relative Partial Dispersions			
nC-nt	nC-nA'	nd-nC	ne-nC
0.00829	0.00355	0.00314	0.00560
$\theta_{C,t}$	$\theta_{C,A'}$	$\theta_{d,C}$	$\theta_{e,C}$
0.799	0.342	0.303	0.539
ng-nd	ng-nF	nh-ng	ni-ng
0.01295	0.00571	0.00481	0.01310
$\theta_{g,d}$	$\theta_{g,F(\Delta)}$	$\theta_{h,g}$	$\theta_{i,g}$
1.248	0.550 (-0.0035)	0.463	1.262
nC'-nt	ne-nC'	nF'-ne	ni-nF'
0.00879	0.00510	0.00537	0.01822
$\theta_{C',t}$	$\theta_{e,C'}$	$\theta_{F',e}$	$\theta_{i,F'}$
0.840	0.487	0.513	1.740

機械的性質 Mechanical Properties	熱的性質 Thermal Properties
ヌープ硬さ Hk Knoop Hardness 573 (6)	転移点 Tg (°C) Transformation Point 608
ビッカース硬さ Hv Vickers Hardness 562	屈伏点 At (°C) Yielding Point 661
摩耗度 Ha Abrasion 90	線膨張係数 $\alpha (\times 10^{-7} \text{°C}^{-1})$ Thermal Expansion
ヤング率 E ($\times 10^8 \text{N} \cdot \text{m}^{-2}$) Young's Modulus 799	(-30~+70°C) 60 (+100~+300°C) 74
剛性率 G ($\times 10^8 \text{N} \cdot \text{m}^{-2}$) Modulus of Rigidity 323	熱伝導率 $\lambda (\text{W} \cdot \text{m}^{-1} \cdot \text{K}^{-1})$ Thermal Conductivity
ポアソン比 σ Poisson Ratio 0.238	比熱 Cp ($\text{J} \cdot \text{kg}^{-1} \cdot \text{K}^{-1}$) Specific Heat
化学的性質 Chemical Properties	その他 Other Properties
耐水性(粉末法) RW Water Resistance 1	泡 B Bubbles
耐酸性(粉末法) RA Acid Resistance 1	着色度 C Coloration 37/33
耐久性(表面法) DW Chemical Durability 1	比重 S.g Specific Gravity 2.72
備考 Remarks	生産頻度 PF Production frequency A

内部透過率 τ Internal Transmittance		
$\lambda (\text{nm})$	10mm	25mm
270		
280		
290		
300		
310		
320		
330	0.013	
340	0.223	0.023
350	0.540	0.214
360	0.762	0.507
370	0.873	0.714
380	0.929	0.832
390	0.957	0.896
400	0.971	0.930
420	0.980	0.950
440	0.982	0.957
460	0.985	0.964
480	0.988	0.971
500	0.988	0.971
550	0.991	0.978
600	0.992	0.982
650	0.992	0.982
700	0.995	0.989
800	0.995	0.989
1060	0.998	0.996
1500	0.998	0.996
2000	0.982	0.957

屈折率の温度係数 Temperature Coefficients of Refractive Index						
	(dn/dT)rel. ($\times 10^{-6} \text{°C}^{-1}$)			(dn/dT)abs. ($\times 10^{-6} \text{°C}^{-1}$)		
(°C)	1548.1	d	g	1548.1	d	g
-40/-20	3.5	4.2	5.0	1.4	2.1	2.9
0/+20	4.3	5.1	6.1	2.8	3.6	4.5
+40/+60	4.4	5.3	6.4	3.2	4.1	5.2

618634 K-PSK _n 2	nd	1.61800	ν d	63.4	nF-nC	0.00975
	ne	1.62033	ν e	63.0	nF'-nC'	0.00984

屈折率 Refractive Indices		
n1548	1548.1	1.59999
n1309	1308.5	1.60296
nt	1014.0	1.60691
nA'	768.2	1.61163
nr	706.5	1.61334
nC	656.3	1.61503
nC'	643.9	1.61550
nD	589.3	1.61791
nd	587.6	1.61800
ne	546.1	1.62033
nF	486.1	1.62478
nF'	480.0	1.62534
ng	435.8	1.63007
nh	404.7	1.63444
ni	365.0	1.64186

分散式の常数 Constants of Dispersion Formula	
A0	2.5788860
A1	$-1.0381408 \times 10^{-2}$
A2	1.4233563×10^{-2}
A3	1.2483021×10^{-4}
A4	1.7477672×10^{-5}
A5	$-9.6204805 \times 10^{-7}$

dn/dTの分散常数 Constants of Dispersion dn/dT abs.	
D0	-9.04×10^{-6}
D1	1.10×10^{-8}
D2	-2.48×10^{-10}
E0	3.21×10^{-7}
E1	4.56×10^{-10}
$\lambda_{TK} (\mu m)$	0.226

部分分散および部分分散比 Partial Dispersions and Relative Partial Dispersions			
nC-nt	nC-nA'	nd-nC	ne-nC
0.00812	0.00340	0.00297	0.00530
$\theta_{C,t}$	$\theta_{C,A'}$	$\theta_{d,C}$	$\theta_{e,C}$
0.833	0.349	0.305	0.544
ng-nd	ng-nF	nh-ng	ni-ng
0.01207	0.00529	0.00437	0.01179
$\theta_{g,d}$	$\theta_{g,F(\Delta)}$	$\theta_{h,g}$	$\theta_{i,g}$
1.238	0.543 (0.0055)	0.448	1.209
nC'-nt	ne-nC'	nF'-ne	ni-nF'
0.00859	0.00483	0.00501	0.01652
$\theta_{C',t}$	$\theta_{e,C'}$	$\theta_{F',e}$	$\theta_{i,F'}$
0.873	0.491	0.509	1.679

機械的性質 Mechanical Properties	熱的性質 Thermal Properties
ヌープ硬さ Hk Knoop Hardness 407 (4)	転移点 Tg (°C) Transformation Point 624
ビッカース硬さ Hv Vickers Hardness 429	屈伏点 At (°C) Yielding Point 655
摩耗度 Ha Abrasion 270	線膨張係数 $\alpha (\times 10^{-7} \text{°C}^{-1})$ Thermal Expansion 79
ヤング率 E ($\times 10^8 \text{N} \cdot \text{m}^{-2}$) Young's Modulus 769	(-30~+70°C) 79 (+100~+300°C) 99
剛性率 G ($\times 10^8 \text{N} \cdot \text{m}^{-2}$) Modulus of Rigidity 298	熱伝導率 $\lambda (\text{W} \cdot \text{m}^{-1} \cdot \text{K}^{-1})$ Thermal Conductivity
ポアソン比 σ Poisson Ratio 0.289	比熱 Cp ($\text{J} \cdot \text{kg}^{-1} \cdot \text{K}^{-1}$) Specific Heat
化学的性質 Chemical Properties	その他 Other Properties
耐水性(粉末法) RW Water Resistance 1	泡 B Bubbles
耐酸性(粉末法) RA Acid Resistance 5	着色度 C Coloration 38/32
耐久性(表面法) DW Chemical Durability 1	比重 S.g Specific Gravity 3.63
備考 Remarks	生産頻度 PF Production frequency

内部透過率 τ Internal Transmittance		
$\lambda (\text{nm})$	10mm	25mm
270		
280		
290		
300		
310	0.027	
320	0.100	0.003
330	0.232	0.026
340	0.431	0.122
350	0.619	0.301
360	0.772	0.525
370	0.869	0.705
380	0.923	0.820
390	0.957	0.896
400	0.971	0.930
420	0.985	0.964
440	0.988	0.971
460	0.990	0.975
480	0.990	0.975
500	0.991	0.978
550	0.994	0.985
600	0.995	0.989
650	0.997	0.992
700	0.997	0.992
800	0.998	0.996
1060	0.998	0.996
1500	0.998	0.996
2000	0.982	0.957

屈折率の温度係数 Temperature Coefficients of Refractive Index						
	(dn/dT)rel. ($\times 10^{-6} \text{°C}^{-1}$)			(dn/dT)abs. ($\times 10^{-6} \text{°C}^{-1}$)		
(°C)	1548.1	d	g	1548.1	d	g
-40/-20	-3.7	-3.3	-2.8	-5.8	-5.5	-5.1
0/+20	-2.9	-2.5	-1.9	-4.5	-4.1	-3.6
+40/+60	-3.1	-2.7	-2.1	-4.3	-3.9	-3.3

613586 K-SK4	nd	1.61272	ν d	58.6	nF-nC	0.01046
	ne	1.61521	ν e	58.3	nF'-nC'	0.01055

屈折率 Refractive Indices		
n1548	1548.1	1.59421
n1309	1308.5	1.59711
nt	1014.0	1.60107
nA'	768.2	1.60592
nr	706.5	1.60773
nC	656.3	1.60954
nC'	643.9	1.61005
nD	589.3	1.61263
nd	587.6	1.61272
ne	546.1	1.61521
nF	486.1	1.62000
nF'	480.0	1.62060
ng	435.8	1.62570
nh	404.7	1.63044
ni	365.0	1.63849

分散式の常数 Constants of Dispersion Formula	
A0	2.5587726
A1	$-9.8095616 \times 10^{-3}$
A2	1.4840563×10^{-2}
A3	3.1931660×10^{-4}
A4	$-1.0164360 \times 10^{-5}$
A5	6.6518794×10^{-7}

dn/dTの分散常数 Constants of Dispersion dn/dT abs.	
D0	4.04×10^{-7}
D1	1.86×10^{-8}
D2	-3.68×10^{-10}
E0	4.13×10^{-7}
E1	4.69×10^{-10}
$\lambda_{TK} (\mu m)$	0.197

部分分散および部分分散比 Partial Dispersions and Relative Partial Dispersions			
nC-nt	nC-nA'	nd-nC	ne-nC
0.00847	0.00362	0.00318	0.00567
θ C,t	θ C,A'	θ d,C	θ e,C
0.810	0.346	0.304	0.542
ng-nd	ng-nF	nh-ng	ni-ng
0.01298	0.00570	0.00474	0.01279
θ g,d	θ g,F(Δ)	θ h,g	θ i,g
1.241	0.545 (-0.0006)	0.453	1.223
nC'-nt	ne-nC'	nF'-ne	ni-nF'
0.00898	0.00516	0.00539	0.01789
θ 'C',t	θ 'e,C'	θ 'F',e	θ 'i,F'
0.851	0.489	0.511	1.696

機械的性質 Mechanical Properties	熱的性質 Thermal Properties
ヌープ硬さ Hk Knoop Hardness 570 (6)	転移点 Tg (°C) Transformation Point 660
ビッカース硬さ Hv Vickers Hardness 533	屈伏点 At (°C) Yielding Point 708
摩耗度 Ha Abrasion 140	線膨張係数 α ($\times 10^{-7} \text{°C}^{-1}$) Thermal Expansion
ヤング率 E ($\times 10^8 \text{N} \cdot \text{m}^{-2}$) Young's Modulus 811	(-30~+70°C) 61 (+100~+300°C) 76
剛性率 G ($\times 10^8 \text{N} \cdot \text{m}^{-2}$) Modulus of Rigidity 320	熱伝導率 λ ($\text{W} \cdot \text{m}^{-1} \cdot \text{K}^{-1}$) Thermal Conductivity 0.773
ポアソン比 σ Poisson Ratio 0.268	比熱 Cp ($\text{J} \cdot \text{kg}^{-1} \cdot \text{K}^{-1}$) Specific Heat 535
化学的性質 Chemical Properties	その他 Other Properties
耐水性(粉末法) RW Water Resistance 1	泡 B Bubbles
耐酸性(粉末法) RA Acid Resistance 4	着色度 C Coloration 34/29
耐久性(表面法) DW Chemical Durability 3	比重 S.g Specific Gravity 3.58
備考 Remarks	生産頻度 PF Production frequency

内部透過率 τ Internal Transmittance		
λ (nm)	10mm	25mm
270		
280	0.022	
290	0.122	
300	0.329	0.062
310	0.540	0.214
320	0.708	0.423
330	0.829	0.625
340	0.901	0.771
350	0.943	0.864
360	0.965	0.916
370	0.978	0.947
380	0.985	0.964
390	0.988	0.971
400	0.991	0.978
420	0.991	0.978
440	0.991	0.978
460	0.995	0.989
480	0.995	0.989
500	0.997	0.992
550	0.997	0.992
600	0.998	0.996
650	0.998	0.996
700	0.998	0.996
800	0.998	0.996
1060	0.998	0.996
1500	0.998	0.996
2000	0.971	0.930

屈折率の温度係数 Temperature Coefficients of Refractive Index						
	(dn/dT)rel. ($\times 10^{-6} \text{°C}^{-1}$)			(dn/dT)abs. ($\times 10^{-6} \text{°C}^{-1}$)		
(°C)	1548.1	d	g	1548.1	d	g
-40/-20	0.2	0.7	1.3	-2.0	-1.5	-0.9
0/+20	1.6	2.2	3.0	0.0	0.6	1.3
+40/+60	1.6	2.2	3.0	0.3	1.0	1.7

589612 K-SK5	nd	1.58913	ν d	61.2	nF-nC	0.00962
	ne	1.59143	ν e	61.0	nF'-nC'	0.00969

屈折率 Refractive Indices		
n1548	1548.1	1.57087
n1309	1308.5	1.57400
nt	1014.0	1.57814
nA'	768.2	1.58281
nr	706.5	1.58451
nC	656.3	1.58619
nC'	643.9	1.58666
nD	589.3	1.58905
nd	587.6	1.58913
ne	546.1	1.59143
nF	486.1	1.59581
nF'	480.0	1.59635
ng	435.8	1.60100
nh	404.7	1.60530
ni	365.0	1.61264

分散式の常数 Constants of Dispersion Formula	
A0	2.4895419
A1	$-1.1359477 \times 10^{-2}$
A2	1.2448401×10^{-2}
A3	5.5781133×10^{-4}
A4	$-5.0555753 \times 10^{-5}$
A5	2.8679508×10^{-6}

dn/dTの分散常数 Constants of Dispersion dn/dT abs.	
D0	2.52×10^{-6}
D1	1.71×10^{-8}
D2	-2.45×10^{-10}
E0	3.45×10^{-7}
E1	4.68×10^{-10}
$\lambda_{TK} (\mu m)$	0.211

部分分散および部分分散比 Partial Dispersions and Relative Partial Dispersions			
nC-nt	nC-nA'	nd-nC	ne-nC
0.00805	0.00338	0.00294	0.00524
θ C,t	θ C,A'	θ d,C	θ e,C
0.837	0.351	0.306	0.545
ng-nd	ng-nF	nh-ng	ni-ng
0.01187	0.00519	0.00430	0.01164
θ g,d	θ g,F(Δ)	θ h,g	θ i,g
1.234	0.540 (-0.0012)	0.447	1.210
nC'-nt	ne-nC'	nF'-ne	ni-nF'
0.00852	0.00477	0.00492	0.01629
θ 'C',t	θ 'e,C'	θ 'F',e	θ 'i,F'
0.879	0.492	0.508	1.681

機械的性質 Mechanical Properties	熱的性質 Thermal Properties
ヌープ硬さ Hk Knoop Hardness 661 (7)	転移点 Tg (°C) Transformation Point 667
ビッカース硬さ Hv Vickers Hardness 698	屈伏点 At (°C) Yielding Point 700
摩耗度 Ha Abrasion 110	線膨張係数 α ($\times 10^{-7} \text{°C}^{-1}$) Thermal Expansion
ヤング率 E ($\times 10^8 \text{N} \cdot \text{m}^{-2}$) Young's Modulus 841	(-30~+70°C) 54 (+100~+300°C) 67
剛性率 G ($\times 10^8 \text{N} \cdot \text{m}^{-2}$) Modulus of Rigidity 336	熱伝導率 λ ($\text{W} \cdot \text{m}^{-1} \cdot \text{K}^{-1}$) Thermal Conductivity
ポアソン比 σ Poisson Ratio 0.252	比熱 Cp ($\text{J} \cdot \text{kg}^{-1} \cdot \text{K}^{-1}$) Specific Heat
化学的性質 Chemical Properties	その他 Other Properties
耐水性(粉末法) RW Water Resistance 2	泡 B Bubbles
耐酸性(粉末法) RA Acid Resistance 4	着色度 C Coloration 34/29
耐久性(表面法) DW Chemical Durability	比重 S.g Specific Gravity 3.32
備考 Remarks	生産頻度 PF Production frequency

内部透過率 τ Internal Transmittance		
λ (nm)	10mm	25mm
270		
280	0.058	
290	0.120	
300	0.284	0.043
310	0.498	0.175
320	0.678	0.378
330	0.806	0.584
340	0.889	0.747
350	0.937	0.850
360	0.963	0.912
370	0.978	0.947
380	0.987	0.968
390	0.992	0.980
400	0.992	0.980
420	0.993	0.984
440	0.993	0.984
460	0.993	0.984
480	0.993	0.984
500	0.995	0.989
550	0.995	0.989
600	0.995	0.989
650	0.995	0.989
700	0.997	0.994
800	0.998	0.996
1060	0.998	0.996
1500	0.998	0.995
2000	0.979	0.949

屈折率の温度係数 Temperature Coefficients of Refractive Index						
	(dn/dT)rel. ($\times 10^{-6} \text{°C}^{-1}$)			(dn/dT)abs. ($\times 10^{-6} \text{°C}^{-1}$)		
(°C)	1548.1	d	g	1548.1	d	g
-40/-20	1.7	2.1	2.7	-0.4	0.0	0.5
0/+20	2.6	3.1	3.8	1.0	1.5	2.2
+40/+60	2.6	3.2	3.9	1.4	2.0	2.7

607595 K-SK7	nd	1.60729	ν d	59.5	nF-nC	0.01021
	ne	1.60973	ν e	59.3	nF'-nC'	0.01029

屈折率 Refractive Indices		
n1548	1548.1	1.58879
n1309	1308.5	1.59177
nt	1014.0	1.59581
nA'	768.2	1.60062
nr	706.5	1.60241
nC	656.3	1.60418
nC'	643.9	1.60468
nD	589.3	1.60720
nd	587.6	1.60729
ne	546.1	1.60973
nF	486.1	1.61439
nF'	480.0	1.61497
ng	435.8	1.61994
nh	404.7	1.62454
ni	365.0	1.63236

分散式の常数 Constants of Dispersion Formula	
A0	2.5429277
A1	$-1.0317190 \times 10^{-2}$
A2	1.4356944×10^{-2}
A3	3.1433872×10^{-4}
A4	$-1.0824341 \times 10^{-5}$
A5	6.8100892×10^{-7}

dn/dTの分散常数 Constants of Dispersion dn/dT abs.	
D0	2.39×10^{-7}
D1	1.74×10^{-8}
D2	-2.81×10^{-10}
E0	4.14×10^{-7}
E1	1.06×10^{-9}
$\lambda_{TK} (\mu m)$	0.188

部分分散および部分分散比 Partial Dispersions and Relative Partial Dispersions			
nC-nt	nC-nA'	nd-nC	ne-nC
0.00837	0.00356	0.00311	0.00555
θ C,t	θ C,A'	θ d,C	θ e,C
0.820	0.349	0.305	0.544
ng-nd	ng-nF	nh-ng	ni-ng
0.01265	0.00555	0.00460	0.01242
θ g,d	θ g,F(Δ)	θ h,g	θ i,g
1.239	0.544 (-0.0001)	0.451	1.216
nC'-nt	ne-nC'	nF'-ne	ni-nF'
0.00887	0.00505	0.00524	0.01739
θ 'C',t	θ 'e,C'	θ 'F',e	θ 'i,F'
0.862	0.491	0.509	1.690

機械的性質 Mechanical Properties	熱的性質 Thermal Properties
ヌープ硬さ Hk Knoop Hardness 563 (6)	転移点 Tg (°C) Transformation Point 662
ビッカース硬さ Hv Vickers Hardness 555	屈伏点 At (°C) Yielding Point 710
摩耗度 Ha Abrasion 130	線膨張係数 $\alpha (\times 10^{-7} \text{°C}^{-1})$ Thermal Expansion
ヤング率 E ($\times 10^8 \text{N} \cdot \text{m}^{-2}$) Young's Modulus 847	(-30~+70°C) 71 (+100~+300°C) 77
剛性率 G ($\times 10^8 \text{N} \cdot \text{m}^{-2}$) Modulus of Rigidity 335	熱伝導率 $\lambda (\text{W} \cdot \text{m}^{-1} \cdot \text{K}^{-1})$ Thermal Conductivity
ポアソン比 σ Poisson Ratio 0.263	比熱 Cp ($\text{J} \cdot \text{kg}^{-1} \cdot \text{K}^{-1}$) Specific Heat
化学的性質 Chemical Properties	その他 Other Properties
耐水性(粉末法) RW Water Resistance 1	泡 B Bubbles
耐酸性(粉末法) RA Acid Resistance 5	着色度 C Coloration 35/30
耐久性(表面法) DW Chemical Durability 3	比重 S.g Specific Gravity 3.50
備考 Remarks	生産頻度 PF Production frequency

内部透過率 τ Internal Transmittance		
λ (nm)	10mm	25mm
270		
280		
290	0.013	
300	0.138	
310	0.371	0.084
320	0.582	0.258
330	0.753	0.492
340	0.846	0.659
350	0.915	0.801
360	0.943	0.864
370	0.964	0.913
380	0.974	0.937
390	0.977	0.944
400	0.981	0.954
420	0.982	0.957
440	0.982	0.957
460	0.985	0.964
480	0.985	0.964
500	0.988	0.971
550	0.991	0.978
600	0.992	0.982
650	0.992	0.982
700	0.995	0.989
800	0.998	0.996
1060	0.985	0.964
1500	0.978	0.947
2000	0.954	0.890

屈折率の温度係数 Temperature Coefficients of Refractive Index						
	(dn/dT)rel. ($\times 10^{-6} \text{°C}^{-1}$)			(dn/dT)abs. ($\times 10^{-6} \text{°C}^{-1}$)		
(°C)	1548.1	d	g	1548.1	d	g
-40/-20	0.5	0.9	1.4	-1.7	-1.3	-0.8
0/+20	1.6	2.1	2.8	0.0	0.5	1.2
+40/+60	1.6	2.3	3.1	0.3	1.0	1.8

603607 K-SK14	nd	1.60311	ν d	60.7	nF-nC	0.00994
	ne	1.60548	ν e	60.4	nF'-nC'	0.01002

屈折率 Refractive Indices		
n1548	1548.1	1.58460
n1309	1308.5	1.58769
nt	1014.0	1.59181
nA'	768.2	1.59660
nr	706.5	1.59835
nC	656.3	1.60008
nC'	643.9	1.60056
nD	589.3	1.60302
nd	587.6	1.60311
ne	546.1	1.60548
nF	486.1	1.61002
nF'	480.0	1.61058
ng	435.8	1.61540
nh	404.7	1.61986
ni	365.0	1.62742

分散式の常数 Constants of Dispersion Formula	
A0	2.5313894
A1	$-1.0956275 \times 10^{-2}$
A2	1.3803544×10^{-2}
A3	2.9803889×10^{-4}
A4	$-6.2451964 \times 10^{-6}$
A5	2.5686024×10^{-7}

dn/dTの分散常数 Constants of Dispersion dn/dT abs.	
D0	5.63×10^{-7}
D1	2.16×10^{-8}
D2	-8.94×10^{-11}
E0	4.28×10^{-7}
E1	2.18×10^{-10}
$\lambda_{TK} (\mu m)$	0.160

部分分散および部分分散比 Partial Dispersions and Relative Partial Dispersions			
nC-nt	nC-nA'	nd-nC	ne-nC
0.00827	0.00348	0.00303	0.00540
$\theta_{C,t}$	$\theta_{C,A'}$	$\theta_{d,C}$	$\theta_{e,C}$
0.832	0.350	0.305	0.543
ng-nd	ng-nF	nh-ng	ni-ng
0.01229	0.00538	0.00446	0.01202
$\theta_{g,d}$	$\theta_{g,F(\Delta)}$	$\theta_{h,g}$	$\theta_{i,g}$
1.236	0.541 (-0.0011)	0.449	1.209
nC'-nt	ne-nC'	nF'-ne	ni-nF'
0.00875	0.00492	0.00510	0.01684
$\theta_{C',t}$	$\theta_{e,C'}$	$\theta_{F',e}$	$\theta_{i,F'}$
0.873	0.491	0.509	1.681

機械的性質 Mechanical Properties	熱的性質 Thermal Properties
ヌープ硬さ Hk Knoop Hardness 539 (5)	転移点 Tg (°C) Transformation Point 646
ビッカース硬さ Hv Vickers Hardness 573	屈伏点 At (°C) Yielding Point 684
摩耗度 Ha Abrasion 130	線膨張係数 $\alpha (\times 10^{-7} \text{°C}^{-1})$ Thermal Expansion
ヤング率 E ($\times 10^8 \text{N} \cdot \text{m}^{-2}$) Young's Modulus 857	(-30~+70°C) 57 (+100~+300°C) 73
剛性率 G ($\times 10^8 \text{N} \cdot \text{m}^{-2}$) Modulus of Rigidity 340	熱伝導率 $\lambda (\text{W} \cdot \text{m}^{-1} \cdot \text{K}^{-1})$ Thermal Conductivity
ポアソン比 σ Poisson Ratio 0.260	比熱 Cp ($\text{J} \cdot \text{kg}^{-1} \cdot \text{K}^{-1}$) Specific Heat
化学的性質 Chemical Properties	その他 Other Properties
耐水性(粉末法) RW Water Resistance 2	泡 B Bubbles
耐酸性(粉末法) RA Acid Resistance 4	着色度 C Coloration 35/29
耐久性(表面法) DW Chemical Durability 3	比重 S.g Specific Gravity 3.44
備考 Remarks	生産頻度 PF Production frequency

内部透過率 τ Internal Transmittance		
$\lambda(\text{nm})$	10mm	25mm
270		
280	0.063	
290	0.128	
300	0.303	0.050
310	0.511	0.187
320	0.693	0.400
330	0.800	0.574
340	0.887	0.742
350	0.933	0.841
360	0.963	0.910
370	0.977	0.943
380	0.986	0.967
390	0.990	0.976
400	0.992	0.981
420	0.995	0.988
440	0.995	0.988
460	0.995	0.988
480	0.995	0.988
500	0.997	0.992
550	0.997	0.993
600	0.997	0.994
650	0.998	0.996
700	0.998	0.996
800	0.998	0.996
1060	0.998	0.996
1500	0.995	0.988
2000	0.977	0.945

屈折率の温度係数 Temperature Coefficients of Refractive Index						
	(dn/dT)rel. ($\times 10^{-6} \text{°C}^{-1}$)			(dn/dT)abs. ($\times 10^{-6} \text{°C}^{-1}$)		
(°C)	1548.1	d	g	1548.1	d	g
-40/-20	1.1	1.7	2.3	-1.0	-0.5	0.1
0/+20	1.7	2.3	3.0	0.1	0.7	1.3
+40/+60	2.1	2.7	3.4	0.9	1.5	2.1

623581 K-SK15	nd	1.62299	ν d	58.1	nF-nC	0.01072
	ne	1.62554	ν e	57.9	nF'-nC'	0.01080

屈折率 Refractive Indices		
n1548	1548.1	1.60395
n1309	1308.5	1.60697
nt	1014.0	1.61108
nA'	768.2	1.61604
nr	706.5	1.61789
nC	656.3	1.61973
nC'	643.9	1.62026
nD	589.3	1.62289
nd	587.6	1.62299
ne	546.1	1.62554
nF	486.1	1.63045
nF'	480.0	1.63106
ng	435.8	1.63628
nh	404.7	1.64112
ni	365.0	1.64942

分散式の常数 Constants of Dispersion Formula	
A0	2.5918508
A1	$-1.0567563 \times 10^{-2}$
A2	1.4411695×10^{-2}
A3	6.3226961×10^{-4}
A4	$-5.7927037 \times 10^{-5}$
A5	3.4193172×10^{-6}

dn/dTの分散常数 Constants of Dispersion dn/dT abs.	
D0	-1.08×10^{-6}
D1	1.69×10^{-8}
D2	-2.15×10^{-10}
E0	4.40×10^{-7}
E1	6.37×10^{-10}
$\lambda_{TK} (\mu m)$	0.190

部分分散および部分分散比 Partial Dispersions and Relative Partial Dispersions			
nC-nt	nC-nA'	nd-nC	ne-nC
0.00865	0.00369	0.00326	0.00581
$\theta_{C,t}$	$\theta_{C,A'}$	$\theta_{d,C}$	$\theta_{e,C}$
0.807	0.344	0.304	0.542
ng-nd	ng-nF	nh-ng	ni-ng
0.01329	0.00583	0.00484	0.01314
$\theta_{g,d}$	$\theta_{g,F(\Delta)}$	$\theta_{h,g}$	$\theta_{i,g}$
1.240	0.544 (-0.0024)	0.451	1.226
nC'-nt	ne-nC'	nF'-ne	ni-nF'
0.00918	0.00528	0.00552	0.01836
$\theta'_{C',t}$	$\theta'_{e,C'}$	$\theta'_{F',e}$	$\theta'_{i,F'}$
0.850	0.489	0.511	1.700

機械的性質 Mechanical Properties	熱的性質 Thermal Properties
ヌープ硬さ Hk Knoop Hardness 473 (5)	転移点 Tg (°C) Transformation Point 649
ビッカース硬さ Hv Vickers Hardness 529	屈伏点 At (°C) Yielding Point 688
摩耗度 Ha Abrasion 160	線膨張係数 $\alpha (\times 10^{-7} \text{°C}^{-1})$ Thermal Expansion
ヤング率 E ($\times 10^8 \text{N} \cdot \text{m}^{-2}$) Young's Modulus 819	(-30~+70°C) 68 (+100~+300°C) 80
剛性率 G ($\times 10^8 \text{N} \cdot \text{m}^{-2}$) Modulus of Rigidity 327	熱伝導率 $\lambda (\text{W} \cdot \text{m}^{-1} \cdot \text{K}^{-1})$ Thermal Conductivity
ポアソン比 σ Poisson Ratio 0.254	比熱 Cp ($\text{J} \cdot \text{kg}^{-1} \cdot \text{K}^{-1}$) Specific Heat
化学的性質 Chemical Properties	その他 Other Properties
耐水性(粉末法) RW Water Resistance 2	泡 B Bubbles
耐酸性(粉末法) RA Acid Resistance 4	着色度 C Coloration 35/30
耐久性(表面法) DW Chemical Durability 3	比重 S.g Specific Gravity 3.67
備考 Remarks	生産頻度 PF Production frequency

内部透過率 τ Internal Transmittance		
$\lambda(\text{nm})$	10mm	25mm
270		
280		
290	0.022	
300	0.138	
310	0.350	0.072
320	0.559	0.234
330	0.733	0.460
340	0.839	0.646
350	0.905	0.780
360	0.946	0.870
370	0.967	0.920
380	0.978	0.947
390	0.985	0.964
400	0.988	0.971
420	0.991	0.978
440	0.992	0.982
460	0.995	0.989
480	0.995	0.989
500	0.997	0.992
550	0.997	0.992
600	0.998	0.996
650	0.998	0.996
700	0.998	0.996
800	0.998	0.996
1060	0.998	0.996
1500	0.995	0.989
2000	0.971	0.930

屈折率の温度係数 Temperature Coefficients of Refractive Index						
	(dn/dT)rel. ($\times 10^{-6} \text{°C}^{-1}$)			(dn/dT)abs. ($\times 10^{-6} \text{°C}^{-1}$)		
(°C)	1548.1	d	g	1548.1	d	g
-40/-20	0.1	0.6	1.3	-2.1	-1.6	-1.0
0/+20	0.9	1.6	2.3	-0.6	-0.1	0.7
+40/+60	1.0	1.7	2.5	-0.2	0.5	1.3

620603 K-SK16RH	nd	1.62041	ν d	60.3	nF-nC	0.01029
	ne	1.62286	ν e	60.1	nF'-nC'	0.01037

屈折率 Refractive Indices		
n1548	1548.1	1.60103
n1309	1308.5	1.60431
nt	1014.0	1.60862
nA'	768.2	1.61364
nr	706.5	1.61546
nC	656.3	1.61726
nC'	643.9	1.61777
nD	589.3	1.62032
nd	587.6	1.62041
ne	546.1	1.62286
nF	486.1	1.62755
nF'	480.0	1.62814
ng	435.8	1.63312
nh	404.7	1.63772
ni	365.0	1.64557

分散式の常数 Constants of Dispersion Formula	
A0	2.5853303
A1	$-1.1740187 \times 10^{-2}$
A2	1.4496524×10^{-2}
A3	3.2871610×10^{-4}
A4	$-1.5804639 \times 10^{-5}$
A5	1.1016183×10^{-6}

dn/dTの分散常数 Constants of Dispersion dn/dT abs.	
D0	3.39×10^{-7}
D1	1.49×10^{-8}
D2	-2.68×10^{-10}
E0	3.99×10^{-7}
E1	1.11×10^{-9}
$\lambda_{TK} (\mu m)$	0.174

部分分散および部分分散比 Partial Dispersions and Relative Partial Dispersions			
nC-nt	nC-nA'	nd-nC	ne-nC
0.00864	0.00362	0.00315	0.00560
$\theta_{C,t}$	$\theta_{C,A'}$	$\theta_{d,C}$	$\theta_{e,C}$
0.840	0.352	0.306	0.544
ng-nd	ng-nF	nh-ng	ni-ng
0.01271	0.00557	0.00460	0.01245
$\theta_{g,d}$	$\theta_{g,F(\Delta)}$	$\theta_{h,g}$	$\theta_{i,g}$
1.235	0.541 (-0.0017)	0.447	1.210
nC'-nt	ne-nC'	nF'-ne	ni-nF'
0.00915	0.00509	0.00528	0.01743
$\theta_{C',t}$	$\theta_{e,C'}$	$\theta_{F',e}$	$\theta_{i,F'}$
0.882	0.491	0.509	1.681

機械的性質 Mechanical Properties	熱的性質 Thermal Properties
ヌープ硬さ Hk Knoop Hardness 624 (6)	転移点 Tg (°C) Transformation Point 653
ビッカース硬さ Hv Vickers Hardness 623	屈伏点 At (°C) Yielding Point 695
摩耗度 Ha Abrasion 130	線膨張係数 $\alpha (\times 10^{-7} \text{°C}^{-1})$ Thermal Expansion
ヤング率 E ($\times 10^8 \text{N} \cdot \text{m}^{-2}$) Young's Modulus 888	(-30~+70°C) 60 (+100~+300°C) 72
剛性率 G ($\times 10^8 \text{N} \cdot \text{m}^{-2}$) Modulus of Rigidity 351	熱伝導率 $\lambda (\text{W} \cdot \text{m}^{-1} \cdot \text{K}^{-1})$ Thermal Conductivity
ポアソン比 σ Poisson Ratio 0.266	比熱 Cp ($\text{J} \cdot \text{kg}^{-1} \cdot \text{K}^{-1}$) Specific Heat
化学的性質 Chemical Properties	その他 Other Properties
耐水性(粉末法) RW Water Resistance 2	泡 B Bubbles
耐酸性(粉末法) RA Acid Resistance 5	着色度 C Coloration 35/29
耐久性(表面法) DW Chemical Durability 2	比重 S.g Specific Gravity 3.50
備考 Remarks	生産頻度 PF Production frequency C

内部透過率 τ Internal Transmittance		
$\lambda(\text{nm})$	10mm	25mm
270		
280	0.010	
290	0.086	
300	0.251	0.031
310	0.447	0.134
320	0.625	0.309
330	0.772	0.525
340	0.860	0.686
350	0.915	0.801
360	0.957	0.896
370	0.978	0.947
380	0.985	0.964
390	0.997	0.992
400	0.997	0.992
420	0.997	0.992
440	0.997	0.992
460	0.998	0.996
480	0.998	0.996
500	0.998	0.996
550	0.998	0.996
600	0.998	0.996
650	0.998	0.996
700	0.998	0.996
800	0.998	0.996
1060	0.992	0.982
1500	0.978	0.947
2000	0.953	0.887

屈折率の温度係数 Temperature Coefficients of Refractive Index						
	(dn/dT)rel. ($\times 10^{-6} \text{°C}^{-1}$)			(dn/dT)abs. ($\times 10^{-6} \text{°C}^{-1}$)		
(°C)	1548.1	d	g	1548.1	d	g
-40/-20	0.7	1.1	1.6	-1.5	-1.1	-0.7
0/+20	1.6	2.2	2.8	0.1	0.6	1.2
+40/+60	1.6	2.2	3.0	0.3	1.0	1.7

639555 K-SK18	nd	1.63854	ν d	55.5	nF-nC	0.01151
	ne	1.64128	ν e	55.2	nF'-nC'	0.01161

屈折率 Refractive Indices		
n1548	1548.1	1.61841
n1309	1308.5	1.62154
nt	1014.0	1.62584
nA'	768.2	1.63112
nr	706.5	1.63309
nC	656.3	1.63506
nC'	643.9	1.63562
nD	589.3	1.63844
nd	587.6	1.63854
ne	546.1	1.64128
nF	486.1	1.64657
nF'	480.0	1.64723
ng	435.8	1.65289
nh	404.7	1.65818
ni	365.0	1.66731

分散式の常数 Constants of Dispersion Formula	
A0	2.6383229
A1	$-1.0806956 \times 10^{-2}$
A2	1.6153414×10^{-2}
A3	4.6673954×10^{-4}
A4	$-2.5414619 \times 10^{-5}$
A5	1.9703165×10^{-6}

dn/dTの分散常数 Constants of Dispersion dn/dT abs.	
D0	-1.85×10^{-6}
D1	1.90×10^{-8}
D2	-1.30×10^{-10}
E0	4.59×10^{-7}
E1	9.89×10^{-10}
$\lambda_{TK} (\mu m)$	0.204

部分分散および部分分散比 Partial Dispersions and Relative Partial Dispersions			
nC-nt	nC-nA'	nd-nC	ne-nC
0.00922	0.00394	0.00348	0.00622
$\theta_{C,t}$	$\theta_{C,A'}$	$\theta_{d,C}$	$\theta_{e,C}$
0.801	0.342	0.302	0.540
ng-nd	ng-nF	nh-ng	ni-ng
0.01435	0.00632	0.00529	0.01442
$\theta_{g,d}$	$\theta_{g,F(\Delta)}$	$\theta_{h,g}$	$\theta_{i,g}$
1.247	0.549 (-0.0018)	0.460	1.253
nC'-nt	ne-nC'	nF'-ne	ni-nF'
0.00978	0.00566	0.00595	0.02008
$\theta'_{C',t}$	$\theta'_{e,C'}$	$\theta'_{F',e}$	$\theta'_{i,F'}$
0.842	0.488	0.512	1.730

機械的性質 Mechanical Properties	熱的性質 Thermal Properties
ヌープ硬さ Hk Knoop Hardness 574 (6)	転移点 Tg (°C) Transformation Point 647
ビッカース硬さ Hv Vickers Hardness 566	屈伏点 At (°C) Yielding Point 688
摩耗度 Ha Abrasion 160	線膨張係数 $\alpha (\times 10^{-7} \text{°C}^{-1})$ Thermal Expansion
ヤング率 E ($\times 10^8 \text{N} \cdot \text{m}^{-2}$) Young's Modulus 860	(-30~+70°C) 68 (+100~+300°C) 81
剛性率 G ($\times 10^8 \text{N} \cdot \text{m}^{-2}$) Modulus of Rigidity 338	熱伝導率 $\lambda (\text{W} \cdot \text{m}^{-1} \cdot \text{K}^{-1})$ Thermal Conductivity
ポアソン比 σ Poisson Ratio 0.272	比熱 Cp ($\text{J} \cdot \text{kg}^{-1} \cdot \text{K}^{-1}$) Specific Heat
化学的性質 Chemical Properties	その他 Other Properties
耐水性(粉末法) RW Water Resistance 3	泡 B Bubbles
耐酸性(粉末法) RA Acid Resistance 5	着色度 C Coloration 38/33
耐久性(表面法) DW Chemical Durability 3	比重 S.g Specific Gravity 3.69
備考 Remarks	生産頻度 PF Production frequency

内部透過率 τ Internal Transmittance		
$\lambda(\text{nm})$	10mm	25mm
270		
280		
290		
300		
310		
320		
330	0.050	
340	0.126	
350	0.425	0.118
360	0.669	0.366
370	0.826	0.620
380	0.907	0.783
390	0.950	0.880
400	0.971	0.930
420	0.988	0.971
440	0.990	0.975
460	0.991	0.978
480	0.994	0.985
500	0.994	0.985
550	0.995	0.989
600	0.995	0.989
650	0.997	0.992
700	0.998	0.996
800	0.998	0.996
1060	0.997	0.992
1500	0.992	0.982
2000	0.971	0.930

屈折率の温度係数 Temperature Coefficients of Refractive Index						
	(dn/dT)rel. ($\times 10^{-6} \text{°C}^{-1}$)			(dn/dT)abs. ($\times 10^{-6} \text{°C}^{-1}$)		
(°C)	1548.1	d	g	1548.1	d	g
-40/-20	-0.1	0.4	1.1	-2.3	-1.8	-1.2
0/+20	0.6	1.2	2.0	-1.0	-0.4	0.4
+40/+60	0.8	1.6	2.6	-0.4	0.3	1.3

639555 K-SK18RH	nd	1.63854	ν d	55.5	nF-nC	0.01151
	ne	1.64128	ν e	55.2	nF'-nC'	0.01162

屈折率 Refractive Indices		
n1548	1548.1	1.61869
n1309	1308.5	1.62168
nt	1014.0	1.62588
nA'	768.2	1.63111
nr	706.5	1.63309
nC	656.3	1.63506
nC'	643.9	1.63561
nD	589.3	1.63844
nd	587.6	1.63854
ne	546.1	1.64128
nF	486.1	1.64657
nF'	480.0	1.64723
ng	435.8	1.65289
nh	404.7	1.65818
ni	365.0	1.66715

分散式の常数 Constants of Dispersion Formula	
A0	2.6368942
A1	$-9.9823400 \times 10^{-3}$
A2	1.7151413×10^{-2}
A3	1.1644223×10^{-4}
A4	3.4189945×10^{-5}
A5	$-1.8645959 \times 10^{-6}$

dn/dTの分散常数 Constants of Dispersion dn/dT abs.	
D0	1.10×10^{-6}
D1	1.41×10^{-8}
D2	-2.56×10^{-10}
E0	4.99×10^{-7}
E1	4.12×10^{-10}
$\lambda_{TK} (\mu m)$	0.193

部分分散および部分分散比 Partial Dispersions and Relative Partial Dispersions			
nC-nt	nC-nA'	nd-nC	ne-nC
0.00918	0.00395	0.00348	0.00622
$\theta_{C,t}$	$\theta_{C,A'}$	$\theta_{d,C}$	$\theta_{e,C}$
0.798	0.343	0.302	0.540
ng-nd	ng-nF	nh-ng	ni-ng
0.01435	0.00632	0.00529	0.01426
$\theta_{g,d}$	$\theta_{g,F(\Delta)}$	$\theta_{h,g}$	$\theta_{i,g}$
1.247	0.549 (-0.0018)	0.460	1.239
nC'-nt	ne-nC'	nF'-ne	ni-nF'
0.00973	0.00567	0.00595	0.01992
$\theta'_{C',t}$	$\theta'_{e,C'}$	$\theta'_{F',e}$	$\theta'_{i,F'}$
0.837	0.488	0.512	1.714

機械的性質 Mechanical Properties	熱的性質 Thermal Properties
ヌープ硬さ Hk Knoop Hardness 580 (6)	転移点 Tg (°C) Transformation Point 656
ビッカース硬さ Hv Vickers Hardness 546	屈伏点 At (°C) Yielding Point 707
摩耗度 Ha Abrasion 130	線膨張係数 $\alpha (\times 10^{-7} \text{°C}^{-1})$ Thermal Expansion
ヤング率 E ($\times 10^8 \text{N} \cdot \text{m}^{-2}$) Young's Modulus 915	(-30~+70°C) 67 (+100~+300°C) 84
剛性率 G ($\times 10^8 \text{N} \cdot \text{m}^{-2}$) Modulus of Rigidity 357	熱伝導率 $\lambda (\text{W} \cdot \text{m}^{-1} \cdot \text{K}^{-1})$ Thermal Conductivity
ポアソン比 σ Poisson Ratio 0.281	比熱 Cp ($\text{J} \cdot \text{kg}^{-1} \cdot \text{K}^{-1}$) Specific Heat
化学的性質 Chemical Properties	その他 Other Properties
耐水性(粉末法) RW Water Resistance 1	泡 B Bubbles
耐酸性(粉末法) RA Acid Resistance 3	着色度 C Coloration 36/30
耐久性(表面法) DW Chemical Durability 1	比重 S.g Specific Gravity 3.35
備考 Remarks	生産頻度 PF Production frequency C

内部透過率 τ Internal Transmittance		
$\lambda(\text{nm})$	10mm	25mm
270		
280		
290		
300	0.076	
310	0.255	0.033
320	0.447	0.134
330	0.637	0.324
340	0.786	0.547
350	0.873	0.714
360	0.932	0.838
370	0.960	0.903
380	0.971	0.930
390	0.981	0.954
400	0.985	0.964
420	0.988	0.971
440	0.988	0.971
460	0.990	0.975
480	0.992	0.982
500	0.995	0.989
550	0.995	0.989
600	0.995	0.989
650	0.997	0.992
700	0.997	0.992
800	0.998	0.996
1060	0.995	0.989
1500	0.995	0.989
2000	0.974	0.937

屈折率の温度係数 Temperature Coefficients of Refractive Index						
	(dn/dT)rel. ($\times 10^{-6} \text{°C}^{-1}$)			(dn/dT)abs. ($\times 10^{-6} \text{°C}^{-1}$)		
(°C)	1548.1	d	g	1548.1	d	g
-40/-20	1.1	1.8	2.7	-1.0	-0.4	0.4
0/+20	2.1	2.8	3.7	0.5	1.2	2.1
+40/+60	2.0	2.8	3.7	0.7	1.5	2.5

617540 K-SSK1	nd	1.61720	ν d	54.0	nF-nC	0.01142
	ne	1.61992	ν e	53.8	nF'-nC'	0.01152

屈折率 Refractive Indices		
n1548	1548.1	1.59749
n1309	1308.5	1.60049
nt	1014.0	1.60465
nA'	768.2	1.60985
nr	706.5	1.61180
nC	656.3	1.61375
nC'	643.9	1.61430
nD	589.3	1.61710
nd	587.6	1.61720
ne	546.1	1.61992
nF	486.1	1.62517
nF'	480.0	1.62582
ng	435.8	1.63143
nh	404.7	1.63665
ni	365.0	1.64561

分散式の常数 Constants of Dispersion Formula	
A0	2.5692173
A1	$-1.0022582 \times 10^{-2}$
A2	1.6067095×10^{-2}
A3	3.9868115×10^{-4}
A4	$-1.5698671 \times 10^{-5}$
A5	1.1774033×10^{-6}

dn/dTの分散常数 Constants of Dispersion dn/dT abs.	
D0	1.61×10^{-6}
D1	1.28×10^{-8}
D2	-2.14×10^{-10}
E0	5.61×10^{-7}
E1	1.14×10^{-9}
$\lambda_{TK} (\mu m)$	0.186

部分分散および部分分散比 Partial Dispersions and Relative Partial Dispersions			
nC-nt	nC-nA'	nd-nC	ne-nC
0.00910	0.00390	0.00345	0.00617
θ C,t	θ C,A'	θ d,C	θ e,C
0.797	0.342	0.302	0.540
ng-nd	ng-nF	nh-ng	ni-ng
0.01423	0.00626	0.00522	0.01418
θ g,d	θ g,F(Δ)	θ h,g	θ i,g
1.246	0.548 (-0.0052)	0.457	1.242
nC'-nt	ne-nC'	nF'-ne	ni-nF'
0.00965	0.00562	0.00590	0.01979
θ 'C',t	θ 'e,C'	θ 'F',e	θ 'i,F'
0.838	0.488	0.512	1.718

機械的性質 Mechanical Properties	熱的性質 Thermal Properties
ヌープ硬さ Hk Knoop Hardness 561 (6)	転移点 Tg (°C) Transformation Point 577
ビッカース硬さ Hv Vickers Hardness 570	屈伏点 At (°C) Yielding Point 624
摩耗度 Ha Abrasion 175	線膨張係数 α ($\times 10^{-7} \text{°C}^{-1}$) Thermal Expansion
ヤング率 E ($\times 10^8 \text{N} \cdot \text{m}^{-2}$) Young's Modulus 820	(-30~+70°C) 70 (+100~+300°C) 84
剛性率 G ($\times 10^8 \text{N} \cdot \text{m}^{-2}$) Modulus of Rigidity 328	熱伝導率 λ ($\text{W} \cdot \text{m}^{-1} \cdot \text{K}^{-1}$) Thermal Conductivity
ポアソン比 σ Poisson Ratio 0.250	比熱 Cp ($\text{J} \cdot \text{kg}^{-1} \cdot \text{K}^{-1}$) Specific Heat
化学的性質 Chemical Properties	その他 Other Properties
耐水性(粉末法) RW Water Resistance 1	泡 B Bubbles
耐酸性(粉末法) RA Acid Resistance 1	着色度 C Coloration 35/30
耐久性(表面法) DW Chemical Durability 1	比重 S.g Specific Gravity 3.46
備考 Remarks	生産頻度 PF Production frequency

内部透過率 τ Internal Transmittance		
λ (nm)	3mm	10mm
270		
280		
290	0.286	0.016
300	0.459	0.075
310	0.705	0.312
320	0.854	0.592
330	0.926	0.776
340	0.962	0.880
350	0.979	0.933
360	0.987	0.958
370	0.992	0.975
380	0.995	0.983
390	0.996	0.988
400	0.997	0.991
420	0.998	0.993
440	0.998	0.994
460	0.998	0.995
480	0.999	0.997
500	0.999	0.997
550	0.999	0.999
600	0.999	0.998
650	0.999	0.998
700	0.999	0.999
800	0.999	0.999
1060	0.999	0.999
1500	0.999	0.998
2000	0.994	0.983

屈折率の温度係数 Temperature Coefficients of Refractive Index						
	(dn/dT)rel. ($\times 10^{-6} \text{°C}^{-1}$)			(dn/dT)abs. ($\times 10^{-6} \text{°C}^{-1}$)		
(°C)	1548.1	d	g	1548.1	d	g
-40/-20	1.6	2.3	3.1	-0.5	0.1	0.8
0/+20	2.3	3.1	4.1	0.7	1.5	2.4
+40/+60	2.2	3.2	4.3	1.0	1.9	3.0

615511 K-SSK3	nd	1.61484	ν d	51.1	nF-nC	0.01203
	ne	1.61770	ν e	50.8	nF'-nC'	0.01215

屈折率 Refractive Indices		
n1548	1548.1	
n1309	1308.5	
nt	1014.0	1.60176
nA'	768.2	1.60712
nr	706.5	1.60916
nC	656.3	1.61121
nC'	643.9	1.61178
nD	589.3	1.61473
nd	587.6	1.61484
ne	546.1	1.61770
nF	486.1	1.62324
nF'	480.0	1.62393
ng	435.8	1.62987
nh	404.7	1.63542
ni	365.0	1.64499

分散式の常数 Constants of Dispersion Formula	
A0	2.5581178
A1	$-9.3433459 \times 10^{-3}$
A2	1.7279508×10^{-2}
A3	3.4232239×10^{-4}
A4	$-8.1515194 \times 10^{-6}$
A5	1.1314454×10^{-6}

dn/dTの分散常数 Constants of Dispersion dn/dT abs.	
D0	8.96×10^{-6}
D1	1.89×10^{-8}
D2	-2.12×10^{-10}
E0	6.71×10^{-7}
E1	9.18×10^{-10}
$\lambda_{TK} (\mu m)$	0.191

部分分散および部分分散比 Partial Dispersions and Relative Partial Dispersions			
nC-nt	nC-nA'	nd-nC	ne-nC
0.00945	0.00409	0.00363	0.00649
θ C,t	θ C,A'	θ d,C	θ e,C
0.786	0.340	0.302	0.539
ng-nd	ng-nF	nh-ng	ni-ng
0.01503	0.00663	0.00555	0.01512
θ g,d	θ g,F(Δ)	θ h,g	θ i,g
1.249	0.551 (-0.0071)	0.461	1.257
nC'-nt	ne-nC'	nF'-ne	ni-nF'
0.01002	0.00592	0.00623	0.02106
θ 'C',t	θ 'e,C'	θ 'F',e	θ 'i,F'
0.825	0.487	0.513	1.733

機械的性質 Mechanical Properties	熱的性質 Thermal Properties
ヌープ硬さ Hk Knoop Hardness 547 (5)	転移点 Tg (°C) Transformation Point 545
ビッカース硬さ Hv Vickers Hardness 542	屈伏点 At (°C) Yielding Point 594
摩耗度 Ha Abrasion 147	線膨張係数 $\alpha (\times 10^{-7} \text{°C}^{-1})$ Thermal Expansion
ヤング率 E ($\times 10^8 \text{N} \cdot \text{m}^{-2}$) Young's Modulus 801	(-30~+70°C) 56 (+100~+300°C) 72
剛性率 G ($\times 10^8 \text{N} \cdot \text{m}^{-2}$) Modulus of Rigidity 318	熱伝導率 $\lambda (\text{W} \cdot \text{m}^{-1} \cdot \text{K}^{-1})$ Thermal Conductivity
ポアソン比 σ Poisson Ratio 0.258	比熱 Cp ($\text{J} \cdot \text{kg}^{-1} \cdot \text{K}^{-1}$) Specific Heat
化学的性質 Chemical Properties	その他 Other Properties
耐水性(粉末法) RW Water Resistance 1	泡 B Bubbles
耐酸性(粉末法) RA Acid Resistance 4	着色度 C Coloration 35/28
耐久性(表面法) DW Chemical Durability 1	比重 S.g Specific Gravity 3.37
備考 Remarks	生産頻度 PF Production frequency

内部透過率 τ Internal Transmittance		
λ (nm)	3mm	10mm
270		
280		
290	0.206	
300	0.301	0.018
310	0.473	0.083
320	0.645	0.233
330	0.776	0.431
340	0.867	0.623
350	0.924	0.770
360	0.959	0.870
370	0.977	0.926
380	0.985	0.952
390	0.989	0.967
400	0.993	0.979
420	0.995	0.985
440	0.996	0.987
460	0.997	0.990
480	0.997	0.992
500	0.998	0.995
550	0.999	0.996
600	0.998	0.996
650	0.998	0.995
700	0.998	0.995
800	0.998	0.995
1060	0.998	0.997
1500	0.998	0.996
2000	0.993	0.977

屈折率の温度係数 Temperature Coefficients of Refractive Index						
	(dn/dT)rel. ($\times 10^{-6} \text{°C}^{-1}$)			(dn/dT)abs. ($\times 10^{-6} \text{°C}^{-1}$)		
(°C)	1548.1	d	g	1548.1	d	g
-40/-20	4.9	5.9	6.9	2.8	3.7	4.7
0/+20	5.8	6.9	8.1	4.3	5.3	6.5
+40/+60	6.0	7.2	8.5	4.8	5.9	7.2

618551 K-SSK4	nd	1.61765	ν d	55.1	nF-nC	0.01121
	ne	1.62032	ν e	54.8	nF'-nC'	0.01132

屈折率 Refractive Indices		
n1548	1548.1	
n1309	1308.5	
nt	1014.0	1.60523
nA'	768.2	1.61042
nr	706.5	1.61234
nC	656.3	1.61426
nC'	643.9	1.61480
nD	589.3	1.61755
nd	587.6	1.61765
ne	546.1	1.62032
nF	486.1	1.62547
nF'	480.0	1.62612
ng	435.8	1.63160
nh	404.7	1.63668
ni	365.0	1.64535

分散式の常数 Constants of Dispersion Formula	
A0	2.5749313
A1	$-1.1981485 \times 10^{-2}$
A2	1.3663757×10^{-2}
A3	9.9687549×10^{-4}
A4	$-9.3565959 \times 10^{-5}$
A5	4.6297330×10^{-6}

dn/dTの分散常数 Constants of Dispersion dn/dT abs.	
D0	1.84×10^{-6}
D1	1.42×10^{-8}
D2	-1.94×10^{-10}
E0	5.13×10^{-7}
E1	7.12×10^{-10}
$\lambda_{TK} (\mu m)$	0.198

部分分散および部分分散比 Partial Dispersions and Relative Partial Dispersions			
nC-nt	nC-nA'	nd-nC	ne-nC
0.00903	0.00384	0.00339	0.00606
θ C,t	θ C,A'	θ d,C	θ e,C
0.806	0.343	0.302	0.541
ng-nd	ng-nF	nh-ng	ni-ng
0.01395	0.00613	0.00508	0.01375
θ g,d	θ g,F(Δ)	θ h,g	θ i,g
1.244	0.547 (-0.0047)	0.453	1.227
nC'-nt	ne-nC'	nF'-ne	ni-nF'
0.00957	0.00552	0.00580	0.01923
θ 'C',t	θ 'e,C'	θ 'F',e	θ 'i,F'
0.845	0.488	0.512	1.699

機械的性質 Mechanical Properties	熱的性質 Thermal Properties
ヌープ硬さ Hk Knoop Hardness 586 (6)	転移点 Tg (°C) Transformation Point 536
ビッカース硬さ Hv Vickers Hardness 591	屈伏点 At (°C) Yielding Point 586
摩耗度 Ha Abrasion 177	線膨張係数 α ($\times 10^{-7} \text{°C}^{-1}$) Thermal Expansion
ヤング率 E ($\times 10^8 \text{N} \cdot \text{m}^{-2}$) Young's Modulus 876	(-30~+70°C) 71 (+100~+300°C) 84
剛性率 G ($\times 10^8 \text{N} \cdot \text{m}^{-2}$) Modulus of Rigidity 352	熱伝導率 λ ($\text{W} \cdot \text{m}^{-1} \cdot \text{K}^{-1}$) Thermal Conductivity
ポアソン比 σ Poisson Ratio 0.244	比熱 Cp ($\text{J} \cdot \text{kg}^{-1} \cdot \text{K}^{-1}$) Specific Heat
化学的性質 Chemical Properties	その他 Other Properties
耐水性(粉末法) RW Water Resistance 1	泡 B Bubbles
耐酸性(粉末法) RA Acid Resistance 4	着色度 C Coloration 34/28
耐久性(表面法) DW Chemical Durability 2	比重 S.g Specific Gravity 3.39
備考 Remarks	生産頻度 PF Production frequency

内部透過率 τ Internal Transmittance		
λ (nm)	3mm	10mm
270	0.426	0.059
280	0.525	0.117
290	0.678	0.274
300	0.799	0.474
310	0.881	0.656
320	0.930	0.787
330	0.959	0.872
340	0.974	0.919
350	0.985	0.951
360	0.990	0.969
370	0.994	0.983
380	0.996	0.987
390	0.997	0.991
400	0.997	0.993
420	0.998	0.994
440	0.998	0.995
460	0.998	0.996
480	0.999	0.997
500	0.999	0.998
550	0.999	0.999
600	0.999	0.999
650	0.999	0.999
700	0.999	0.999
800	0.999	0.999
1060	0.999	0.999
1500	0.999	0.999
2000	0.994	0.983

屈折率の温度係数 Temperature Coefficients of Refractive Index						
	(dn/dT)rel. ($\times 10^{-6} \text{°C}^{-1}$)			(dn/dT)abs. ($\times 10^{-6} \text{°C}^{-1}$)		
(°C)	1548.1	d	g	1548.1	d	g
-40/-20	1.7	2.4	3.2	-0.4	0.2	1.0
0/+20	2.4	3.2	4.1	0.8	1.6	2.4
+40/+60	2.4	3.2	4.3	1.2	2.0	3.0

620498 K-SSK9	nd	1.62012	ν d	49.8	nF-nC	0.01245
	ne	1.62308	ν e	49.5	nF'-nC'	0.01258

屈折率 Refractive Indices		
n1548	1548.1	1.59963
n1309	1308.5	1.60257
nt	1014.0	1.60676
nA'	768.2	1.61221
nr	706.5	1.61429
nC	656.3	1.61639
nC'	643.9	1.61698
nD	589.3	1.62001
nd	587.6	1.62012
ne	546.1	1.62308
nF	486.1	1.62884
nF'	480.0	1.62956
ng	435.8	1.63581
nh	404.7	1.64172
ni	365.0	1.65206

分散式の常数 Constants of Dispersion Formula	
A0	2.5737917
A1	$-9.3452955 \times 10^{-3}$
A2	1.7645209×10^{-2}
A3	3.5765081×10^{-4}
A4	1.1614434×10^{-6}
A5	1.1603400×10^{-6}

dn/dTの分散常数 Constants of Dispersion dn/dT abs.	
D0	-3.89×10^{-6}
D1	1.55×10^{-8}
D2	-1.07×10^{-10}
E0	6.07×10^{-7}
E1	4.29×10^{-10}
$\lambda_{TK} (\mu m)$	0.203

部分分散および部分分散比 Partial Dispersions and Relative Partial Dispersions			
nC-nt	nC-nA'	nd-nC	ne-nC
0.00963	0.00418	0.00373	0.00669
$\theta_{C,t}$	$\theta_{C,A'}$	$\theta_{d,C}$	$\theta_{e,C}$
0.773	0.336	0.300	0.537
ng-nd	ng-nF	nh-ng	ni-ng
0.01569	0.00697	0.00591	0.01625
$\theta_{g,d}$	$\theta_{g,F(\Delta)}$	$\theta_{h,g}$	$\theta_{i,g}$
1.260	0.560 (-0.0004)	0.475	1.305
nC'-nt	ne-nC'	nF'-ne	ni-nF'
0.01022	0.00610	0.00648	0.02250
$\theta'_{C',t}$	$\theta'_{e,C'}$	$\theta'_{F',e}$	$\theta'_{i,F'}$
0.812	0.485	0.515	1.789

機械的性質 Mechanical Properties	熱的性質 Thermal Properties
ヌープ硬さ Hk Knoop Hardness 578 (6)	転移点 Tg (°C) Transformation Point 579
ビッカース硬さ Hv Vickers Hardness 620	屈伏点 At (°C) Yielding Point 626
摩耗度 Ha Abrasion 180	線膨張係数 $\alpha (\times 10^{-7} \text{°C}^{-1})$ Thermal Expansion
ヤング率 E ($\times 10^8 \text{N} \cdot \text{m}^{-2}$) Young's Modulus 818	(-30~+70°C) 83 (+100~+300°C) 98
剛性率 G ($\times 10^8 \text{N} \cdot \text{m}^{-2}$) Modulus of Rigidity 330	熱伝導率 $\lambda (\text{W} \cdot \text{m}^{-1} \cdot \text{K}^{-1})$ Thermal Conductivity
ポアソン比 σ Poisson Ratio 0.240	比熱 Cp ($\text{J} \cdot \text{kg}^{-1} \cdot \text{K}^{-1}$) Specific Heat
化学的性質 Chemical Properties	その他 Other Properties
耐水性(粉末法) RW Water Resistance 2	泡 B Bubbles
耐酸性(粉末法) RA Acid Resistance 3	着色度 C Coloration 38/34
耐久性(表面法) DW Chemical Durability 2	比重 S.g Specific Gravity 3.29
備考 Remarks	生産頻度 PF Production frequency

内部透過率 τ Internal Transmittance		
$\lambda(\text{nm})$	10mm	25mm
270		
280		
290		
300		
310		
320		
330		
340	0.042	
350	0.329	0.062
360	0.650	0.341
370	0.833	0.633
380	0.908	0.786
390	0.943	0.864
400	0.965	0.916
420	0.981	0.954
440	0.985	0.964
460	0.988	0.971
480	0.990	0.975
500	0.991	0.978
550	0.994	0.985
600	0.995	0.989
650	0.997	0.992
700	0.998	0.996
800	0.998	0.996
1060	0.998	0.996
1500	0.998	0.996
2000	0.981	0.954

屈折率の温度係数 Temperature Coefficients of Refractive Index						
	(dn/dT)rel. ($\times 10^{-6} \text{°C}^{-1}$)			(dn/dT)abs. ($\times 10^{-6} \text{°C}^{-1}$)		
(°C)	1548.1	d	g	1548.1	d	g
-40/-20	-0.8	0.0	1.0	-2.9	-2.2	-1.3
0/+20	-0.4	0.5	1.6	-1.9	-1.1	-0.1
+40/+60	-0.2	0.7	1.8	-1.5	-0.6	0.5

624471 K-BaF8	nd	1.62374	ν d	47.1	nF-nC	0.01325
	ne	1.62688	ν e	46.8	nF'-nC'	0.01339

屈折率 Refractive Indices		
n1548	1548.1	1.60119
n1309	1308.5	1.60462
nt	1014.0	1.60934
nA'	768.2	1.61528
nr	706.5	1.61752
nC	656.3	1.61976
nC'	643.9	1.62039
nD	589.3	1.62362
nd	587.6	1.62374
ne	546.1	1.62688
nF	486.1	1.63301
nF'	480.0	1.63378
ng	435.8	1.64049
nh	404.7	1.64688
ni	365.0	1.65819

分散式の常数 Constants of Dispersion Formula	
A0	2.5830562
A1	$-1.1319710 \times 10^{-2}$
A2	1.8817464×10^{-2}
A3	2.7063309×10^{-4}
A4	2.1527561×10^{-5}
A5	7.7761941×10^{-7}

dn/dTの分散常数 Constants of Dispersion dn/dT abs.	
D0	7.30×10^{-7}
D1	1.78×10^{-8}
D2	-2.34×10^{-10}
E0	5.81×10^{-7}
E1	1.81×10^{-11}
$\lambda_{TK} (\mu m)$	0.234

部分分散および部分分散比 Partial Dispersions and Relative Partial Dispersions			
nC-nt	nC-nA'	nd-nC	ne-nC
0.01042	0.00448	0.00398	0.00712
$\theta_{C,t}$	$\theta_{C,A'}$	$\theta_{d,C}$	$\theta_{e,C}$
0.786	0.338	0.300	0.537
ng-nd	ng-nF	nh-ng	ni-ng
0.01675	0.00748	0.00639	0.01770
$\theta_{g,d}$	$\theta_{g,F(\Delta)}$	$\theta_{h,g}$	$\theta_{i,g}$
1.264	0.565 (0.0001)	0.482	1.336
nC'-nt	ne-nC'	nF'-ne	ni-nF'
0.01105	0.00649	0.00690	0.02441
$\theta_{C',t}$	$\theta_{e,C'}$	$\theta_{F',e}$	$\theta_{i,F'}$
0.825	0.485	0.515	1.823

機械的性質 Mechanical Properties	熱的性質 Thermal Properties
ヌープ硬さ Hk Knoop Hardness 604 (6)	転移点 Tg (°C) Transformation Point 504
ビッカース硬さ Hv Vickers Hardness 643	屈伏点 At (°C) Yielding Point 540
摩耗度 Ha Abrasion 140	線膨張係数 $\alpha (\times 10^{-7} \text{°C}^{-1})$ Thermal Expansion
ヤング率 E ($\times 10^8 \text{N} \cdot \text{m}^{-2}$) Young's Modulus 955	(-30~+70°C) 67 (+100~+300°C) 98
剛性率 G ($\times 10^8 \text{N} \cdot \text{m}^{-2}$) Modulus of Rigidity 384	熱伝導率 $\lambda (\text{W} \cdot \text{m}^{-1} \cdot \text{K}^{-1})$ Thermal Conductivity
ポアソン比 σ Poisson Ratio 0.244	比熱 Cp ($\text{J} \cdot \text{kg}^{-1} \cdot \text{K}^{-1}$) Specific Heat
化学的性質 Chemical Properties	その他 Other Properties
耐水性(粉末法) RW Water Resistance 1	泡 B Bubbles
耐酸性(粉末法) RA Acid Resistance 3	着色度 C Coloration 38/34
耐久性(表面法) DW Chemical Durability 1	比重 S.g Specific Gravity 3.02
備考 Remarks	生産頻度 PF Production frequency

内部透過率 τ Internal Transmittance		
$\lambda(\text{nm})$	10mm	25mm
270		
280		
290		
300		
310		
320		
330		
340	0.039	
350	0.292	0.046
360	0.591	0.269
370	0.774	0.527
380	0.873	0.712
390	0.924	0.821
400	0.952	0.885
420	0.973	0.935
440	0.982	0.957
460	0.985	0.963
480	0.989	0.974
500	0.994	0.986
550	0.996	0.990
600	0.996	0.991
650	0.997	0.992
700	0.997	0.993
800	0.997	0.993
1060	0.998	0.996
1500	0.996	0.991
2000	0.977	0.945

屈折率の温度係数 Temperature Coefficients of Refractive Index						
	(dn/dT)rel. ($\times 10^{-6} \text{°C}^{-1}$)			(dn/dT)abs. ($\times 10^{-6} \text{°C}^{-1}$)		
(°C)	1548.1	d	g	1548.1	d	g
-40/-20	0.9	1.8	3.0	-1.2	-0.4	0.8
0/+20	1.8	2.8	4.0	0.3	1.2	2.4
+40/+60	1.9	2.8	4.1	0.7	1.6	2.8

643478 K-BaF9	nd	1.64328	ν d	47.8	nF-nC	0.01347
	ne	1.64648	ν e	47.4	nF'-nC'	0.01363

屈折率 Refractive Indices		
n1548	1548.1	1.62086
n1309	1308.5	1.62417
nt	1014.0	1.62882
nA'	768.2	1.63476
nr	706.5	1.63700
nC	656.3	1.63926
nC'	643.9	1.63989
nD	589.3	1.64316
nd	587.6	1.64328
ne	546.1	1.64648
nF	486.1	1.65273
nF'	480.0	1.65352
ng	435.8	1.66034
nh	404.7	1.66681
ni	365.0	1.67824

分散式の常数 Constants of Dispersion Formula	
A0	2.6455399
A1	$-1.0990833 \times 10^{-2}$
A2	1.8955207×10^{-2}
A3	4.0800743×10^{-4}
A4	9.9346340×10^{-6}
A5	9.3197902×10^{-7}

dn/dTの分散常数 Constants of Dispersion dn/dT abs.	
D0	-4.02×10^{-7}
D1	1.44×10^{-8}
D2	-1.41×10^{-10}
E0	4.98×10^{-7}
E1	5.81×10^{-10}
$\lambda_{TK} (\mu m)$	0.243

部分分散および部分分散比 Partial Dispersions and Relative Partial Dispersions			
nC-nt	nC-nA'	nd-nC	ne-nC
0.01044	0.00450	0.00402	0.00722
$\theta_{C,t}$	$\theta_{C,A'}$	$\theta_{d,C}$	$\theta_{e,C}$
0.775	0.334	0.298	0.536
ng-nd	ng-nF	nh-ng	ni-ng
0.01706	0.00761	0.00647	0.01790
$\theta_{g,d}$	$\theta_{g,F(\Delta)}$	$\theta_{h,g}$	$\theta_{i,g}$
1.267	0.565 (0.0012)	0.480	1.329
nC'-nt	ne-nC'	nF'-ne	ni-nF'
0.01107	0.00659	0.00704	0.02472
$\theta_{C',t}$	$\theta_{e,C'}$	$\theta_{F',e}$	$\theta_{i,F'}$
0.812	0.483	0.517	1.814

機械的性質 Mechanical Properties	熱的性質 Thermal Properties
ヌープ硬さ Hk Knoop Hardness 586 (6)	転移点 Tg (°C) Transformation Point 618
ビッカース硬さ Hv Vickers Hardness 624	屈伏点 At (°C) Yielding Point 661
摩耗度 Ha Abrasion 150	線膨張係数 $\alpha (\times 10^{-7} \text{°C}^{-1})$ Thermal Expansion
ヤング率 E ($\times 10^8 \text{N} \cdot \text{m}^{-2}$) Young's Modulus 877	(-30~+70°C) 66 (+100~+300°C) 82
剛性率 G ($\times 10^8 \text{N} \cdot \text{m}^{-2}$) Modulus of Rigidity 349	熱伝導率 $\lambda (\text{W} \cdot \text{m}^{-1} \cdot \text{K}^{-1})$ Thermal Conductivity
ポアソン比 σ Poisson Ratio 0.258	比熱 Cp ($\text{J} \cdot \text{kg}^{-1} \cdot \text{K}^{-1}$) Specific Heat
化学的性質 Chemical Properties	その他 Other Properties
耐水性(粉末法) RW Water Resistance 1	泡 B Bubbles
耐酸性(粉末法) RA Acid Resistance 2	着色度 C Coloration 40/35
耐久性(表面法) DW Chemical Durability 1	比重 S.g Specific Gravity 3.44
備考 Remarks	生産頻度 PF Production frequency

内部透過率 τ Internal Transmittance		
$\lambda(\text{nm})$	10mm	25mm
270		
280		
290		
300		
310		
320		
330		
340		
350	0.114	
360	0.383	0.091
370	0.630	0.315
380	0.790	0.554
390	0.879	0.725
400	0.928	0.830
420	0.965	0.915
440	0.978	0.947
460	0.983	0.959
480	0.988	0.971
500	0.991	0.978
550	0.996	0.991
600	0.996	0.990
650	0.996	0.988
700	0.997	0.993
800	0.998	0.996
1060	0.998	0.996
1500	0.998	0.996
2000	0.980	0.951

屈折率の温度係数 Temperature Coefficients of Refractive Index						
	(dn/dT)rel. ($\times 10^{-6} \text{°C}^{-1}$)			(dn/dT)abs. ($\times 10^{-6} \text{°C}^{-1}$)		
(°C)	1548.1	d	g	1548.1	d	g
-40/-20	0.8	1.5	2.5	-1.4	-0.7	0.2
0/+20	1.3	2.1	3.3	-0.3	0.5	1.6
+40/+60	1.4	2.3	3.5	0.2	1.0	2.2

683445 K-BaFn1	nd	1.68250	ν d	44.5	nF-nC	0.01535
	ne	1.68615	ν e	44.2	nF'-nC'	0.01554

屈折率 Refractive Indices		
n1548	1548.1	1.65773
n1309	1308.5	1.66125
nt	1014.0	1.66628
nA'	768.2	1.67287
nr	706.5	1.67539
nC	656.3	1.67794
nC'	643.9	1.67866
nD	589.3	1.68237
nd	587.6	1.68250
ne	546.1	1.68615
nF	486.1	1.69329
nF'	480.0	1.69420
ng	435.8	1.70203
nh	404.7	1.70950
ni	365.0	1.72285

分散式の常数 Constants of Dispersion Formula	
A0	2.7669297
A1	$-1.1669996 \times 10^{-2}$
A2	2.1519840×10^{-2}
A3	7.0810281×10^{-4}
A4	$-2.4958220 \times 10^{-5}$
A5	3.7747946×10^{-6}

dn/dTの分散常数 Constants of Dispersion dn/dT abs.	
D0	-8.23×10^{-7}
D1	1.72×10^{-8}
D2	-1.68×10^{-10}
E0	5.40×10^{-7}
E1	8.98×10^{-10}
$\lambda_{TK} (\mu m)$	0.251

部分分散および部分分散比 Partial Dispersions and Relative Partial Dispersions			
nC-nt	nC-nA'	nd-nC	ne-nC
0.01166	0.00507	0.00456	0.00821
$\theta_{C,t}$	$\theta_{C,A'}$	$\theta_{d,C}$	$\theta_{e,C}$
0.760	0.330	0.297	0.535
ng-nd	ng-nF	nh-ng	ni-ng
0.01953	0.00874	0.00747	0.02082
$\theta_{g,d}$	$\theta_{g,F(\Delta)}$	$\theta_{h,g}$	$\theta_{i,g}$
1.272	0.569 (0.0001)	0.487	1.356
nC'-nt	ne-nC'	nF'-ne	ni-nF'
0.01238	0.00749	0.00805	0.02865
$\theta'_{C',t}$	$\theta'_{e,C'}$	$\theta'_{F',e}$	$\theta'_{i,F'}$
0.797	0.482	0.518	1.844

機械的性質 Mechanical Properties	熱的性質 Thermal Properties
ヌープ硬さ Hk Knoop Hardness 552 (6)	転移点 Tg (°C) Transformation Point 601
ビッカース硬さ Hv Vickers Hardness 584	屈伏点 At (°C) Yielding Point 645
摩耗度 Ha Abrasion 168	線膨張係数 $\alpha (\times 10^{-7} \text{°C}^{-1})$ Thermal Expansion
ヤング率 E ($\times 10^8 \text{N} \cdot \text{m}^{-2}$) Young's Modulus 901	(-30~+70°C) 73 (+100~+300°C) 84
剛性率 G ($\times 10^8 \text{N} \cdot \text{m}^{-2}$) Modulus of Rigidity 358	熱伝導率 $\lambda (\text{W} \cdot \text{m}^{-1} \cdot \text{K}^{-1})$ Thermal Conductivity
ポアソン比 σ Poisson Ratio 0.259	比熱 Cp ($\text{J} \cdot \text{kg}^{-1} \cdot \text{K}^{-1}$) Specific Heat
化学的性質 Chemical Properties	その他 Other Properties
耐水性(粉末法) RW Water Resistance 1	泡 B Bubbles
耐酸性(粉末法) RA Acid Resistance 4	着色度 C Coloration 40/35
耐久性(表面法) DW Chemical Durability 1	比重 S.g Specific Gravity 3.62
備考 Remarks	生産頻度 PF Production frequency

内部透過率 τ Internal Transmittance		
$\lambda(\text{nm})$	3mm	10mm
270		
280		
290		
300		
310		
320		
330		
340	0.197	
350	0.499	0.099
360	0.738	0.364
370	0.864	0.617
380	0.925	0.773
390	0.956	0.863
400	0.973	0.913
420	0.986	0.957
440	0.991	0.972
460	0.993	0.979
480	0.995	0.986
500	0.997	0.990
550	0.998	0.995
600	0.998	0.996
650	0.999	0.997
700	0.999	0.997
800	0.999	0.998
1060	0.999	0.999
1500	0.999	0.998
2000	0.993	0.979

屈折率の温度係数 Temperature Coefficients of Refractive Index						
	(dn/dT)rel. ($\times 10^{-6} \text{°C}^{-1}$)			(dn/dT)abs. ($\times 10^{-6} \text{°C}^{-1}$)		
(°C)	1548.1	d	g	1548.1	d	g
-40/-20	0.3	1.1	2.2	-1.9	-1.2	-0.1
0/+20	1.1	2.0	3.3	-0.5	0.3	1.6
+40/+60	1.3	2.3	3.8	0.0	1.0	2.5

664492 K-BaFn3	nd	1.66422	ν d	49.2	nF-nC	0.01350
	ne	1.66743	ν e	48.9	nF'-nC'	0.01365

屈折率 Refractive Indices		
n1548	1548.1	1.64186
n1309	1308.5	1.64510
nt	1014.0	1.64968
nA'	768.2	1.65563
nr	706.5	1.65789
nC	656.3	1.66017
nC'	643.9	1.66081
nD	589.3	1.66410
nd	587.6	1.66422
ne	546.1	1.66743
nF	486.1	1.67367
nF'	480.0	1.67446
ng	435.8	1.68122
nh	404.7	1.68760
ni	365.0	1.69874

分散式の常数 Constants of Dispersion Formula	
A0	2.7128944
A1	$-1.0619935 \times 10^{-2}$
A2	1.9653632×10^{-2}
A3	4.0051165×10^{-4}
A4	1.1626539×10^{-6}
A5	1.1579589×10^{-6}

dn/dTの分散常数 Constants of Dispersion dn/dT abs.	
D0	7.44×10^{-8}
D1	1.27×10^{-8}
D2	-3.11×10^{-10}
E0	5.72×10^{-7}
E1	5.44×10^{-10}
$\lambda_{TK} (\mu m)$	0.214

部分分散および部分分散比 Partial Dispersions and Relative Partial Dispersions			
nC-nt	nC-nA'	nd-nC	ne-nC
0.01049	0.00454	0.00405	0.00726
$\theta_{C,t}$	$\theta_{C,A'}$	$\theta_{d,C}$	$\theta_{e,C}$
0.777	0.336	0.300	0.538
ng-nd	ng-nF	nh-ng	ni-ng
0.01700	0.00755	0.00638	0.01752
$\theta_{g,d}$	$\theta_{g,F(\Delta)}$	$\theta_{h,g}$	$\theta_{i,g}$
1.259	0.559 (-0.0024)	0.473	1.298
nC'-nt	ne-nC'	nF'-ne	ni-nF'
0.01113	0.00662	0.00703	0.02428
$\theta'_{C',t}$	$\theta'_{e,C'}$	$\theta'_{F',e}$	$\theta'_{i,F'}$
0.815	0.485	0.515	1.779

機械的性質 Mechanical Properties	熱的性質 Thermal Properties
ヌープ硬さ Hk Knoop Hardness 554 (6)	転移点 Tg (°C) Transformation Point 616
ビッカース硬さ Hv Vickers Hardness 584	屈伏点 At (°C) Yielding Point 657
摩耗度 Ha Abrasion 174	線膨張係数 $\alpha (\times 10^{-7} \text{°C}^{-1})$ Thermal Expansion
ヤング率 E ($\times 10^8 \text{N} \cdot \text{m}^{-2}$) Young's Modulus 911	(-30~+70°C) 70 (+100~+300°C) 85
剛性率 G ($\times 10^8 \text{N} \cdot \text{m}^{-2}$) Modulus of Rigidity 358	熱伝導率 $\lambda (\text{W} \cdot \text{m}^{-1} \cdot \text{K}^{-1})$ Thermal Conductivity
ポアソン比 σ Poisson Ratio 0.271	比熱 Cp ($\text{J} \cdot \text{kg}^{-1} \cdot \text{K}^{-1}$) Specific Heat
化学的性質 Chemical Properties	その他 Other Properties
耐水性(粉末法) RW Water Resistance 1	泡 B Bubbles
耐酸性(粉末法) RA Acid Resistance 4	着色度 C Coloration 39/34
耐久性(表面法) DW Chemical Durability 1	比重 S.g Specific Gravity 3.62
備考 Remarks	生産頻度 PF Production frequency

内部透過率 τ Internal Transmittance		
$\lambda(\text{nm})$	10mm	25mm
270		
280		
290		
300		
310		
320		
330		
340	0.070	
350	0.338	0.066
360	0.615	0.297
370	0.788	0.551
380	0.880	0.728
390	0.930	0.834
400	0.956	0.893
420	0.974	0.937
440	0.981	0.953
460	0.986	0.966
480	0.990	0.976
500	0.993	0.983
550	0.995	0.989
600	0.996	0.991
650	0.998	0.994
700	0.998	0.996
800	0.998	0.996
1060	0.998	0.996
1500	0.997	0.992
2000	0.975	0.940

屈折率の温度係数 Temperature Coefficients of Refractive Index						
	(dn/dT)rel. ($\times 10^{-6} \text{°C}^{-1}$)			(dn/dT)abs. ($\times 10^{-6} \text{°C}^{-1}$)		
(°C)	1548.1	d	g	1548.1	d	g
-40/-20	0.5	1.3	2.3	-1.7	-1.0	0.0
0/+20	1.6	2.5	3.7	0.0	0.9	2.0
+40/+60	1.4	2.3	3.6	0.1	1.1	2.3

651383 K-BaSF4	nd	1.65128	ν d	38.3	nF-nC	0.01699
	ne	1.65531	ν e	38.1	nF'-nC'	0.01722

屈折率 Refractive Indices		
n1548	1548.1	1.62474
n1309	1308.5	1.62840
nt	1014.0	1.63373
nA'	768.2	1.64079
nr	706.5	1.64351
nC	656.3	1.64628
nC'	643.9	1.64706
nD	589.3	1.65113
nd	587.6	1.65128
ne	546.1	1.65531
nF	486.1	1.66327
nF'	480.0	1.66428
ng	435.8	1.67310
nh	404.7	1.68161
ni	365.0	1.69717

分散式の常数 Constants of Dispersion Formula	
A0	2.6590501
A1	$-1.1944106 \times 10^{-2}$
A2	2.1856290×10^{-2}
A3	1.1761807×10^{-3}
A4	$-7.8567029 \times 10^{-5}$
A5	8.1413835×10^{-6}

dn/dTの分散常数 Constants of Dispersion dn/dT abs.	
D0	1.95×10^{-6}
D1	1.40×10^{-8}
D2	-2.27×10^{-10}
E0	6.84×10^{-7}
E1	1.13×10^{-9}
$\lambda_{TK} (\mu m)$	0.259

部分分散および部分分散比 Partial Dispersions and Relative Partial Dispersions			
nC-nt	nC-nA'	nd-nC	ne-nC
0.01255	0.00549	0.00500	0.00903
$\theta_{C,t}$	$\theta_{C,A'}$	$\theta_{d,C}$	$\theta_{e,C}$
0.739	0.323	0.294	0.531
ng-nd	ng-nF	nh-ng	ni-ng
0.02182	0.00983	0.00851	0.02407
$\theta_{g,d}$	$\theta_{g,F(\Delta)}$	$\theta_{h,g}$	$\theta_{i,g}$
1.284	0.579 (-0.0007)	0.501	1.417
nC'-nt	ne-nC'	nF'-ne	ni-nF'
0.01333	0.00825	0.00897	0.03289
$\theta'_{C',t}$	$\theta'_{e,C'}$	$\theta'_{F',e}$	$\theta'_{i,F'}$
0.774	0.479	0.521	1.910

機械的性質 Mechanical Properties	熱的性質 Thermal Properties
ヌープ硬さ Hk Knoop Hardness 586 (6)	転移点 Tg (°C) Transformation Point 513
ビッカース硬さ Hv Vickers Hardness 590	屈伏点 At (°C) Yielding Point 553
摩耗度 Ha Abrasion 154	線膨張係数 $\alpha (\times 10^{-7} \text{°C}^{-1})$ Thermal Expansion 71
ヤング率 E ($\times 10^8 \text{N} \cdot \text{m}^{-2}$) Young's Modulus 887	(-30~+70°C) 71 (+100~+300°C) 92
剛性率 G ($\times 10^8 \text{N} \cdot \text{m}^{-2}$) Modulus of Rigidity 362	熱伝導率 $\lambda (\text{W} \cdot \text{m}^{-1} \cdot \text{K}^{-1})$ Thermal Conductivity
ポアソン比 σ Poisson Ratio 0.223	比熱 Cp ($\text{J} \cdot \text{kg}^{-1} \cdot \text{K}^{-1}$) Specific Heat
化学的性質 Chemical Properties	その他 Other Properties
耐水性(粉末法) RW Water Resistance 1	泡 B Bubbles
耐酸性(粉末法) RA Acid Resistance 1	着色度 C Coloration 39/35
耐久性(表面法) DW Chemical Durability 1	比重 S.g Specific Gravity 2.96
備考 Remarks	生産頻度 PF Production frequency

内部透過率 τ Internal Transmittance		
$\lambda(\text{nm})$	10mm	25mm
270		
280		
290		
300		
310		
320		
330		
340	0.001	
350	0.103	0.003
360	0.464	0.146
370	0.738	0.468
380	0.860	0.687
390	0.919	0.810
400	0.948	0.876
420	0.971	0.931
440	0.981	0.953
460	0.985	0.964
480	0.989	0.974
500	0.992	0.981
550	0.998	0.995
600	0.998	0.995
650	0.998	0.996
700	0.998	0.997
800	0.998	0.997
1060	0.998	0.997
1500	0.998	0.997
2000	0.983	0.960

屈折率の温度係数 Temperature Coefficients of Refractive Index						
	(dn/dT)rel. ($\times 10^{-6} \text{°C}^{-1}$)			(dn/dT)abs. ($\times 10^{-6} \text{°C}^{-1}$)		
(°C)	1548.1	d	g	1548.1	d	g
-40/-20	1.7	2.7	4.2	-0.5	0.5	1.9
0/+20	2.6	3.7	5.5	1.0	2.1	3.8
+40/+60	2.5	3.8	5.8	1.3	2.6	4.5

603425 K-BaSF5	nd	1.60323	ν d	42.5	nF-nC	0.01419
	ne	1.60660	ν e	42.2	nF'-nC'	0.01436

屈折率 Refractive Indices		
n1548	1548.1	1.57980
n1309	1308.5	1.58330
nt	1014.0	1.58821
nA'	768.2	1.59438
nr	706.5	1.59669
nC	656.3	1.59903
nC'	643.9	1.59969
nD	589.3	1.60311
nd	587.6	1.60323
ne	546.1	1.60660
nF	486.1	1.61322
nF'	480.0	1.61405
ng	435.8	1.62132
nh	404.7	1.62828
ni	365.0	1.64091

分散式の常数 Constants of Dispersion Formula	
A0	2.5165762
A1	$-1.1837790 \times 10^{-2}$
A2	1.7631594×10^{-2}
A3	9.5834052×10^{-4}
A4	$-6.7623905 \times 10^{-5}$
A5	6.2543393×10^{-6}

dn/dTの分散常数 Constants of Dispersion dn/dT abs.	
D0	-1.33×10^{-6}
D1	1.61×10^{-8}
D2	-2.30×10^{-10}
E0	5.78×10^{-7}
E1	6.96×10^{-10}
$\lambda_{TK} (\mu m)$	0.262

部分分散および部分分散比 Partial Dispersions and Relative Partial Dispersions			
nC-nt	nC-nA'	nd-nC	ne-nC
0.01082	0.00465	0.00420	0.00757
$\theta_{C,t}$	$\theta_{C,A'}$	$\theta_{d,C}$	$\theta_{e,C}$
0.763	0.328	0.296	0.533
ng-nd	ng-nF	nh-ng	ni-ng
0.01809	0.00810	0.00696	0.01959
$\theta_{g,d}$	$\theta_{g,F(\Delta)}$	$\theta_{h,g}$	$\theta_{i,g}$
1.275	0.571 (-0.0017)	0.490	1.381
nC'-nt	ne-nC'	nF'-ne	ni-nF'
0.01148	0.00691	0.00745	0.02686
$\theta_{C',t}$	$\theta_{e,C'}$	$\theta_{F',e}$	$\theta_{i,F'}$
0.799	0.481	0.519	1.870

機械的性質 Mechanical Properties	熱的性質 Thermal Properties
ヌープ硬さ Hk Knoop Hardness 578 (6)	転移点 Tg (°C) Transformation Point 495
ビッカース硬さ Hv Vickers Hardness 609	屈伏点 At (°C) Yielding Point 531
摩耗度 Ha Abrasion 160	線膨張係数 $\alpha (\times 10^{-7} \text{°C}^{-1})$ Thermal Expansion 79
ヤング率 E ($\times 10^8 \text{N} \cdot \text{m}^{-2}$) Young's Modulus 838	(-30~+70°C) 79 (+100~+300°C) 102
剛性率 G ($\times 10^8 \text{N} \cdot \text{m}^{-2}$) Modulus of Rigidity 343	熱伝導率 $\lambda (\text{W} \cdot \text{m}^{-1} \cdot \text{K}^{-1})$ Thermal Conductivity
ポアソン比 σ Poisson Ratio 0.222	比熱 Cp ($\text{J} \cdot \text{kg}^{-1} \cdot \text{K}^{-1}$) Specific Heat
化学的性質 Chemical Properties	その他 Other Properties
耐水性(粉末法) RW Water Resistance 2	泡 B Bubbles
耐酸性(粉末法) RA Acid Resistance 3	着色度 C Coloration 38/35
耐久性(表面法) DW Chemical Durability 2	比重 S.g Specific Gravity 2.71
備考 Remarks	生産頻度 PF Production frequency

内部透過率 τ Internal Transmittance		
$\lambda(\text{nm})$	10mm	25mm
270		
280		
290		
300		
310		
320		
330		
340	0.002	
350	0.119	0.004
360	0.486	0.165
370	0.752	0.490
380	0.871	0.709
390	0.926	0.825
400	0.953	0.888
420	0.975	0.940
440	0.985	0.964
460	0.989	0.973
480	0.992	0.981
500	0.995	0.987
550	0.997	0.993
600	0.998	0.995
650	0.998	0.996
700	0.998	0.998
800	0.998	0.998
1060	0.998	0.998
1500	0.995	0.987
2000	0.971	0.930

屈折率の温度係数 Temperature Coefficients of Refractive Index						
	(dn/dT)rel. ($\times 10^{-6} \text{°C}^{-1}$)			(dn/dT)abs. ($\times 10^{-6} \text{°C}^{-1}$)		
(°C)	1548.1	d	g	1548.1	d	g
-40/-20	0.0	0.8	2.0	-2.1	-1.4	-0.2
0/+20	0.9	1.8	3.1	-0.7	0.2	1.5
+40/+60	0.9	1.8	3.3	-0.3	0.6	2.1

643581 K-LaK6	nd	1.64250	ν d	58.1	nF-nC	0.01106
	ne	1.64514	ν e	57.9	nF'-nC'	0.01115

屈折率 Refractive Indices		
n1548	1548.1	1.62242
n1309	1308.5	1.62568
nt	1014.0	1.63008
nA'	768.2	1.63530
nr	706.5	1.63723
nC	656.3	1.63914
nC'	643.9	1.63968
nD	589.3	1.64240
nd	587.6	1.64250
ne	546.1	1.64514
nF	486.1	1.65020
nF'	480.0	1.65083
ng	435.8	1.65622
nh	404.7	1.66122
ni	365.0	1.66963

分散式の常数 Constants of Dispersion Formula	
A0	2.6532657
A1	$-1.1570116 \times 10^{-2}$
A2	1.5955637×10^{-2}
A3	2.3811283×10^{-4}
A4	1.7165459×10^{-5}
A5	$-1.4129709 \times 10^{-6}$

dn/dTの分散常数 Constants of Dispersion dn/dT abs.	
D0	-2.11×10^{-6}
D1	1.88×10^{-8}
D2	-1.93×10^{-10}
E0	4.01×10^{-7}
E1	3.43×10^{-10}
$\lambda_{TK} (\mu m)$	0.195

部分分散および部分分散比 Partial Dispersions and Relative Partial Dispersions			
nC-nt	nC-nA'	nd-nC	ne-nC
0.00906	0.00384	0.00336	0.00600
$\theta_{C,t}$	$\theta_{C,A'}$	$\theta_{d,C}$	$\theta_{e,C}$
0.819	0.347	0.304	0.542
ng-nd	ng-nF	nh-ng	ni-ng
0.01372	0.00602	0.00500	0.01341
$\theta_{g,d}$	$\theta_{g,F(\Delta)}$	$\theta_{h,g}$	$\theta_{i,g}$
1.241	0.544 (-0.0024)	0.452	1.212
nC'-nt	ne-nC'	nF'-ne	ni-nF'
0.00960	0.00546	0.00569	0.01880
$\theta'_{C',t}$	$\theta'_{e,C'}$	$\theta'_{F',e}$	$\theta'_{i,F'}$
0.861	0.490	0.510	1.686

機械的性質 Mechanical Properties	熱的性質 Thermal Properties
ヌープ硬さ Hk Knoop Hardness 498 (5)	転移点 Tg (°C) Transformation Point 646
ビッカース硬さ Hv Vickers Hardness 570	屈伏点 At (°C) Yielding Point 681
摩耗度 Ha Abrasion 170	線膨張係数 $\alpha (\times 10^{-7} \text{°C}^{-1})$ Thermal Expansion
ヤング率 E ($\times 10^8 \text{N} \cdot \text{m}^{-2}$) Young's Modulus 868	(-30~+70°C) 62 (+100~+300°C) 80
剛性率 G ($\times 10^8 \text{N} \cdot \text{m}^{-2}$) Modulus of Rigidity 345	熱伝導率 $\lambda (\text{W} \cdot \text{m}^{-1} \cdot \text{K}^{-1})$ Thermal Conductivity
ポアソン比 σ Poisson Ratio 0.257	比熱 Cp ($\text{J} \cdot \text{kg}^{-1} \cdot \text{K}^{-1}$) Specific Heat
化学的性質 Chemical Properties	その他 Other Properties
耐水性(粉末法) RW Water Resistance 3	泡 B Bubbles B
耐酸性(粉末法) RA Acid Resistance 4	着色度 C Coloration 36/30
耐久性(表面法) DW Chemical Durability	比重 S.g Specific Gravity 3.73
備考 Remarks	生産頻度 PF Production frequency

内部透過率 τ Internal Transmittance		
$\lambda(\text{nm})$	10mm	25mm
270		
280		
290		
300	0.086	
310	0.289	0.045
320	0.510	0.186
330	0.694	0.402
340	0.812	0.595
350	0.887	0.742
360	0.932	0.838
370	0.957	0.896
380	0.971	0.930
390	0.980	0.950
400	0.982	0.957
420	0.987	0.968
440	0.987	0.968
460	0.990	0.975
480	0.994	0.985
500	0.994	0.985
550	0.994	0.985
600	0.997	0.992
650	0.997	0.992
700	0.998	0.996
800	0.998	0.996
1060	0.998	0.996
1500	0.997	0.992
2000	0.970	0.920

屈折率の温度係数 Temperature Coefficients of Refractive Index						
	(dn/dT)rel. ($\times 10^{-6} \text{°C}^{-1}$)			(dn/dT)abs. ($\times 10^{-6} \text{°C}^{-1}$)		
(°C)	1548.1	d	g	1548.1	d	g
-40/-20	-0.5	0.0	0.7	-2.7	-2.2	-1.6
0/+20	0.4	1.0	1.7	-1.2	-0.7	0.0
+40/+60	0.6	1.2	2.0	-0.7	-0.1	0.7

652583 K-LaK7	nd	1.65160	ν d	58.3	nF-nC	0.01118
	ne	1.65427	ν e	58.1	nF'-nC'	0.01127

屈折率 Refractive Indices		
n1548	1548.1	1.63128
n1309	1308.5	1.63460
nt	1014.0	1.63907
nA'	768.2	1.64432
nr	706.5	1.64626
nC	656.3	1.64820
nC'	643.9	1.64875
nD	589.3	1.65150
nd	587.6	1.65160
ne	546.1	1.65427
nF	486.1	1.65938
nF'	480.0	1.66002
ng	435.8	1.66546
nh	404.7	1.67050
ni	365.0	1.67909

分散式の常数 Constants of Dispersion Formula	
A0	2.6835737
A1	$-1.2086498 \times 10^{-2}$
A2	1.5193489×10^{-2}
A3	6.4847987×10^{-4}
A4	$-5.2423893 \times 10^{-5}$
A5	2.8301452×10^{-6}

dn/dTの分散常数 Constants of Dispersion dn/dT abs.	
D0	-2.13×10^{-6}
D1	1.62×10^{-8}
D2	-5.04×10^{-11}
E0	3.71×10^{-7}
E1	6.15×10^{-10}
$\lambda_{TK} (\mu m)$	0.214

部分分散および部分分散比 Partial Dispersions and Relative Partial Dispersions			
nC-nt	nC-nA'	nd-nC	ne-nC
0.00913	0.00388	0.00340	0.00607
θ C,t	θ C,A'	θ d,C	θ e,C
0.817	0.347	0.304	0.543
ng-nd	ng-nF	nh-ng	ni-ng
0.01386	0.00608	0.00504	0.01363
θ g,d	θ g,F(Δ)	θ h,g	θ i,g
1.240	0.544 (-0.0021)	0.451	1.219
nC'-nt	ne-nC'	nF'-ne	ni-nF'
0.00968	0.00552	0.00575	0.01907
θ 'C',t	θ 'e,C'	θ 'F',e	θ 'i,F'
0.859	0.490	0.510	1.692

機械的性質 Mechanical Properties	熱的性質 Thermal Properties
ヌープ硬さ Hk Knoop Hardness 484 (5)	転移点 Tg (°C) Transformation Point 645
ビッカース硬さ Hv Vickers Hardness 500	屈伏点 At (°C) Yielding Point 674
摩耗度 Ha Abrasion 150	線膨張係数 $\alpha (\times 10^{-7} \text{°C}^{-1})$ Thermal Expansion
ヤング率 E ($\times 10^8 \text{N} \cdot \text{m}^{-2}$) Young's Modulus 888	(-30~+70°C) 68 (+100~+300°C) 84
剛性率 G ($\times 10^8 \text{N} \cdot \text{m}^{-2}$) Modulus of Rigidity 351	熱伝導率 $\lambda (\text{W} \cdot \text{m}^{-1} \cdot \text{K}^{-1})$ Thermal Conductivity
ポアソン比 σ Poisson Ratio 0.264	比熱 Cp ($\text{J} \cdot \text{kg}^{-1} \cdot \text{K}^{-1}$) Specific Heat
化学的性質 Chemical Properties	その他 Other Properties
耐水性(粉末法) RW Water Resistance 3	泡 B Bubbles
耐酸性(粉末法) RA Acid Resistance 5	着色度 C Coloration 36/30
耐久性(表面法) DW Chemical Durability 2	比重 S.g Specific Gravity 3.76
備考 Remarks	生産頻度 PF Production frequency

内部透過率 τ Internal Transmittance		
λ (nm)	10mm	25mm
270		
280		
290	0.010	
300	0.066	
310	0.196	0.017
320	0.371	0.084
330	0.558	0.232
340	0.711	0.427
350	0.819	0.608
360	0.891	0.751
370	0.934	0.845
380	0.957	0.896
390	0.971	0.930
400	0.978	0.947
420	0.985	0.964
440	0.988	0.971
460	0.990	0.975
480	0.992	0.982
500	0.994	0.985
550	0.994	0.985
600	0.994	0.985
650	0.994	0.985
700	0.997	0.992
800	0.998	0.996
1060	0.998	0.996
1500	0.997	0.992
2000	0.971	0.930

屈折率の温度係数 Temperature Coefficients of Refractive Index						
	(dn/dT)rel. ($\times 10^{-6} \text{°C}^{-1}$)			(dn/dT)abs. ($\times 10^{-6} \text{°C}^{-1}$)		
(°C)	1548.1	d	g	1548.1	d	g
-40/-20	0.1	0.6	1.2	-2.0	-1.6	-1.1
0/+20	0.4	1.0	1.7	-1.2	-0.7	0.0
+40/+60	0.7	1.3	2.1	-0.6	0.0	0.8

713539 K-LaK8	nd	1.71300	ν d	53.9	nF-nC	0.01323
	ne	1.71616	ν e	53.7	nF'-nC'	0.01334

屈折率 Refractive Indices		
n1548	1548.1	1.68876
n1309	1308.5	1.69276
nt	1014.0	1.69811
nA'	768.2	1.70439
nr	706.5	1.70670
nC	656.3	1.70898
nC'	643.9	1.70963
nD	589.3	1.71289
nd	587.6	1.71300
ne	546.1	1.71616
nF	486.1	1.72221
nF'	480.0	1.72297
ng	435.8	1.72944
nh	404.7	1.73545
ni	365.0	1.74572

分散式の常数 Constants of Dispersion Formula	
A0	2.8797142
A1	$-1.5009518 \times 10^{-2}$
A2	1.9337820×10^{-2}
A3	4.8379963×10^{-4}
A4	$-1.1367908 \times 10^{-5}$
A5	7.0484275×10^{-7}

dn/dTの分散常数 Constants of Dispersion dn/dT abs.	
D0	9.91×10^{-7}
D1	1.30×10^{-8}
D2	-2.26×10^{-10}
E0	5.21×10^{-7}
E1	4.99×10^{-10}
$\lambda_{TK} (\mu m)$	0.162

部分分散および部分分散比 Partial Dispersions and Relative Partial Dispersions			
nC-nt	nC-nA'	nd-nC	ne-nC
0.01087	0.00459	0.00402	0.00718
$\theta_{C,t}$	$\theta_{C,A'}$	$\theta_{d,C}$	$\theta_{e,C}$
0.822	0.347	0.304	0.543
ng-nd	ng-nF	nh-ng	ni-ng
0.01644	0.00723	0.00601	0.01628
$\theta_{g,d}$	$\theta_{g,F(\Delta)}$	$\theta_{h,g}$	$\theta_{i,g}$
1.243	0.546 (-0.0075)	0.454	1.231
nC'-nt	ne-nC'	nF'-ne	ni-nF'
0.01152	0.00653	0.00681	0.02275
$\theta_{C',t}$	$\theta_{e,C'}$	$\theta_{F',e}$	$\theta_{i,F'}$
0.864	0.490	0.510	1.705

機械的性質 Mechanical Properties	熱的性質 Thermal Properties
ヌープ硬さ Hk Knoop Hardness 746 (7)	転移点 Tg (°C) Transformation Point 660
ビッカース硬さ Hv Vickers Hardness 756	屈伏点 At (°C) Yielding Point 683
摩耗度 Ha Abrasion 70	線膨張係数 $\alpha (\times 10^{-7} \text{°C}^{-1})$ Thermal Expansion
ヤング率 E ($\times 10^8 \text{N} \cdot \text{m}^{-2}$) Young's Modulus 1190	(-30~+70°C) 49 (+100~+300°C) 75
剛性率 G ($\times 10^8 \text{N} \cdot \text{m}^{-2}$) Modulus of Rigidity 459	熱伝導率 $\lambda (\text{W} \cdot \text{m}^{-1} \cdot \text{K}^{-1})$ Thermal Conductivity
ポアソン比 σ Poisson Ratio 0.296	比熱 Cp ($\text{J} \cdot \text{kg}^{-1} \cdot \text{K}^{-1}$) Specific Heat
化学的性質 Chemical Properties	その他 Other Properties
耐水性(粉末法) RW Water Resistance 1	泡 B Bubbles
耐酸性(粉末法) RA Acid Resistance 4	着色度 C Coloration 38/31
耐久性(表面法) DW Chemical Durability 1	比重 S.g Specific Gravity 3.79
備考 Remarks	生産頻度 PF Production frequency

内部透過率 τ Internal Transmittance		
$\lambda(\text{nm})$	10mm	25mm
270		
280		
290		
300		
310	0.037	
320	0.126	
330	0.270	0.037
340	0.442	0.130
350	0.606	0.286
360	0.743	0.477
370	0.835	0.638
380	0.894	0.756
390	0.929	0.832
400	0.948	0.877
420	0.967	0.920
440	0.974	0.937
460	0.977	0.944
480	0.982	0.957
500	0.985	0.964
550	0.988	0.971
600	0.990	0.975
650	0.991	0.978
700	0.995	0.989
800	0.998	0.996
1060	0.998	0.996
1500	0.998	0.996
2000	0.971	0.930

屈折率の温度係数 Temperature Coefficients of Refractive Index						
	(dn/dT)rel. ($\times 10^{-6} \text{°C}^{-1}$)			(dn/dT)abs. ($\times 10^{-6} \text{°C}^{-1}$)		
(°C)	1548.1	d	g	1548.1	d	g
-40/-20	1.3	2.0	2.9	-1.0	-0.3	0.5
0/+20	2.1	3.0	3.9	0.5	1.3	2.2
+40/+60	2.0	2.9	4.0	0.8	1.6	2.6

691548 K-LaK9	nd	1.69100	ν d	54.8	nF-nC	0.01262
	ne	1.69400	ν e	54.5	nF'-nC'	0.01273

屈折率 Refractive Indices		
n1548	1548.1	1.66894
n1309	1308.5	1.67235
nt	1014.0	1.67706
nA'	768.2	1.68285
nr	706.5	1.68501
nC	656.3	1.68719
nC'	643.9	1.68779
nD	589.3	1.69089
nd	587.6	1.69100
ne	546.1	1.69400
nF	486.1	1.69981
nF'	480.0	1.70052
ng	435.8	1.70671
nh	404.7	1.71246
ni	365.0	1.72229

分散式の常数 Constants of Dispersion Formula	
A0	2.8065086
A1	$-1.2084694 \times 10^{-2}$
A2	1.8509723×10^{-2}
A3	4.5689652×10^{-4}
A4	$-1.5275984 \times 10^{-5}$
A5	1.0018509×10^{-6}

dn/dTの分散常数 Constants of Dispersion dn/dT abs.	
D0	-3.41×10^{-6}
D1	2.03×10^{-8}
D2	-1.26×10^{-10}
E0	4.75×10^{-7}
E1	9.33×10^{-11}
$\lambda_{TK} (\mu m)$	0.170

部分分散および部分分散比 Partial Dispersions and Relative Partial Dispersions			
nC-nt	nC-nA'	nd-nC	ne-nC
0.01013	0.00434	0.00381	0.00681
$\theta_{C,t}$	$\theta_{C,A'}$	$\theta_{d,C}$	$\theta_{e,C}$
0.803	0.344	0.302	0.540
ng-nd	ng-nF	nh-ng	ni-ng
0.01571	0.00690	0.00575	0.01558
$\theta_{g,d}$	$\theta_{g,F(\Delta)}$	$\theta_{h,g}$	$\theta_{i,g}$
1.245	0.547 (-0.0050)	0.456	1.235
nC'-nt	ne-nC'	nF'-ne	ni-nF'
0.01073	0.00621	0.00652	0.02177
$\theta_{C',t}$	$\theta_{e,C'}$	$\theta_{F',e}$	$\theta_{i,F'}$
0.843	0.488	0.512	1.710

機械的性質 Mechanical Properties	熱的性質 Thermal Properties
ヌープ硬さ Hk Knoop Hardness 559 (6)	転移点 Tg (°C) Transformation Point 651
ビッカース硬さ Hv Vickers Hardness 695	屈伏点 At (°C) Yielding Point 679
摩耗度 Ha Abrasion 130	線膨張係数 $\alpha (\times 10^{-7} \text{°C}^{-1})$ Thermal Expansion
ヤング率 E ($\times 10^8 \text{N} \cdot \text{m}^{-2}$) Young's Modulus 943	(-30~+70°C) 72 (+100~+300°C) 86
剛性率 G ($\times 10^8 \text{N} \cdot \text{m}^{-2}$) Modulus of Rigidity 366	熱伝導率 $\lambda (\text{W} \cdot \text{m}^{-1} \cdot \text{K}^{-1})$ Thermal Conductivity
ポアソン比 σ Poisson Ratio 0.289	比熱 Cp ($\text{J} \cdot \text{kg}^{-1} \cdot \text{K}^{-1}$) Specific Heat
化学的性質 Chemical Properties	その他 Other Properties
耐水性(粉末法) RW Water Resistance 2	泡 B Bubbles
耐酸性(粉末法) RA Acid Resistance 4	着色度 C Coloration 37/31
耐久性(表面法) DW Chemical Durability 1	比重 S.g Specific Gravity 4.06
備考 Remarks	生産頻度 PF Production frequency

内部透過率 τ Internal Transmittance		
$\lambda(\text{nm})$	10mm	25mm
270		
280		
290		
300		
310	0.051	
320	0.239	0.027
330	0.453	0.138
340	0.633	0.319
350	0.773	0.525
360	0.855	0.676
370	0.916	0.804
380	0.946	0.872
390	0.962	0.908
400	0.971	0.930
420	0.977	0.944
440	0.983	0.958
460	0.984	0.961
480	0.985	0.965
500	0.988	0.972
550	0.990	0.975
600	0.992	0.982
650	0.992	0.982
700	0.995	0.989
800	0.997	0.992
1060	0.998	0.996
1500	0.992	0.982
2000	0.962	0.910

屈折率の温度係数 Temperature Coefficients of Refractive Index						
	(dn/dT)rel. ($\times 10^{-6} \text{°C}^{-1}$)			(dn/dT)abs. ($\times 10^{-6} \text{°C}^{-1}$)		
(°C)	1548.1	d	g	1548.1	d	g
-40/-20	-1.1	-0.4	0.4	-3.3	-2.7	-2.0
0/+20	-0.3	0.4	1.2	-2.0	-1.3	-0.5
+40/+60	0.0	0.7	1.6	-1.2	-0.6	0.3

720503 K-LaK10	nd	1.72000	ν d	50.3	nF-nC	0.01431
	ne	1.72342	ν e	50.1	nF'-nC'	0.01445

屈折率 Refractive Indices		
n1548	1548.1	1.69620
n1309	1308.5	1.69964
nt	1014.0	1.70455
nA'	768.2	1.71085
nr	706.5	1.71327
nC	656.3	1.71569
nC'	643.9	1.71638
nD	589.3	1.71988
nd	587.6	1.72000
ne	546.1	1.72342
nF	486.1	1.73000
nF'	480.0	1.73083
ng	435.8	1.73793
nh	404.7	1.74456
ni	365.0	1.75590

分散式の常数 Constants of Dispersion Formula	
A0	2.8960747
A1	$-1.1713123 \times 10^{-2}$
A2	2.1599254×10^{-2}
A3	4.3811038×10^{-4}
A4	5.7529030×10^{-6}
A5	$-1.7364157 \times 10^{-7}$

dn/dTの分散常数 Constants of Dispersion dn/dT abs.	
D0	-2.63×10^{-6}
D1	2.02×10^{-8}
D2	-6.98×10^{-11}
E0	5.94×10^{-7}
E1	9.57×10^{-10}
$\lambda_{TK} (\mu m)$	0.184

部分分散および部分分散比 Partial Dispersions and Relative Partial Dispersions			
nC-nt	nC-nA'	nd-nC	ne-nC
0.01114	0.00484	0.00431	0.00773
$\theta_{C,t}$	$\theta_{C,A'}$	$\theta_{d,C}$	$\theta_{e,C}$
0.778	0.338	0.301	0.540
ng-nd	ng-nF	nh-ng	ni-ng
0.01793	0.00793	0.00663	0.01797
$\theta_{g,d}$	$\theta_{g,F(\Delta)}$	$\theta_{h,g}$	$\theta_{i,g}$
1.253	0.554 (-0.0056)	0.463	1.256
nC'-nt	ne-nC'	nF'-ne	ni-nF'
0.01183	0.00704	0.00741	0.02507
$\theta_{C',t}$	$\theta_{e,C'}$	$\theta_{F',e}$	$\theta_{i,F'}$
0.819	0.487	0.513	1.735

機械的性質 Mechanical Properties	熱的性質 Thermal Properties
ヌープ硬さ Hk Knoop Hardness 556 (6)	転移点 Tg (°C) Transformation Point 657
ビッカース硬さ Hv Vickers Hardness 664	屈伏点 At (°C) Yielding Point 698
摩耗度 Ha Abrasion 130	線膨張係数 $\alpha (\times 10^{-7} \text{°C}^{-1})$ Thermal Expansion 72
ヤング率 E ($\times 10^8 \text{N} \cdot \text{m}^{-2}$) Young's Modulus 970	(-30~+70°C) 72 (+100~+300°C) 86
剛性率 G ($\times 10^8 \text{N} \cdot \text{m}^{-2}$) Modulus of Rigidity 380	熱伝導率 $\lambda (\text{W} \cdot \text{m}^{-1} \cdot \text{K}^{-1})$ Thermal Conductivity
ポアソン比 σ Poisson Ratio 0.275	比熱 Cp ($\text{J} \cdot \text{kg}^{-1} \cdot \text{K}^{-1}$) Specific Heat
化学的性質 Chemical Properties	その他 Other Properties
耐水性(粉末法) RW Water Resistance 1	泡 B Bubbles
耐酸性(粉末法) RA Acid Resistance 4	着色度 C Coloration 37/32
耐久性(表面法) DW Chemical Durability 1	比重 S.g Specific Gravity 4.08
備考 Remarks	生産頻度 PF Production frequency

内部透過率 τ Internal Transmittance		
$\lambda(\text{nm})$	10mm	25mm
270		
280		
290		
300		
310	0.005	
320	0.079	
330	0.366	0.081
340	0.498	0.175
350	0.683	0.385
360	0.803	0.575
370	0.885	0.737
380	0.930	0.834
390	0.953	0.888
400	0.964	0.914
420	0.978	0.948
440	0.981	0.954
460	0.983	0.958
480	0.985	0.965
500	0.988	0.972
550	0.991	0.979
600	0.992	0.982
650	0.995	0.989
700	0.997	0.992
800	0.998	0.996
1060	0.998	0.996
1500	0.992	0.982
2000	0.964	0.914

屈折率の温度係数 Temperature Coefficients of Refractive Index						
	(dn/dT)rel. ($\times 10^{-6} \text{°C}^{-1}$)			(dn/dT)abs. ($\times 10^{-6} \text{°C}^{-1}$)		
(°C)	1548.1	d	g	1548.1	d	g
-40/-20	-0.5	0.3	1.2	-2.7	-2.0	-1.2
0/+20	0.1	1.0	2.1	-1.6	-0.7	0.4
+40/+60	0.5	1.6	2.8	-0.7	0.3	1.5

658573 K-LaK11	nd	1.65830	ν d	57.3	nF-nC	0.01149
	ne	1.66105	ν e	57.0	nF'-nC'	0.01159

屈折率 Refractive Indices		
n1548	1548.1	1.63778
n1309	1308.5	1.64104
nt	1014.0	1.64548
nA'	768.2	1.65084
nr	706.5	1.65283
nC	656.3	1.65481
nC'	643.9	1.65537
nD	589.3	1.65820
nd	587.6	1.65830
ne	546.1	1.66105
nF	486.1	1.66630
nF'	480.0	1.66696
ng	435.8	1.67257
nh	404.7	1.67777
ni	365.0	1.68665

分散式の常数 Constants of Dispersion Formula	
A0	2.7030710
A1	$-1.1555097 \times 10^{-2}$
A2	1.6440907×10^{-2}
A3	4.4044678×10^{-4}
A4	$-2.1866961 \times 10^{-5}$
A5	1.3531002×10^{-6}

dn/dTの分散常数 Constants of Dispersion dn/dT abs.	
D0	-2.69×10^{-6}
D1	1.38×10^{-8}
D2	-5.45×10^{-11}
E0	4.86×10^{-7}
E1	7.71×10^{-10}
$\lambda_{TK} (\mu m)$	0.155

部分分散および部分分散比 Partial Dispersions and Relative Partial Dispersions			
nC-nt	nC-nA'	nd-nC	ne-nC
0.00933	0.00397	0.00349	0.00624
$\theta_{C,t}$	$\theta_{C,A'}$	$\theta_{d,C}$	$\theta_{e,C}$
0.812	0.346	0.304	0.543
ng-nd	ng-nF	nh-ng	ni-ng
0.01427	0.00627	0.00520	0.01408
$\theta_{g,d}$	$\theta_{g,F(\Delta)}$	$\theta_{h,g}$	$\theta_{i,g}$
1.242	0.546 (-0.0018)	0.453	1.225
nC'-nt	ne-nC'	nF'-ne	ni-nF'
0.00989	0.00568	0.00591	0.01969
$\theta_{C',t}$	$\theta_{e,C'}$	$\theta_{F',e}$	$\theta_{i,F'}$
0.853	0.490	0.510	1.699

機械的性質 Mechanical Properties	熱的性質 Thermal Properties
ヌープ硬さ Hk Knoop Hardness 542 (5)	転移点 Tg (°C) Transformation Point 639
ビッカース硬さ Hv Vickers Hardness 639	屈伏点 At (°C) Yielding Point 678
摩耗度 Ha Abrasion 160	線膨張係数 $\alpha (\times 10^{-7} \text{°C}^{-1})$ Thermal Expansion
ヤング率 E ($\times 10^8 \text{N} \cdot \text{m}^{-2}$) Young's Modulus 899	(-30~+70°C) 56 (+100~+300°C) 85
剛性率 G ($\times 10^8 \text{N} \cdot \text{m}^{-2}$) Modulus of Rigidity 355	熱伝導率 $\lambda (\text{W} \cdot \text{m}^{-1} \cdot \text{K}^{-1})$ Thermal Conductivity
ポアソン比 σ Poisson Ratio 0.266	比熱 Cp ($\text{J} \cdot \text{kg}^{-1} \cdot \text{K}^{-1}$) Specific Heat
化学的性質 Chemical Properties	その他 Other Properties
耐水性(粉末法) RW Water Resistance 3	泡 B Bubbles
耐酸性(粉末法) RA Acid Resistance 4	着色度 C Coloration 36/29
耐久性(表面法) DW Chemical Durability 1	比重 S.g Specific Gravity 3.85
備考 Remarks	生産頻度 PF Production frequency

内部透過率 τ Internal Transmittance		
$\lambda(\text{nm})$	10mm	25mm
270		
280	0.012	
290	0.069	
300	0.183	0.014
310	0.345	0.069
320	0.500	0.177
330	0.666	0.363
340	0.778	0.534
350	0.864	0.695
360	0.916	0.804
370	0.948	0.875
380	0.964	0.914
390	0.971	0.931
400	0.980	0.951
420	0.983	0.958
440	0.985	0.965
460	0.988	0.972
480	0.990	0.975
500	0.990	0.975
550	0.992	0.982
600	0.994	0.985
650	0.995	0.991
700	0.997	0.992
800	0.998	0.996
1060	0.997	0.992
1500	0.990	0.975
2000	0.960	0.904

屈折率の温度係数 Temperature Coefficients of Refractive Index						
	(dn/dT)rel. ($\times 10^{-6} \text{°C}^{-1}$)			(dn/dT)abs. ($\times 10^{-6} \text{°C}^{-1}$)		
(°C)	1548.1	d	g	1548.1	d	g
-40/-20	0.0	0.6	1.2	-2.2	-1.7	-1.1
0/+20	0.2	0.9	1.6	-1.4	-0.8	-0.1
+40/+60	0.3	1.1	1.9	-0.9	-0.2	0.6

678555 K-LaK12	nd	1.67790	ν d	55.5	nF-nC	0.01221
	ne	1.68082	ν e	55.2	nF'-nC'	0.01233

屈折率 Refractive Indices		
n1548	1548.1	1.65643
n1309	1308.5	1.65977
nt	1014.0	1.66438
nA'	768.2	1.67000
nr	706.5	1.67210
nC	656.3	1.67421
nC'	643.9	1.67480
nD	589.3	1.67780
nd	587.6	1.67790
ne	546.1	1.68082
nF	486.1	1.68642
nF'	480.0	1.68713
ng	435.8	1.69311
nh	404.7	1.69868
ni	365.0	1.70813

分散式の常数 Constants of Dispersion Formula	
A0	2.7644388
A1	$-1.1785176 \times 10^{-2}$
A2	1.7957173×10^{-2}
A3	3.4733134×10^{-4}
A4	3.6439617×10^{-6}
A5	$-3.2863780 \times 10^{-7}$

dn/dTの分散常数 Constants of Dispersion dn/dT abs.	
D0	-3.52×10^{-6}
D1	1.96×10^{-8}
D2	-6.90×10^{-11}
E0	5.11×10^{-7}
E1	4.65×10^{-10}
$\lambda_{TK} (\mu m)$	0.152

部分分散および部分分散比 Partial Dispersions and Relative Partial Dispersions			
nC-nt	nC-nA'	nd-nC	ne-nC
0.00983	0.00421	0.00369	0.00661
$\theta_{C,t}$	$\theta_{C,A'}$	$\theta_{d,C}$	$\theta_{e,C}$
0.805	0.345	0.302	0.541
ng-nd	ng-nF	nh-ng	ni-ng
0.01521	0.00669	0.00557	0.01502
$\theta_{g,d}$	$\theta_{g,F(\Delta)}$	$\theta_{h,g}$	$\theta_{i,g}$
1.246	0.548 (-0.0028)	0.456	1.230
nC'-nt	ne-nC'	nF'-ne	ni-nF'
0.01042	0.00602	0.00631	0.02100
$\theta_{C',t}$	$\theta_{e,C'}$	$\theta_{F',e}$	$\theta_{i,F'}$
0.845	0.488	0.512	1.703

機械的性質 Mechanical Properties	熱的性質 Thermal Properties
ヌープ硬さ Hk Knoop Hardness 539 (5)	転移点 Tg (°C) Transformation Point 653
ビッカース硬さ Hv Vickers Hardness 638	屈伏点 At (°C) Yielding Point 689
摩耗度 Ha Abrasion 150	線膨張係数 $\alpha (\times 10^{-7} \text{°C}^{-1})$ Thermal Expansion
ヤング率 E ($\times 10^8 \text{N} \cdot \text{m}^{-2}$) Young's Modulus 921	(-30~+70°C) 69 (+100~+300°C) 81
剛性率 G ($\times 10^8 \text{N} \cdot \text{m}^{-2}$) Modulus of Rigidity 363	熱伝導率 $\lambda (\text{W} \cdot \text{m}^{-1} \cdot \text{K}^{-1})$ Thermal Conductivity
ポアソン比 σ Poisson Ratio 0.269	比熱 Cp ($\text{J} \cdot \text{kg}^{-1} \cdot \text{K}^{-1}$) Specific Heat
化学的性質 Chemical Properties	その他 Other Properties
耐水性(粉末法) RW Water Resistance 3	泡 B Bubbles
耐酸性(粉末法) RA Acid Resistance 3	着色度 C Coloration 36/29
耐久性(表面法) DW Chemical Durability 1	比重 S.g Specific Gravity 3.98
備考 Remarks	生産頻度 PF Production frequency C

内部透過率 τ Internal Transmittance		
$\lambda(\text{nm})$	10mm	25mm
270		
280		
290		
300		
310	0.022	
320	0.138	
330	0.350	0.072
340	0.560	0.235
350	0.727	0.450
360	0.835	0.638
370	0.905	0.780
380	0.940	0.857
390	0.960	0.903
400	0.971	0.930
420	0.981	0.954
440	0.981	0.954
460	0.985	0.964
480	0.985	0.964
500	0.988	0.971
550	0.990	0.975
600	0.992	0.982
650	0.994	0.985
700	0.995	0.989
800	0.998	0.996
1060	0.998	0.996
1500	0.997	0.992
2000	0.971	0.930

屈折率の温度係数 Temperature Coefficients of Refractive Index						
	(dn/dT)rel. ($\times 10^{-6} \text{°C}^{-1}$)			(dn/dT)abs. ($\times 10^{-6} \text{°C}^{-1}$)		
(°C)	1548.1	d	g	1548.1	d	g
-40/-20	-0.8	-0.2	0.6	-3.1	-2.5	-1.8
0/+20	-0.3	0.4	1.2	-2.0	-1.3	-0.5
+40/+60	0.0	0.8	1.7	-1.2	-0.5	0.4

697556 K-LaK14	nd	1.69680	ν d	55.6	nF-nC	0.01253
	ne	1.69978	ν e	55.5	nF'-nC'	0.01262

屈折率 Refractive Indices		
n1548	1548.1	1.67397
n1309	1308.5	1.67770
nt	1014.0	1.68272
nA'	768.2	1.68864
nr	706.5	1.69082
nC	656.3	1.69299
nC'	643.9	1.69361
nD	589.3	1.69669
nd	587.6	1.69680
ne	546.1	1.69978
nF	486.1	1.70552
nF'	480.0	1.70623
ng	435.8	1.71231
nh	404.7	1.71798
ni	365.0	1.72764

分散式の常数 Constants of Dispersion Formula	
A0	2.8277206
A1	$-1.3838479 \times 10^{-2}$
A2	1.7984700×10^{-2}
A3	5.7777884×10^{-4}
A4	$-3.7712827 \times 10^{-5}$
A5	2.2935918×10^{-6}

dn/dTの分散常数 Constants of Dispersion dn/dT abs.	
D0	-4.50×10^{-7}
D1	1.44×10^{-8}
D2	-3.03×10^{-10}
E0	5.54×10^{-7}
E1	7.23×10^{-10}
$\lambda_{TK} (\mu m)$	0.135

部分分散および部分分散比 Partial Dispersions and Relative Partial Dispersions			
nC-nt	nC-nA'	nd-nC	ne-nC
0.01027	0.00435	0.00381	0.00679
$\theta_{C,t}$	$\theta_{C,A'}$	$\theta_{d,C}$	$\theta_{e,C}$
0.820	0.347	0.304	0.542
ng-nd	ng-nF	nh-ng	ni-ng
0.01551	0.00679	0.00567	0.01533
$\theta_{g,d}$	$\theta_{g,F(\Delta)}$	$\theta_{h,g}$	$\theta_{i,g}$
1.238	0.542 (-0.0087)	0.453	1.223
nC'-nt	ne-nC'	nF'-ne	ni-nF'
0.01089	0.00617	0.00645	0.02141
$\theta_{C',t}$	$\theta_{e,C'}$	$\theta_{F',e}$	$\theta_{i,F'}$
0.863	0.489	0.511	1.697

機械的性質 Mechanical Properties	熱的性質 Thermal Properties
ヌープ硬さ Hk Knoop Hardness 634 (6)	転移点 Tg (°C) Transformation Point 668
ビッカース硬さ Hv Vickers Hardness 712	屈伏点 At (°C) Yielding Point 693
摩耗度 Ha Abrasion 90	線膨張係数 $\alpha (\times 10^{-7} \text{°C}^{-1})$ Thermal Expansion
ヤング率 E ($\times 10^8 \text{N} \cdot \text{m}^{-2}$) Young's Modulus 1119	(-30~+70°C) 64 (+100~+300°C) 81
剛性率 G ($\times 10^8 \text{N} \cdot \text{m}^{-2}$) Modulus of Rigidity 434	熱伝導率 $\lambda (\text{W} \cdot \text{m}^{-1} \cdot \text{K}^{-1})$ Thermal Conductivity
ポアソン比 σ Poisson Ratio 0.289	比熱 Cp ($\text{J} \cdot \text{kg}^{-1} \cdot \text{K}^{-1}$) Specific Heat
化学的性質 Chemical Properties	その他 Other Properties
耐水性(粉末法) RW Water Resistance 1	泡 B Bubbles
耐酸性(粉末法) RA Acid Resistance 5	着色度 C Coloration 37/31
耐久性(表面法) DW Chemical Durability 1	比重 S.g Specific Gravity 3.64
備考 Remarks	生産頻度 PF Production frequency

内部透過率 τ Internal Transmittance		
$\lambda(\text{nm})$	10mm	25mm
270		
280		
290		
300		
310	0.054	
320	0.170	0.012
330	0.340	0.067
340	0.528	0.203
350	0.682	0.384
360	0.795	0.564
370	0.873	0.714
380	0.900	0.770
390	0.918	0.807
400	0.957	0.896
420	0.968	0.923
440	0.975	0.940
460	0.980	0.950
480	0.982	0.957
500	0.985	0.964
550	0.985	0.964
600	0.990	0.975
650	0.991	0.978
700	0.994	0.985
800	0.997	0.992
1060	0.997	0.992
1500	0.997	0.992
2000	0.968	0.923

屈折率の温度係数 Temperature Coefficients of Refractive Index						
	(dn/dT)rel. ($\times 10^{-6} \text{°C}^{-1}$)			(dn/dT)abs. ($\times 10^{-6} \text{°C}^{-1}$)		
(°C)	1548.1	d	g	1548.1	d	g
-40/-20	0.1	0.8	1.6	-2.1	-1.5	-0.8
0/+20	1.3	2.2	3.0	-0.3	0.5	1.3
+40/+60	1.2	2.1	3.1	-0.1	0.8	1.7

729547 K-LaK18	nd	1.72916	ν d	54.7	nF-nC	0.01334
	ne	1.73234	ν e	54.5	nF'-nC'	0.01344

屈折率 Refractive Indices		
n1548	1548.1	1.70473
n1309	1308.5	1.70875
nt	1014.0	1.71407
nA'	768.2	1.72045
nr	706.5	1.72278
nC	656.3	1.72510
nC'	643.9	1.72576
nD	589.3	1.72905
nd	587.6	1.72916
ne	546.1	1.73234
nF	486.1	1.73844
nF'	480.0	1.73920
ng	435.8	1.74569
nh	404.7	1.75172
ni	365.0	1.76202

分散式の常数 Constants of Dispersion Formula	
A0	2.9333796
A1	$-1.4920134 \times 10^{-2}$
A2	2.0207432×10^{-2}
A3	4.1238589×10^{-4}
A4	$-1.2303320 \times 10^{-5}$
A5	1.1436994×10^{-6}

dn/dTの分散常数 Constants of Dispersion dn/dT abs.	
D0	6.73×10^{-7}
D1	2.10×10^{-8}
D2	-1.63×10^{-10}
E0	4.91×10^{-7}
E1	2.14×10^{-10}
$\lambda_{TK} (\mu m)$	0.164

部分分散および部分分散比 Partial Dispersions and Relative Partial Dispersions			
nC-nt	nC-nA'	nd-nC	ne-nC
0.01103	0.00465	0.00406	0.00724
$\theta_{C,t}$	$\theta_{C,A'}$	$\theta_{d,C}$	$\theta_{e,C}$
0.827	0.349	0.304	0.543
ng-nd	ng-nF	nh-ng	ni-ng
0.01653	0.00725	0.00603	0.01633
$\theta_{g,d}$	$\theta_{g,F(\Delta)}$	$\theta_{h,g}$	$\theta_{i,g}$
1.239	0.543 (-0.0092)	0.452	1.224
nC'-nt	ne-nC'	nF'-ne	ni-nF'
0.01169	0.00658	0.00686	0.02282
$\theta_{C',t}$	$\theta_{e,C'}$	$\theta_{F',e}$	$\theta_{i,F'}$
0.870	0.490	0.510	1.698

機械的性質 Mechanical Properties	熱的性質 Thermal Properties
ヌープ硬さ Hk Knoop Hardness 600 (6)	転移点 Tg (°C) Transformation Point 682
ビッカース硬さ Hv Vickers Hardness 620	屈伏点 At (°C) Yielding Point 706
摩耗度 Ha Abrasion 60	線膨張係数 $\alpha (\times 10^{-7} \text{°C}^{-1})$ Thermal Expansion
ヤング率 E ($\times 10^8 \text{N} \cdot \text{m}^{-2}$) Young's Modulus 1175	(-30~+70°C) 56 (+100~+300°C) 71
剛性率 G ($\times 10^8 \text{N} \cdot \text{m}^{-2}$) Modulus of Rigidity 461	熱伝導率 $\lambda (\text{W} \cdot \text{m}^{-1} \cdot \text{K}^{-1})$ Thermal Conductivity
ポアソン比 σ Poisson Ratio 0.275	比熱 Cp ($\text{J} \cdot \text{kg}^{-1} \cdot \text{K}^{-1}$) Specific Heat
化学的性質 Chemical Properties	その他 Other Properties
耐水性(粉末法) RW Water Resistance 1	泡 B Bubbles
耐酸性(粉末法) RA Acid Resistance 4	着色度 C Coloration 38/30
耐久性(表面法) DW Chemical Durability 1	比重 S.g Specific Gravity 4.08
備考 Remarks	生産頻度 PF Production frequency C

内部透過率 τ Internal Transmittance		
$\lambda(\text{nm})$	10mm	25mm
270		
280		
290	0.022	
300	0.058	
310	0.100	
320	0.246	0.030
330	0.398	0.100
340	0.554	0.229
350	0.694	0.402
360	0.799	0.571
370	0.873	0.714
380	0.922	0.817
390	0.947	0.874
400	0.965	0.916
420	0.978	0.947
440	0.982	0.957
460	0.985	0.964
480	0.988	0.971
500	0.990	0.975
550	0.991	0.978
600	0.995	0.989
650	0.997	0.992
700	0.998	0.996
800	0.998	0.996
1060	0.998	0.996
1500	0.995	0.989
2000	0.954	0.890

屈折率の温度係数 Temperature Coefficients of Refractive Index						
	(dn/dT)rel. ($\times 10^{-6} \text{°C}^{-1}$)			(dn/dT)abs. ($\times 10^{-6} \text{°C}^{-1}$)		
(°C)	1548.1	d	g	1548.1	d	g
-40/-20	0.9	1.7	2.5	-1.4	-0.7	0.1
0/+20	1.9	2.7	3.6	0.2	1.0	1.9
+40/+60	2.2	3.1	4.0	1.0	1.8	2.7

641601 K-LaKn2	nd	1.64050	ν d	60.1	nF-nC	0.01065
	ne	1.64304	ν e	60.0	nF'-nC'	0.01072

屈折率 Refractive Indices		
n1548	1548.1	1.62012
n1309	1308.5	1.62365
nt	1014.0	1.62826
nA'	768.2	1.63351
nr	706.5	1.63539
nC	656.3	1.63725
nC'	643.9	1.63778
nD	589.3	1.64041
nd	587.6	1.64050
ne	546.1	1.64304
nF	486.1	1.64790
nF'	480.0	1.64850
ng	435.8	1.65365
nh	404.7	1.65842
ni	365.0	1.66653

分散式の常数 Constants of Dispersion Formula	
A0	2.6498456
A1	$-1.3078949 \times 10^{-2}$
A2	1.4887079×10^{-2}
A3	3.6218690×10^{-4}
A4	$-1.1506273 \times 10^{-5}$
A5	6.1300945×10^{-7}

dn/dTの分散常数 Constants of Dispersion dn/dT abs.	
D0	-2.24×10^{-6}
D1	1.48×10^{-8}
D2	-2.56×10^{-10}
E0	3.66×10^{-7}
E1	4.69×10^{-10}
$\lambda_{TK} (\mu m)$	0.182

部分分散および部分分散比 Partial Dispersions and Relative Partial Dispersions			
nC-nt	nC-nA'	nd-nC	ne-nC
0.00899	0.00374	0.00325	0.00579
$\theta_{C,t}$	$\theta_{C,A'}$	$\theta_{d,C}$	$\theta_{e,C}$
0.844	0.351	0.305	0.544
ng-nd	ng-nF	nh-ng	ni-ng
0.01315	0.00575	0.00477	0.01288
$\theta_{g,d}$	$\theta_{g,F(\Delta)}$	$\theta_{h,g}$	$\theta_{i,g}$
1.235	0.540 (-0.0031)	0.448	1.209
nC'-nt	ne-nC'	nF'-ne	ni-nF'
0.00952	0.00526	0.00546	0.01803
$\theta_{C',t}$	$\theta_{e,C'}$	$\theta_{F',e}$	$\theta_{i,F'}$
0.888	0.491	0.509	1.682

機械的性質 Mechanical Properties	熱的性質 Thermal Properties
ヌープ硬さ Hk Knoop Hardness 561 (6)	転移点 Tg (°C) Transformation Point 639
ビッカース硬さ Hv Vickers Hardness 564	屈伏点 At (°C) Yielding Point 663
摩耗度 Ha Abrasion 130	線膨張係数 $\alpha (\times 10^{-7} \text{°C}^{-1})$ Thermal Expansion
ヤング率 E ($\times 10^8 \text{N} \cdot \text{m}^{-2}$) Young's Modulus 915	(-30~+70°C) 59 (+100~+300°C) 80
剛性率 G ($\times 10^8 \text{N} \cdot \text{m}^{-2}$) Modulus of Rigidity 358	熱伝導率 $\lambda (\text{W} \cdot \text{m}^{-1} \cdot \text{K}^{-1})$ Thermal Conductivity
ポアソン比 σ Poisson Ratio 0.278	比熱 Cp ($\text{J} \cdot \text{kg}^{-1} \cdot \text{K}^{-1}$) Specific Heat
化学的性質 Chemical Properties	その他 Other Properties
耐水性(粉末法) RW Water Resistance 4	泡 B Bubbles
耐酸性(粉末法) RA Acid Resistance 5	着色度 C Coloration 36/30
耐久性(表面法) DW Chemical Durability 1	比重 S.g Specific Gravity 3.66
備考 Remarks	生産頻度 PF Production frequency

内部透過率 τ Internal Transmittance		
$\lambda (\text{nm})$	10mm	25mm
270		
280		
290	0.020	
300	0.086	
310	0.209	0.020
320	0.371	0.084
330	0.558	0.232
340	0.708	0.423
350	0.819	0.608
360	0.887	0.742
370	0.936	0.848
380	0.957	0.896
390	0.971	0.930
400	0.980	0.950
420	0.985	0.964
440	0.988	0.971
460	0.990	0.975
480	0.990	0.975
500	0.992	0.982
550	0.994	0.985
600	0.995	0.989
650	0.997	0.992
700	0.997	0.992
800	0.998	0.996
1060	0.998	0.996
1500	0.998	0.996
2000	0.971	0.930

屈折率の温度係数 Temperature Coefficients of Refractive Index						
	(dn/dT)rel. ($\times 10^{-6} \text{°C}^{-1}$)			(dn/dT)abs. ($\times 10^{-6} \text{°C}^{-1}$)		
(°C)	1548.1	d	g	1548.1	d	g
-40/-20	-0.6	-0.2	0.4	-2.8	-2.4	-1.9
0/+20	0.4	0.9	1.5	-1.2	-0.8	-0.2
+40/+60	0.3	0.9	1.5	-0.9	-0.4	0.2

670517 K-LaKn7	nd	1.67000	ν d	51.7	nF-nC	0.01295
	ne	1.67308	ν e	51.5	nF'-nC'	0.01308

屈折率 Refractive Indices		
n1548	1548.1	1.64799
n1309	1308.5	1.65130
nt	1014.0	1.65593
nA'	768.2	1.66170
nr	706.5	1.66389
nC	656.3	1.66610
nC'	643.9	1.66671
nD	589.3	1.66988
nd	587.6	1.67000
ne	546.1	1.67308
nF	486.1	1.67905
nF'	480.0	1.67979
ng	435.8	1.68622
nh	404.7	1.69224
ni	365.0	1.70269

分散式の常数 Constants of Dispersion Formula	
A0	2.7357410
A1	$-1.1476747 \times 10^{-2}$
A2	1.7975035×10^{-2}
A3	7.2020288×10^{-4}
A4	$-5.1933951 \times 10^{-5}$
A5	3.5980087×10^{-6}

dn/dTの分散常数 Constants of Dispersion dn/dT abs.	
D0	-2.14×10^{-7}
D1	1.48×10^{-8}
D2	-1.61×10^{-10}
E0	5.55×10^{-7}
E1	4.75×10^{-10}
$\lambda_{TK} (\mu m)$	0.191

部分分散および部分分散比 Partial Dispersions and Relative Partial Dispersions			
nC-nt	nC-nA'	nd-nC	ne-nC
0.01017	0.00440	0.00390	0.00698
$\theta_{C,t}$	$\theta_{C,A'}$	$\theta_{d,C}$	$\theta_{e,C}$
0.785	0.340	0.301	0.539
ng-nd	ng-nF	nh-ng	ni-ng
0.01622	0.00717	0.00602	0.01647
$\theta_{g,d}$	$\theta_{g,F(\Delta)}$	$\theta_{h,g}$	$\theta_{i,g}$
1.253	0.554 (-0.0032)	0.465	1.272
nC'-nt	ne-nC'	nF'-ne	ni-nF'
0.01078	0.00637	0.00671	0.02290
$\theta_{C',t}$	$\theta_{e,C'}$	$\theta_{F',e}$	$\theta_{i,F'}$
0.824	0.487	0.513	1.751

機械的性質 Mechanical Properties	熱的性質 Thermal Properties
ヌープ硬さ Hk Knoop Hardness 546 (5)	転移点 Tg (°C) Transformation Point 634
ビッカース硬さ Hv Vickers Hardness 557	屈伏点 At (°C) Yielding Point 668
摩耗度 Ha Abrasion 170	線膨張係数 $\alpha (\times 10^{-7} \text{°C}^{-1})$ Thermal Expansion
ヤング率 E ($\times 10^8 \text{N} \cdot \text{m}^{-2}$) Young's Modulus 916	(-30~+70°C) 63 (+100~+300°C) 85
剛性率 G ($\times 10^8 \text{N} \cdot \text{m}^{-2}$) Modulus of Rigidity 357	熱伝導率 $\lambda (\text{W} \cdot \text{m}^{-1} \cdot \text{K}^{-1})$ Thermal Conductivity
ポアソン比 σ Poisson Ratio 0.284	比熱 Cp ($\text{J} \cdot \text{kg}^{-1} \cdot \text{K}^{-1}$) Specific Heat
化学的性質 Chemical Properties	その他 Other Properties
耐水性(粉末法) RW Water Resistance 1	泡 B Bubbles
耐酸性(粉末法) RA Acid Resistance 5	着色度 C Coloration 38/34
耐久性(表面法) DW Chemical Durability 1	比重 S.g Specific Gravity 3.78
備考 Remarks	生産頻度 PF Production frequency

内部透過率 τ Internal Transmittance		
$\lambda(\text{nm})$	10mm	25mm
270		
280		
290		
300		
310		
320		
330		
340	0.154	
350	0.505	0.181
360	0.742	0.475
370	0.867	0.700
380	0.922	0.817
390	0.948	0.877
400	0.963	0.910
420	0.974	0.937
440	0.978	0.947
460	0.982	0.957
480	0.985	0.964
500	0.988	0.971
550	0.990	0.975
600	0.992	0.982
650	0.995	0.989
700	0.997	0.992
800	0.998	0.996
1060	0.998	0.996
1500	0.992	0.982
2000	0.964	0.913

屈折率の温度係数 Temperature Coefficients of Refractive Index						
	(dn/dT)rel. ($\times 10^{-6} \text{°C}^{-1}$)			(dn/dT)abs. ($\times 10^{-6} \text{°C}^{-1}$)		
(°C)	1548.1	d	g	1548.1	d	g
-40/-20	0.8	1.6	2.5	-1.4	-0.7	0.2
0/+20	1.5	2.3	3.3	-0.2	0.6	1.6
+40/+60	1.5	2.4	3.5	0.3	1.1	2.2

741527 K-LaKn14	nd	1.74100	ν d	52.7	nF-nC	0.01407
	ne	1.74436	ν e	52.5	nF'-nC'	0.01419

屈折率 Refractive Indices		
n1548	1548.1	1.71583
n1309	1308.5	1.71986
nt	1014.0	1.72531
nA'	768.2	1.73187
nr	706.5	1.73431
nC	656.3	1.73673
nC'	643.9	1.73741
nD	589.3	1.74088
nd	587.6	1.74100
ne	546.1	1.74436
nF	486.1	1.75080
nF'	480.0	1.75160
ng	435.8	1.75848
nh	404.7	1.76488
ni	365.0	1.77586

分散式の常数 Constants of Dispersion Formula	
A0	2.9713549
A1	$-1.5047149 \times 10^{-2}$
A2	2.0748381×10^{-2}
A3	6.8239287×10^{-4}
A4	$-4.5897244 \times 10^{-5}$
A5	3.0151479×10^{-6}

dn/dTの分散常数 Constants of Dispersion dn/dT abs.	
D0	1.61×10^{-6}
D1	1.71×10^{-8}
D2	-9.82×10^{-11}
E0	5.38×10^{-7}
E1	2.35×10^{-11}
$\lambda_{TK} (\mu m)$	0.138

部分分散および部分分散比 Partial Dispersions and Relative Partial Dispersions			
nC-nt	nC-nA'	nd-nC	ne-nC
0.01142	0.00486	0.00427	0.00763
$\theta_{C,t}$	$\theta_{C,A'}$	$\theta_{d,C}$	$\theta_{e,C}$
0.812	0.345	0.303	0.542
ng-nd	ng-nF	nh-ng	ni-ng
0.01748	0.00768	0.00640	0.01738
$\theta_{g,d}$	$\theta_{g,F(\Delta)}$	$\theta_{h,g}$	$\theta_{i,g}$
1.242	0.546 (-0.0095)	0.455	1.235
nC'-nt	ne-nC'	nF'-ne	ni-nF'
0.01210	0.00695	0.00724	0.02426
$\theta_{C',t}$	$\theta_{e,C'}$	$\theta_{F',e}$	$\theta_{i,F'}$
0.853	0.490	0.510	1.710

機械的性質 Mechanical Properties	熱的性質 Thermal Properties
ヌープ硬さ Hk Knoop Hardness 713 (7)	転移点 Tg (°C) Transformation Point 680
ビッカース硬さ Hv Vickers Hardness 727	屈伏点 At (°C) Yielding Point 702
摩耗度 Ha Abrasion 73	線膨張係数 $\alpha (\times 10^{-7} \text{°C}^{-1})$ Thermal Expansion
ヤング率 E ($\times 10^8 \text{N} \cdot \text{m}^{-2}$) Young's Modulus 1174	(-30~+70°C) 58 (+100~+300°C) 74
剛性率 G ($\times 10^8 \text{N} \cdot \text{m}^{-2}$) Modulus of Rigidity 459	熱伝導率 $\lambda (\text{W} \cdot \text{m}^{-1} \cdot \text{K}^{-1})$ Thermal Conductivity
ポアソン比 σ Poisson Ratio 0.280	比熱 Cp ($\text{J} \cdot \text{kg}^{-1} \cdot \text{K}^{-1}$) Specific Heat
化学的性質 Chemical Properties	その他 Other Properties
耐水性(粉末法) RW Water Resistance 1	泡 B Bubbles
耐酸性(粉末法) RA Acid Resistance 4	着色度 C Coloration 37/29
耐久性(表面法) DW Chemical Durability	比重 S.g Specific Gravity 4.31
備考 Remarks	生産頻度 PF Production frequency

内部透過率 τ Internal Transmittance		
$\lambda(\text{nm})$	10mm	25mm
270		
280	0.039	
290	0.096	
300	0.199	0.017
310	0.228	0.024
320	0.474	0.155
330	0.614	0.295
340	0.732	0.458
350	0.823	0.615
360	0.888	0.743
370	0.931	0.835
380	0.956	0.893
390	0.971	0.928
400	0.980	0.949
420	0.988	0.970
440	0.992	0.980
460	0.994	0.985
480	0.996	0.989
500	0.997	0.992
550	0.998	0.996
600	0.998	0.996
650	0.998	0.996
700	0.998	0.996
800	0.998	0.996
1060	0.998	0.996
1500	0.998	0.996
2000	0.968	0.923

屈折率の温度係数 Temperature Coefficients of Refractive Index						
	(dn/dT)rel. ($\times 10^{-6} \text{°C}^{-1}$)			(dn/dT)abs. ($\times 10^{-6} \text{°C}^{-1}$)		
(°C)	1548.1	d	g	1548.1	d	g
-40/-20	1.9	2.8	3.8	-0.3	0.5	1.4
0/+20	2.5	3.4	4.4	0.8	1.7	2.6
+40/+60	2.8	3.7	4.7	1.5	2.3	3.3

744449 K-LaF2	nd	1.74400	ν d	44.9	nF-nC	0.01658
	ne	1.74794	ν e	44.6	nF'-nC'	0.01678

屈折率 Refractive Indices		
n1548	1548.1	1.71751
n1309	1308.5	1.72118
nt	1014.0	1.72651
nA'	768.2	1.73356
nr	706.5	1.73628
nC	656.3	1.73907
nC'	643.9	1.73984
nD	589.3	1.74386
nd	587.6	1.74400
ne	546.1	1.74794
nF	486.1	1.75565
nF'	480.0	1.75662
ng	435.8	1.76502
nh	404.7	1.77299
ni	365.0	1.78707

分散式の常数 Constants of Dispersion Formula	
A0	2.9692350
A1	$-1.2366570 \times 10^{-2}$
A2	2.4178838×10^{-2}
A3	8.7063153×10^{-4}
A4	$-4.4196612 \times 10^{-5}$
A5	4.4742987×10^{-6}

dn/dTの分散常数 Constants of Dispersion dn/dT abs.	
D0	-1.89×10^{-6}
D1	1.65×10^{-8}
D2	-4.35×10^{-11}
E0	6.29×10^{-7}
E1	6.76×10^{-10}
$\lambda_{TK} (\mu m)$	0.223

部分分散および部分分散比 Partial Dispersions and Relative Partial Dispersions			
nC-nt	nC-nA'	nd-nC	ne-nC
0.01256	0.00551	0.00493	0.00887
θ C,t	θ C,A'	θ d,C	θ e,C
0.758	0.332	0.297	0.535
ng-nd	ng-nF	nh-ng	ni-ng
0.02102	0.00937	0.00797	0.02205
θ g,d	θ g,F(Δ)	θ h,g	θ i,g
1.268	0.565 (-0.0036)	0.481	1.330
nC'-nt	ne-nC'	nF'-ne	ni-nF'
0.01333	0.00810	0.00868	0.03045
θ 'C',t	θ 'e,C'	θ 'F',e	θ 'i,F'
0.794	0.483	0.517	1.815

機械的性質 Mechanical Properties	熱的性質 Thermal Properties
ヌープ硬さ Hk Knoop Hardness 615 (6)	転移点 Tg (°C) Transformation Point 648
ビッカース硬さ Hv Vickers Hardness 621	屈伏点 At (°C) Yielding Point 686
摩耗度 Ha Abrasion 130	線膨張係数 $\alpha (\times 10^{-7} \text{°C}^{-1})$ Thermal Expansion
ヤング率 E ($\times 10^8 \text{N} \cdot \text{m}^{-2}$) Young's Modulus 1021	(-30~+70°C) 73 (+100~+300°C) 86
剛性率 G ($\times 10^8 \text{N} \cdot \text{m}^{-2}$) Modulus of Rigidity 397	熱伝導率 $\lambda (\text{W} \cdot \text{m}^{-1} \cdot \text{K}^{-1})$ Thermal Conductivity
ポアソン比 σ Poisson Ratio 0.276	比熱 Cp ($\text{J} \cdot \text{kg}^{-1} \cdot \text{K}^{-1}$) Specific Heat
化学的性質 Chemical Properties	その他 Other Properties
耐水性(粉末法) RW Water Resistance 1	泡 B Bubbles
耐酸性(粉末法) RA Acid Resistance 4	着色度 C Coloration 39/34
耐久性(表面法) DW Chemical Durability 1	比重 S.g Specific Gravity 4.01
備考 Remarks	生産頻度 PF Production frequency

内部透過率 τ Internal Transmittance		
λ (nm)	10mm	25mm
270		
280		
290		
300		
310		
320		
330		
340	0.027	
350	0.279	0.041
360	0.606	0.286
370	0.795	0.564
380	0.882	0.730
390	0.925	0.823
400	0.947	0.874
420	0.967	0.920
440	0.974	0.937
460	0.978	0.947
480	0.982	0.957
500	0.985	0.964
550	0.990	0.975
600	0.992	0.982
650	0.994	0.985
700	0.997	0.992
800	0.998	0.996
1060	0.998	0.996
1500	0.998	0.996
2000	0.974	0.937

屈折率の温度係数 Temperature Coefficients of Refractive Index						
	(dn/dT)rel. ($\times 10^{-6} \text{°C}^{-1}$)			(dn/dT)abs. ($\times 10^{-6} \text{°C}^{-1}$)		
(°C)	1548.1	d	g	1548.1	d	g
-40/-20	0.2	1.2	2.5	-2.1	-1.2	0.1
0/+20	0.6	1.7	3.1	-1.1	-0.1	1.3
+40/+60	0.9	2.1	3.6	-0.4	0.7	2.3

700480 K-LaFn3	nd	1.70000	ν d	48.0	nF-nC	0.01459
	ne	1.70348	ν e	47.7	nF'-nC'	0.01474

屈折率 Refractive Indices		
n1548	1548.1	1.67677
n1309	1308.5	1.67994
nt	1014.0	1.68458
nA'	768.2	1.69080
nr	706.5	1.69321
nC	656.3	1.69564
nC'	643.9	1.69634
nD	589.3	1.69988
nd	587.6	1.70000
ne	546.1	1.70348
nF	486.1	1.71023
nF'	480.0	1.71108
ng	435.8	1.71839
nh	404.7	1.72530
ni	365.0	1.73737

分散式の常数 Constants of Dispersion Formula	
A0	2.8270810
A1	$-1.0220727 \times 10^{-2}$
A2	2.1224097×10^{-2}
A3	6.6539560×10^{-4}
A4	$-3.3316539 \times 10^{-5}$
A5	3.1642900×10^{-6}

dn/dTの分散常数 Constants of Dispersion dn/dT abs.	
D0	-3.22×10^{-6}
D1	1.12×10^{-8}
D2	-3.14×10^{-10}
E0	6.46×10^{-7}
E1	6.47×10^{-10}
$\lambda_{TK} (\mu m)$	0.204

部分分散および部分分散比 Partial Dispersions and Relative Partial Dispersions			
nC-nt	nC-nA'	nd-nC	ne-nC
0.01106	0.00484	0.00436	0.00784
$\theta_{C,t}$	$\theta_{C,A'}$	$\theta_{d,C}$	$\theta_{e,C}$
0.758	0.332	0.299	0.537
ng-nd	ng-nF	nh-ng	ni-ng
0.01839	0.00816	0.00691	0.01898
$\theta_{g,d}$	$\theta_{g,F(\Delta)}$	$\theta_{h,g}$	$\theta_{i,g}$
1.260	0.559 (-0.0044)	0.474	1.301
nC'-nt	ne-nC'	nF'-ne	ni-nF'
0.01176	0.00714	0.00760	0.02629
$\theta'_{C',t}$	$\theta'_{e,C'}$	$\theta'_{F',e}$	$\theta'_{i,F'}$
0.798	0.484	0.516	1.784

機械的性質 Mechanical Properties	熱的性質 Thermal Properties
ヌープ硬さ Hk Knoop Hardness 551 (6)	転移点 Tg (°C) Transformation Point 639
ビッカース硬さ Hv Vickers Hardness 549	屈伏点 At (°C) Yielding Point 684
摩耗度 Ha Abrasion 170	線膨張係数 $\alpha (\times 10^{-7} \text{°C}^{-1})$ Thermal Expansion
ヤング率 E ($\times 10^8 \text{N} \cdot \text{m}^{-2}$) Young's Modulus 881	(-30~+70°C) 73 (+100~+300°C) 96
剛性率 G ($\times 10^8 \text{N} \cdot \text{m}^{-2}$) Modulus of Rigidity 346	熱伝導率 $\lambda (\text{W} \cdot \text{m}^{-1} \cdot \text{K}^{-1})$ Thermal Conductivity
ポアソン比 σ Poisson Ratio 0.274	比熱 Cp ($\text{J} \cdot \text{kg}^{-1} \cdot \text{K}^{-1}$) Specific Heat
化学的性質 Chemical Properties	その他 Other Properties
耐水性(粉末法) RW Water Resistance 1	泡 B Bubbles
耐酸性(粉末法) RA Acid Resistance 4	着色度 C Coloration 38/34
耐久性(表面法) DW Chemical Durability 1	比重 S.g Specific Gravity 4.02
備考 Remarks	生産頻度 PF Production frequency

内部透過率 τ Internal Transmittance		
$\lambda(\text{nm})$	10mm	25mm
270		
280		
290		
300		
310		
320		
330		
340	0.114	
350	0.447	0.134
360	0.727	0.450
370	0.862	0.691
380	0.929	0.832
390	0.957	0.896
400	0.971	0.930
420	0.981	0.954
440	0.984	0.961
460	0.985	0.964
480	0.988	0.971
500	0.991	0.978
550	0.992	0.982
600	0.995	0.989
650	0.995	0.989
700	0.998	0.996
800	0.998	0.996
1060	0.998	0.996
1500	0.998	0.996
2000	0.981	0.954

屈折率の温度係数 Temperature Coefficients of Refractive Index						
	(dn/dT)rel. ($\times 10^{-6} \text{°C}^{-1}$)			(dn/dT)abs. ($\times 10^{-6} \text{°C}^{-1}$)		
(°C)	1548.1	d	g	1548.1	d	g
-40/-20	-1.2	-0.3	0.8	-3.5	-2.7	-1.6
0/+20	-0.1	0.9	2.2	-1.8	-0.8	0.4
+40/+60	-0.4	0.7	2.0	-1.7	-0.6	0.7

743492 K-LaFn5	nd	1.74300	ν d	49.2	nF-nC	0.01509
	ne	1.74659	ν e	49.0	nF'-nC'	0.01524

屈折率 Refractive Indices		
n1548	1548.1	1.71661
n1309	1308.5	1.72075
nt	1014.0	1.72645
nA'	768.2	1.73330
nr	706.5	1.73587
nC	656.3	1.73845
nC'	643.9	1.73917
nD	589.3	1.74287
nd	587.6	1.74300
ne	546.1	1.74659
nF	486.1	1.75354
nF'	480.0	1.75441
ng	435.8	1.76189
nh	404.7	1.76889
ni	365.0	1.78094

分散式の常数 Constants of Dispersion Formula	
A0	2.9746618
A1	$-1.5490396 \times 10^{-2}$
A2	2.1676376×10^{-2}
A3	7.9079470×10^{-4}
A4	$-3.5069226 \times 10^{-5}$
A5	2.1235401×10^{-6}

dn/dTの分散常数 Constants of Dispersion dn/dT abs.	
D0	2.26×10^{-6}
D1	2.18×10^{-8}
D2	-2.34×10^{-10}
E0	5.21×10^{-7}
E1	6.65×10^{-10}
$\lambda_{TK} (\mu m)$	0.203

部分分散および部分分散比 Partial Dispersions and Relative Partial Dispersions			
nC-nt	nC-nA'	nd-nC	ne-nC
0.01200	0.00515	0.00455	0.00814
$\theta_{C,t}$	$\theta_{C,A'}$	$\theta_{d,C}$	$\theta_{e,C}$
0.795	0.341	0.302	0.539
ng-nd	ng-nF	nh-ng	ni-ng
0.01889	0.00835	0.00700	0.01905
$\theta_{g,d}$	$\theta_{g,F(\Delta)}$	$\theta_{h,g}$	$\theta_{i,g}$
1.252	0.553 (-0.0084)	0.464	1.262
nC'-nt	ne-nC'	nF'-ne	ni-nF'
0.01272	0.00742	0.00782	0.02653
$\theta_{'C',t}$	$\theta_{'e,C'}$	$\theta_{'F',e}$	$\theta_{'i,F'}$
0.835	0.487	0.513	1.741

機械的性質 Mechanical Properties	熱的性質 Thermal Properties
ヌープ硬さ Hk Knoop Hardness 705 (7)	転移点 Tg (°C) Transformation Point 665
ビッカース硬さ Hv Vickers Hardness 751	屈伏点 At (°C) Yielding Point 687
摩耗度 Ha Abrasion 76	線膨張係数 $\alpha (\times 10^{-7} \text{°C}^{-1})$ Thermal Expansion
ヤング率 E ($\times 10^8 \text{N} \cdot \text{m}^{-2}$) Young's Modulus 1159	(-30~+70°C) 51 (+100~+300°C) 71
剛性率 G ($\times 10^8 \text{N} \cdot \text{m}^{-2}$) Modulus of Rigidity 450	熱伝導率 $\lambda (\text{W} \cdot \text{m}^{-1} \cdot \text{K}^{-1})$ Thermal Conductivity
ポアソン比 σ Poisson Ratio 0.289	比熱 Cp ($\text{J} \cdot \text{kg}^{-1} \cdot \text{K}^{-1}$) Specific Heat
化学的性質 Chemical Properties	その他 Other Properties
耐水性(粉末法) RW Water Resistance 1	泡 B Bubbles
耐酸性(粉末法) RA Acid Resistance 4	着色度 C Coloration 39/34
耐久性(表面法) DW Chemical Durability 1	比重 S.g Specific Gravity 4.05
備考 Remarks	生産頻度 PF Production frequency

内部透過率 τ Internal Transmittance		
$\lambda(\text{nm})$	10mm	25mm
270		
280		
290		
300		
310		
320		
330	0.018	
340	0.188	0.015
350	0.490	0.168
360	0.713	0.429
370	0.838	0.644
380	0.904	0.778
390	0.941	0.860
400	0.958	0.900
420	0.978	0.946
440	0.986	0.965
460	0.990	0.977
480	0.994	0.986
500	0.996	0.991
550	0.998	0.996
600	0.998	0.996
650	0.998	0.996
700	0.998	0.996
800	0.998	0.996
1060	0.998	0.996
1500	0.995	0.989
2000	0.962	0.908

屈折率の温度係数 Temperature Coefficients of Refractive Index						
	(dn/dT)rel. ($\times 10^{-6} \text{°C}^{-1}$)			(dn/dT)abs. ($\times 10^{-6} \text{°C}^{-1}$)		
(°C)	1548.1	d	g	1548.1	d	g
-40/-20	1.5	2.3	3.2	-0.8	-0.1	0.8
0/+20	2.8	3.7	4.9	1.1	2.0	3.1
+40/+60	3.1	4.1	5.4	1.8	2.8	4.0

720460 K-LaFn11	nd	1.72013	ν d	46.0	nF-nC	0.01566
	ne	1.72385	ν e	45.7	nF'-nC'	0.01584

屈折率 Refractive Indices		
n1548	1548.1	1.69490
n1309	1308.5	1.69845
nt	1014.0	1.70354
nA'	768.2	1.71029
nr	706.5	1.71286
nC	656.3	1.71546
nC'	643.9	1.71620
nD	589.3	1.71999
nd	587.6	1.72013
ne	546.1	1.72385
nF	486.1	1.73112
nF'	480.0	1.73204
ng	435.8	1.73994
nh	404.7	1.74742
ni	365.0	1.76066

分散式の常数 Constants of Dispersion Formula	
A0	2.8917009
A1	$-1.1920903 \times 10^{-2}$
A2	2.2558933×10^{-2}
A3	7.9204231×10^{-4}
A4	$-4.0820426 \times 10^{-5}$
A5	4.1373045×10^{-6}

dn/dTの分散常数 Constants of Dispersion dn/dT abs.	
D0	-5.40×10^{-7}
D1	2.18×10^{-8}
D2	-2.46×10^{-10}
E0	5.35×10^{-7}
E1	-3.35×10^{-10}
$\lambda_{TK} (\mu m)$	0.243

部分分散および部分分散比 Partial Dispersions and Relative Partial Dispersions			
nC-nt	nC-nA'	nd-nC	ne-nC
0.01192	0.00517	0.00467	0.00839
$\theta_{C,t}$	$\theta_{C,A'}$	$\theta_{d,C}$	$\theta_{e,C}$
0.761	0.330	0.298	0.536
ng-nd	ng-nF	nh-ng	ni-ng
0.01981	0.00882	0.00748	0.02072
$\theta_{g,d}$	$\theta_{g,F(\Delta)}$	$\theta_{h,g}$	$\theta_{i,g}$
1.265	0.563 (-0.0038)	0.478	1.323
nC'-nt	ne-nC'	nF'-ne	ni-nF'
0.01266	0.00765	0.00819	0.02862
$\theta_{'C',t}$	$\theta_{'e,C'}$	$\theta_{'F',e}$	$\theta_{'i,F'}$
0.799	0.483	0.517	1.807

機械的性質 Mechanical Properties	熱的性質 Thermal Properties
ヌープ硬さ Hk Knoop Hardness 558 (6)	転移点 Tg (°C) Transformation Point 648
ビッカース硬さ Hv Vickers Hardness 592	屈伏点 At (°C) Yielding Point 692
摩耗度 Ha Abrasion 120	線膨張係数 $\alpha (\times 10^{-7} \text{°C}^{-1})$ Thermal Expansion
ヤング率 E ($\times 10^8 \text{N} \cdot \text{m}^{-2}$) Young's Modulus 984	(-30~+70°C) 81 (+100~+300°C) 82
剛性率 G ($\times 10^8 \text{N} \cdot \text{m}^{-2}$) Modulus of Rigidity 383	熱伝導率 $\lambda (\text{W} \cdot \text{m}^{-1} \cdot \text{K}^{-1})$ Thermal Conductivity
ポアソン比 σ Poisson Ratio 0.285	比熱 Cp ($\text{J} \cdot \text{kg}^{-1} \cdot \text{K}^{-1}$) Specific Heat
化学的性質 Chemical Properties	その他 Other Properties
耐水性(粉末法) RW Water Resistance 1	泡 B Bubbles
耐酸性(粉末法) RA Acid Resistance 4	着色度 C Coloration 38/34
耐久性(表面法) DW Chemical Durability 1	比重 S.g Specific Gravity 3.88
備考 Remarks	生産頻度 PF Production frequency

内部透過率 τ Internal Transmittance		
$\lambda(\text{nm})$	10mm	25mm
270		
280		
290		
300		
310		
320		
330		
340	0.022	
350	0.279	0.041
360	0.631	0.317
370	0.826	0.620
380	0.909	0.789
390	0.943	0.864
400	0.961	0.906
420	0.974	0.937
440	0.981	0.954
460	0.985	0.964
480	0.988	0.971
500	0.990	0.975
550	0.995	0.989
600	0.995	0.989
650	0.997	0.992
700	0.998	0.996
800	0.998	0.996
1060	0.998	0.996
1500	0.997	0.992
2000	0.978	0.947

屈折率の温度係数 Temperature Coefficients of Refractive Index						
	(dn/dT)rel. ($\times 10^{-6} \text{°C}^{-1}$)			(dn/dT)abs. ($\times 10^{-6} \text{°C}^{-1}$)		
(°C)	1548.1	d	g	1548.1	d	g
-40/-20	-0.1	0.9	2.3	-2.4	-1.5	-0.1
0/+20	1.2	2.2	3.6	-0.5	0.5	1.8
+40/+60	1.5	2.4	3.7	0.2	1.1	2.4

755524 K-LaSKn1	nd	1.75500	ν d	52.4	nF-nC	0.01442
	ne	1.75843	ν e	52.1	nF'-nC'	0.01456

屈折率 Refractive Indices		
n1548	1548.1	1.72934
n1309	1308.5	1.73341
nt	1014.0	1.73893
nA'	768.2	1.74566
nr	706.5	1.74815
nC	656.3	1.75063
nC'	643.9	1.75132
nD	589.3	1.75487
nd	587.6	1.75500
ne	546.1	1.75843
nF	486.1	1.76505
nF'	480.0	1.76588
ng	435.8	1.77294
nh	404.7	1.77952
ni	365.0	1.79083

分散式の常数 Constants of Dispersion Formula	
A0	3.0176028
A1	$-1.5122390 \times 10^{-2}$
A2	2.1959514×10^{-2}
A3	5.2144528×10^{-4}
A4	$-1.8693935 \times 10^{-5}$
A5	1.6369365×10^{-6}

dn/dTの分散常数 Constants of Dispersion dn/dT abs.	
D0	9.54×10^{-7}
D1	1.19×10^{-8}
D2	-2.27×10^{-10}
E0	5.55×10^{-7}
E1	9.65×10^{-10}
$\lambda_{TK} (\mu m)$	0.153

部分分散および部分分散比 Partial Dispersions and Relative Partial Dispersions			
nC-nt	nC-nA'	nd-nC	ne-nC
0.01170	0.00497	0.00437	0.00780
$\theta_{C,t}$	$\theta_{C,A'}$	$\theta_{d,C}$	$\theta_{e,C}$
0.811	0.345	0.303	0.541
ng-nd	ng-nF	nh-ng	ni-ng
0.01794	0.00789	0.00658	0.01789
$\theta_{g,d}$	$\theta_{g,F(\Delta)}$	$\theta_{h,g}$	$\theta_{i,g}$
1.244	0.547 (-0.0090)	0.456	1.241
nC'-nt	ne-nC'	nF'-ne	ni-nF'
0.01239	0.00711	0.00745	0.02495
$\theta_{C',t}$	$\theta_{e,C'}$	$\theta_{F',e}$	$\theta_{i,F'}$
0.851	0.488	0.512	1.714

機械的性質 Mechanical Properties	熱的性質 Thermal Properties
ヌープ硬さ Hk Knoop Hardness 696 (7)	転移点 Tg (°C) Transformation Point 693
ビッカース硬さ Hv Vickers Hardness 681	屈伏点 At (°C) Yielding Point 712
摩耗度 Ha Abrasion 64	線膨張係数 $\alpha (\times 10^{-7} \text{°C}^{-1})$ Thermal Expansion
ヤング率 E ($\times 10^8 \text{N} \cdot \text{m}^{-2}$) Young's Modulus 1136	(-30~+70°C) 57 (+100~+300°C) 70
剛性率 G ($\times 10^8 \text{N} \cdot \text{m}^{-2}$) Modulus of Rigidity 443	熱伝導率 $\lambda (\text{W} \cdot \text{m}^{-1} \cdot \text{K}^{-1})$ Thermal Conductivity
ポアソン比 σ Poisson Ratio 0.283	比熱 Cp ($\text{J} \cdot \text{kg}^{-1} \cdot \text{K}^{-1}$) Specific Heat
化学的性質 Chemical Properties	その他 Other Properties
耐水性(粉末法) RW Water Resistance 1	泡 B Bubbles
耐酸性(粉末法) RA Acid Resistance 4	着色度 C Coloration 38/29
耐久性(表面法) DW Chemical Durability 1	比重 S.g Specific Gravity 4.51
備考 Remarks	生産頻度 PF Production frequency

内部透過率 τ Internal Transmittance		
$\lambda(\text{nm})$	10mm	25mm
270		
280		
290	0.064	
300	0.133	
310	0.201	0.018
320	0.373	0.085
330	0.516	0.192
340	0.654	0.346
350	0.767	0.516
360	0.853	0.672
370	0.908	0.786
380	0.943	0.864
390	0.964	0.913
400	0.977	0.944
420	0.990	0.975
440	0.992	0.982
460	0.998	0.996
480	0.998	0.996
500	0.998	0.996
550	0.998	0.996
600	0.998	0.996
650	0.998	0.996
700	0.998	0.996
800	0.998	0.996
1060	0.998	0.996
1500	0.995	0.989
2000	0.961	0.906

屈折率の温度係数 Temperature Coefficients of Refractive Index						
	(dn/dT)rel. ($\times 10^{-6} \text{°C}^{-1}$)			(dn/dT)abs. ($\times 10^{-6} \text{°C}^{-1}$)		
(°C)	1548.1	d	g	1548.1	d	g
-40/-20	1.3	2.1	2.9	-1.0	-0.3	0.5
0/+20	2.2	3.1	4.1	0.5	1.4	2.3
+40/+60	2.1	3.1	4.2	0.8	1.8	2.9

806407 K-LaSFn1	nd	1.80610	ν d	40.7	nF-nC	0.01979
	ne	1.81081	ν e	40.5	nF'-nC'	0.02002

屈折率 Refractive Indices		
n1548	1548.1	1.77554
n1309	1308.5	1.77953
nt	1014.0	1.78545
nA'	768.2	1.79371
nr	706.5	1.79694
nC	656.3	1.80022
nC'	643.9	1.80115
nD	589.3	1.80593
nd	587.6	1.80610
ne	546.1	1.81081
nF	486.1	1.82001
nF'	480.0	1.82117
ng	435.8	1.83123
nh	404.7	1.84081
ni	365.0	1.85785

分散式の常数 Constants of Dispersion Formula	
A0	3.1704478
A1	$-1.2872124 \times 10^{-2}$
A2	3.0711328×10^{-2}
A3	9.1467552×10^{-4}
A4	$-4.2179151 \times 10^{-5}$
A5	5.8855030×10^{-6}

dn/dTの分散常数 Constants of Dispersion dn/dT abs.	
D0	6.70×10^{-7}
D1	1.30×10^{-8}
D2	-3.16×10^{-10}
E0	7.17×10^{-7}
E1	7.77×10^{-10}
$\lambda_{TK} (\mu m)$	0.224

部分分散および部分分散比 Partial Dispersions and Relative Partial Dispersions			
nC-nt	nC-nA'	nd-nC	ne-nC
0.01477	0.00651	0.00588	0.01059
$\theta_{C,t}$	$\theta_{C,A'}$	$\theta_{d,C}$	$\theta_{e,C}$
0.746	0.329	0.297	0.535
ng-nd	ng-nF	nh-ng	ni-ng
0.02513	0.01122	0.00958	0.02662
$\theta_{g,d}$	$\theta_{g,F(\Delta)}$	$\theta_{h,g}$	$\theta_{i,g}$
1.270	0.567 (-0.0088)	0.484	1.345
nC'-nt	ne-nC'	nF'-ne	ni-nF'
0.01570	0.00966	0.01036	0.03668
$\theta_{C',t}$	$\theta_{e,C'}$	$\theta_{F',e}$	$\theta_{i,F'}$
0.784	0.483	0.517	1.832

機械的性質 Mechanical Properties	熱的性質 Thermal Properties
ヌープ硬さ Hk Knoop Hardness 599 (6)	転移点 Tg (°C) Transformation Point 675
ビッカース硬さ Hv Vickers Hardness 624	屈伏点 At (°C) Yielding Point 709
摩耗度 Ha Abrasion 63	線膨張係数 $\alpha (\times 10^{-7} \text{°C}^{-1})$ Thermal Expansion
ヤング率 E ($\times 10^8 \text{N} \cdot \text{m}^{-2}$) Young's Modulus 1125	(-30~+70°C) 67 (+100~+300°C) 80
剛性率 G ($\times 10^8 \text{N} \cdot \text{m}^{-2}$) Modulus of Rigidity 438	熱伝導率 $\lambda (\text{W} \cdot \text{m}^{-1} \cdot \text{K}^{-1})$ Thermal Conductivity
ポアソン比 σ Poisson Ratio 0.284	比熱 Cp ($\text{J} \cdot \text{kg}^{-1} \cdot \text{K}^{-1}$) Specific Heat
化学的性質 Chemical Properties	その他 Other Properties
耐水性(粉末法) RW Water Resistance 1	泡 B Bubbles
耐酸性(粉末法) RA Acid Resistance 3	着色度 C Coloration 40/33
耐久性(表面法) DW Chemical Durability 1	比重 S.g Specific Gravity 4.17
備考 Remarks	生産頻度 PF Production frequency C

内部透過率 τ Internal Transmittance		
$\lambda(\text{nm})$	10mm	25mm
270		
280		
290		
300		
310	0.002	
320	0.017	
330	0.165	0.011
340	0.413	0.110
350	0.616	0.298
360	0.754	0.494
370	0.843	0.653
380	0.898	0.765
390	0.932	0.839
400	0.952	0.885
420	0.972	0.931
440	0.979	0.950
460	0.985	0.965
480	0.991	0.979
500	0.994	0.987
550	0.998	0.996
600	0.998	0.996
650	0.998	0.996
700	0.998	0.996
800	0.998	0.996
1060	0.998	0.996
1500	0.998	0.996
2000	0.985	0.964

屈折率の温度係数 Temperature Coefficients of Refractive Index						
	(dn/dT)rel. ($\times 10^{-6} \text{°C}^{-1}$)			(dn/dT)abs. ($\times 10^{-6} \text{°C}^{-1}$)		
(°C)	1548.1	d	g	1548.1	d	g
-40/-20	0.7	1.9	3.5	-1.7	-0.5	1.0
0/+20	2.1	3.5	5.3	0.4	1.7	3.4
+40/+60	1.9	3.4	5.3	0.6	2.0	3.9

805396 K-LaSF _n 2	nd	1.80500	ν d	39.6	nF-nC	0.02034
	ne	1.80983	ν e	39.3	nF'-nC'	0.02059

屈折率 Refractive Indices		
n1548	1548.1	1.77313
n1309	1308.5	1.77746
nt	1014.0	1.78379
nA'	768.2	1.79232
nr	706.5	1.79562
nC	656.3	1.79897
nC'	643.9	1.79992
nD	589.3	1.80482
nd	587.6	1.80500
ne	546.1	1.80983
nF	486.1	1.81931
nF'	480.0	1.82051
ng	435.8	1.83093
nh	404.7	1.84087
ni	365.0	1.85865

分散式の常数 Constants of Dispersion Formula	
A0	3.1666472
A1	$-1.4823032 \times 10^{-2}$
A2	3.0366123×10^{-2}
A3	1.0942894×10^{-3}
A4	$-4.2108569 \times 10^{-5}$
A5	5.7186779×10^{-6}

dn/dTの分散常数 Constants of Dispersion dn/dT abs.	
D0	5.26×10^{-6}
D1	1.83×10^{-8}
D2	-3.28×10^{-10}
E0	7.62×10^{-7}
E1	8.92×10^{-10}
$\lambda_{TK} (\mu m)$	0.222

部分分散および部分分散比 Partial Dispersions and Relative Partial Dispersions			
nC-nt	nC-nA'	nd-nC	ne-nC
0.01518	0.00665	0.00603	0.01086
$\theta_{C,t}$	$\theta_{C,A'}$	$\theta_{d,C}$	$\theta_{e,C}$
0.746	0.327	0.296	0.534
ng-nd	ng-nF	nh-ng	ni-ng
0.02593	0.01162	0.00994	0.02772
$\theta_{g,d}$	$\theta_{g,F(\Delta)}$	$\theta_{h,g}$	$\theta_{i,g}$
1.275	0.571 (-0.0063)	0.489	1.363
nC'-nt	ne-nC'	nF'-ne	ni-nF'
0.01613	0.00991	0.01068	0.03814
$\theta_{C',t}$	$\theta_{e,C'}$	$\theta_{F',e}$	$\theta_{i,F'}$
0.783	0.481	0.519	1.852

機械的性質 Mechanical Properties	熱的性質 Thermal Properties
ヌープ硬さ Hk Knoop Hardness 613 (6)	転移点 Tg (°C) Transformation Point 622
ビッカース硬さ Hv Vickers Hardness 637	屈伏点 At (°C) Yielding Point 654
摩耗度 Ha Abrasion 74	線膨張係数 $\alpha (\times 10^{-7} \text{°C}^{-1})$ Thermal Expansion
ヤング率 E ($\times 10^8 \text{N} \cdot \text{m}^{-2}$) Young's Modulus 1149	(-30~+70°C) 56 (+100~+300°C) 70
剛性率 G ($\times 10^8 \text{N} \cdot \text{m}^{-2}$) Modulus of Rigidity 447	熱伝導率 $\lambda (\text{W} \cdot \text{m}^{-1} \cdot \text{K}^{-1})$ Thermal Conductivity
ポアソン比 σ Poisson Ratio 0.286	比熱 Cp ($\text{J} \cdot \text{kg}^{-1} \cdot \text{K}^{-1}$) Specific Heat
化学的性質 Chemical Properties	その他 Other Properties
耐水性(粉末法) RW Water Resistance 1	泡 B Bubbles
耐酸性(粉末法) RA Acid Resistance 3	着色度 C Coloration 41/34
耐久性(表面法) DW Chemical Durability 1	比重 S.g Specific Gravity 4.13
備考 Remarks	生産頻度 PF Production frequency C

内部透過率 τ Internal Transmittance		
$\lambda(\text{nm})$	10mm	25mm
270		
280		
290		
300		
310		
320	0.001	
330	0.044	
340	0.261	0.035
350	0.517	0.193
360	0.700	0.410
370	0.811	0.593
380	0.882	0.731
390	0.924	0.821
400	0.949	0.878
420	0.970	0.927
440	0.982	0.956
460	0.988	0.971
480	0.993	0.982
500	0.997	0.994
550	0.998	0.998
600	0.998	0.998
650	0.998	0.998
700	0.998	0.998
800	0.998	0.998
1060	0.998	0.998
1500	0.998	0.998
2000	0.976	0.940

屈折率の温度係数 Temperature Coefficients of Refractive Index						
	(dn/dT)rel. ($\times 10^{-6} \text{°C}^{-1}$)			(dn/dT)abs. ($\times 10^{-6} \text{°C}^{-1}$)		
(°C)	1548.1	d	g	1548.1	d	g
-40/-20	3.1	4.5	6.2	0.8	2.0	3.7
0/+20	4.8	6.4	8.3	3.1	4.6	6.5
+40/+60	4.9	6.5	8.7	3.5	5.1	7.2

800423 K-LaSFn3	nd	1.79950	ν d	42.3	nF-nC	0.01890
	ne	1.80399	ν e	42.0	nF'-nC'	0.01913

屈折率 Refractive Indices		
n1548	1548.1	1.77015
n1309	1308.5	1.77399
nt	1014.0	1.77975
nA'	768.2	1.78765
nr	706.5	1.79074
nC	656.3	1.79388
nC'	643.9	1.79476
nD	589.3	1.79933
nd	587.6	1.79950
ne	546.1	1.80399
nF	486.1	1.81278
nF'	480.0	1.81389
ng	435.8	1.82350
nh	404.7	1.83262
ni	365.0	1.84862

分散式の常数 Constants of Dispersion Formula	
A0	3.1507226
A1	$-1.2460963 \times 10^{-2}$
A2	2.9910697×10^{-2}
A3	5.0733106×10^{-4}
A4	3.6278868×10^{-5}
A5	$-2.5019766 \times 10^{-8}$

dn/dTの分散常数 Constants of Dispersion dn/dT abs.	
D0	3.38×10^{-7}
D1	3.13×10^{-8}
D2	-2.27×10^{-11}
E0	6.92×10^{-7}
E1	5.55×10^{-10}
$\lambda_{TK} (\mu m)$	0.218

部分分散および部分分散比 Partial Dispersions and Relative Partial Dispersions			
nC-nt	nC-nA'	nd-nC	ne-nC
0.01413	0.00623	0.00562	0.01011
$\theta_{C,t}$	$\theta_{C,A'}$	$\theta_{d,C}$	$\theta_{e,C}$
0.748	0.330	0.297	0.535
ng-nd	ng-nF	nh-ng	ni-ng
0.02400	0.01072	0.00912	0.02512
$\theta_{g,d}$	$\theta_{g,F(\Delta)}$	$\theta_{h,g}$	$\theta_{i,g}$
1.270	0.567 (-0.0060)	0.483	1.329
nC'-nt	ne-nC'	nF'-ne	ni-nF'
0.01501	0.00923	0.00990	0.03473
$\theta_{C',t}$	$\theta_{e,C'}$	$\theta_{F',e}$	$\theta_{i,F'}$
0.785	0.482	0.518	1.815

機械的性質 Mechanical Properties	熱的性質 Thermal Properties
ヌープ硬さ Hk Knoop Hardness 672 (7)	転移点 Tg (°C) Transformation Point 699
ビッカース硬さ Hv Vickers Hardness 698	屈伏点 At (°C) Yielding Point 741
摩耗度 Ha Abrasion 101	線膨張係数 $\alpha (\times 10^{-7} \text{°C}^{-1})$ Thermal Expansion
ヤング率 E ($\times 10^8 \text{N} \cdot \text{m}^{-2}$) Young's Modulus 1068	(-30~+70°C) 69 (+100~+300°C) 80
剛性率 G ($\times 10^8 \text{N} \cdot \text{m}^{-2}$) Modulus of Rigidity 416	熱伝導率 $\lambda (\text{W} \cdot \text{m}^{-1} \cdot \text{K}^{-1})$ Thermal Conductivity
ポアソン比 σ Poisson Ratio 0.282	比熱 Cp ($\text{J} \cdot \text{kg}^{-1} \cdot \text{K}^{-1}$) Specific Heat
化学的性質 Chemical Properties	その他 Other Properties
耐水性(粉末法) RW Water Resistance 1	泡 B Bubbles
耐酸性(粉末法) RA Acid Resistance 3	着色度 C Coloration 40/33
耐久性(表面法) DW Chemical Durability 1	比重 S.g Specific Gravity 4.39
備考 Remarks	生産頻度 PF Production frequency C

内部透過率 τ Internal Transmittance		
$\lambda(\text{nm})$	3mm	10mm
270		
280		
290		
300		
310	0.224	
320	0.315	0.021
330	0.592	0.175
340	0.776	0.430
350	0.873	0.637
360	0.927	0.777
370	0.955	0.860
380	0.972	0.912
390	0.981	0.941
400	0.987	0.958
420	0.992	0.974
440	0.993	0.978
460	0.994	0.983
480	0.996	0.989
500	0.997	0.992
550	0.998	0.996
600	0.998	0.996
650	0.998	0.996
700	0.998	0.997
800	0.998	0.996
1060	0.999	0.999
1500	0.999	0.999
2000	0.994	0.983

屈折率の温度係数 Temperature Coefficients of Refractive Index						
	(dn/dT)rel. ($\times 10^{-6} \text{°C}^{-1}$)			(dn/dT)abs. ($\times 10^{-6} \text{°C}^{-1}$)		
(°C)	1548.1	d	g	1548.1	d	g
-40/-20	0.7	1.9	3.5	-1.6	-0.5	1.0
0/+20	1.7	3.0	4.7	0.0	1.2	2.9
+40/+60	2.8	4.2	6.0	1.5	2.9	4.6

785437 K-LaSFn4	nd	1.78500	ν d	43.7	nF-nC	0.01798
	ne	1.78927	ν e	43.4	nF'-nC'	0.01818

屈折率 Refractive Indices		
n1548	1548.1	1.75631
n1309	1308.5	1.76025
nt	1014.0	1.76600
nA'	768.2	1.77364
nr	706.5	1.77662
nC	656.3	1.77962
nC'	643.9	1.78047
nD	589.3	1.78484
nd	587.6	1.78500
ne	546.1	1.78927
nF	486.1	1.79760
nF'	480.0	1.79865
ng	435.8	1.80773
nh	404.7	1.81633
ni	365.0	1.83139

分散式の常数 Constants of Dispersion Formula	
A0	3.1049984
A1	$-1.3342479 \times 10^{-2}$
A2	2.7506526×10^{-2}
A3	7.5451621×10^{-4}
A4	$-1.6565687 \times 10^{-5}$
A5	2.7804810×10^{-6}

dn/dTの分散常数 Constants of Dispersion dn/dT abs.	
D0	-6.24×10^{-7}
D1	1.69×10^{-8}
D2	-1.42×10^{-10}
E0	6.93×10^{-7}
E1	1.19×10^{-9}
$\lambda_{TK} (\mu m)$	0.208

部分分散および部分分散比 Partial Dispersions and Relative Partial Dispersions			
nC-nt	nC-nA'	nd-nC	ne-nC
0.01362	0.00598	0.00538	0.00965
$\theta_{C,t}$	$\theta_{C,A'}$	$\theta_{d,C}$	$\theta_{e,C}$
0.758	0.333	0.299	0.537
ng-nd	ng-nF	nh-ng	ni-ng
0.02273	0.01013	0.00860	0.02366
$\theta_{g,d}$	$\theta_{g,F(\Delta)}$	$\theta_{h,g}$	$\theta_{i,g}$
1.264	0.563 (-0.0077)	0.478	1.316
nC'-nt	ne-nC'	nF'-ne	ni-nF'
0.01447	0.00880	0.00938	0.03274
$\theta_{C',t}$	$\theta_{e,C'}$	$\theta_{F',e}$	$\theta_{i,F'}$
0.796	0.484	0.516	1.801

機械的性質 Mechanical Properties	熱的性質 Thermal Properties
ヌープ硬さ Hk Knoop Hardness 646 (6)	転移点 Tg (°C) Transformation Point 675
ビッカース硬さ Hv Vickers Hardness 692	屈伏点 At (°C) Yielding Point 700
摩耗度 Ha Abrasion 93	線膨張係数 $\alpha (\times 10^{-7} \text{°C}^{-1})$ Thermal Expansion
ヤング率 E ($\times 10^8 \text{N} \cdot \text{m}^{-2}$) Young's Modulus 1134	(-30~+70°C) 69 (+100~+300°C) 83
剛性率 G ($\times 10^8 \text{N} \cdot \text{m}^{-2}$) Modulus of Rigidity 443	熱伝導率 $\lambda (\text{W} \cdot \text{m}^{-1} \cdot \text{K}^{-1})$ Thermal Conductivity
ポアソン比 σ Poisson Ratio 0.281	比熱 Cp ($\text{J} \cdot \text{kg}^{-1} \cdot \text{K}^{-1}$) Specific Heat
化学的性質 Chemical Properties	その他 Other Properties
耐水性(粉末法) RW Water Resistance 1	泡 B Bubbles
耐酸性(粉末法) RA Acid Resistance 3	着色度 C Coloration 39/32
耐久性(表面法) DW Chemical Durability 1	比重 S.g Specific Gravity 4.12
備考 Remarks	生産頻度 PF Production frequency

内部透過率 τ Internal Transmittance		
$\lambda(\text{nm})$	10mm	25mm
270		
280		
290		
300		
310	0.002	
320	0.061	
330	0.281	0.041
340	0.527	0.202
350	0.701	0.412
360	0.812	0.595
370	0.881	0.729
380	0.923	0.820
390	0.949	0.878
400	0.963	0.910
420	0.975	0.939
440	0.981	0.954
460	0.986	0.967
480	0.990	0.977
500	0.994	0.986
550	0.997	0.994
600	0.997	0.990
650	0.997	0.994
700	0.998	0.996
800	0.998	0.996
1060	0.998	0.997
1500	0.998	0.997
2000	0.980	0.951

屈折率の温度係数 Temperature Coefficients of Refractive Index						
	(dn/dT)rel. ($\times 10^{-6} \text{°C}^{-1}$)			(dn/dT)abs. ($\times 10^{-6} \text{°C}^{-1}$)		
(°C)	1548.1	d	g	1548.1	d	g
-40/-20	0.5	1.5	2.8	-1.9	-0.9	0.3
0/+20	1.3	2.5	4.1	-0.4	0.7	2.2
+40/+60	1.5	2.9	4.7	0.2	1.6	3.3

804466 K-LaSFn6	nd	1.80400	ν d	46.6	nF-nC	0.01726
	ne	1.80811	ν e	46.3	nF'-nC'	0.01744

屈折率 Refractive Indices		
n1548	1548.1	1.77522
n1309	1308.5	1.77943
nt	1014.0	1.78538
nA'	768.2	1.79301
nr	706.5	1.79591
nC	656.3	1.79882
nC'	643.9	1.79964
nD	589.3	1.80385
nd	587.6	1.80400
ne	546.1	1.80811
nF	486.1	1.81608
nF'	480.0	1.81708
ng	435.8	1.82568
nh	404.7	1.83376
ni	365.0	1.84782

分散式の常数 Constants of Dispersion Formula	
A0	3.1766024
A1	$-1.5214563 \times 10^{-2}$
A2	2.6674405×10^{-2}
A3	7.4674513×10^{-4}
A4	$-2.6350800 \times 10^{-5}$
A5	2.7514981×10^{-6}

dn/dTの分散常数 Constants of Dispersion dn/dT abs.	
D0	1.72×10^{-6}
D1	1.48×10^{-8}
D2	-1.94×10^{-10}
E0	5.94×10^{-7}
E1	9.48×10^{-10}
$\lambda_{TK} (\mu m)$	0.205

部分分散および部分分散比 Partial Dispersions and Relative Partial Dispersions			
nC-nt	nC-nA'	nd-nC	ne-nC
0.01344	0.00581	0.00518	0.00929
$\theta_{C,t}$	$\theta_{C,A'}$	$\theta_{d,C}$	$\theta_{e,C}$
0.779	0.337	0.300	0.538
ng-nd	ng-nF	nh-ng	ni-ng
0.02168	0.00960	0.00808	0.02214
$\theta_{g,d}$	$\theta_{g,F(\Delta)}$	$\theta_{h,g}$	$\theta_{i,g}$
1.256	0.556 (-0.0096)	0.468	1.283
nC'-nt	ne-nC'	nF'-ne	ni-nF'
0.01426	0.00847	0.00897	0.03074
$\theta'_{C',t}$	$\theta'_{e,C'}$	$\theta'_{F',e}$	$\theta'_{i,F'}$
0.818	0.486	0.514	1.763

機械的性質 Mechanical Properties	熱的性質 Thermal Properties
ヌープ硬さ Hk Knoop Hardness 587 (6)	転移点 Tg (°C) Transformation Point 686
ビッカース硬さ Hv Vickers Hardness 579	屈伏点 At (°C) Yielding Point 710
摩耗度 Ha Abrasion 60	線膨張係数 $\alpha (\times 10^{-7} \text{°C}^{-1})$ Thermal Expansion
ヤング率 E ($\times 10^8 \text{N} \cdot \text{m}^{-2}$) Young's Modulus 1231	(-30~+70°C) 59 (+100~+300°C) 74
剛性率 G ($\times 10^8 \text{N} \cdot \text{m}^{-2}$) Modulus of Rigidity 475	熱伝導率 $\lambda (\text{W} \cdot \text{m}^{-1} \cdot \text{K}^{-1})$ Thermal Conductivity
ポアソン比 σ Poisson Ratio 0.295	比熱 Cp ($\text{J} \cdot \text{kg}^{-1} \cdot \text{K}^{-1}$) Specific Heat
化学的性質 Chemical Properties	その他 Other Properties
耐水性(粉末法) RW Water Resistance 1	泡 B Bubbles
耐酸性(粉末法) RA Acid Resistance 3	着色度 C Coloration 39/32
耐久性(表面法) DW Chemical Durability 1	比重 S.g Specific Gravity 4.72
備考 Remarks	生産頻度 PF Production frequency

内部透過率 τ Internal Transmittance		
$\lambda(\text{nm})$	10mm	25mm
270		
280		
290		
300		
310	0.005	
320	0.108	0.003
330	0.348	0.071
340	0.570	0.245
350	0.725	0.448
360	0.820	0.609
370	0.874	0.715
380	0.913	0.797
390	0.933	0.841
400	0.947	0.873
420	0.960	0.903
440	0.966	0.918
460	0.970	0.928
480	0.973	0.935
500	0.985	0.958
550	0.993	0.980
600	0.995	0.987
650	0.998	0.996
700	0.998	0.996
800	0.998	0.996
1060	0.998	0.996
1500	0.998	0.996
2000	0.971	0.930

屈折率の温度係数 Temperature Coefficients of Refractive Index						
	(dn/dT)rel. ($\times 10^{-6} \text{°C}^{-1}$)			(dn/dT)abs. ($\times 10^{-6} \text{°C}^{-1}$)		
(°C)	1548.1	d	g	1548.1	d	g
-40/-20	1.8	2.7	3.9	-0.6	0.3	1.4
0/+20	2.7	3.8	5.2	1.0	2.0	3.4
+40/+60	2.8	4.0	5.6	1.4	2.6	4.1

773496 K-LaSFn7	nd	1.77250	ν d	49.6	nF-nC	0.01558
	ne	1.77621	ν e	49.3	nF'-nC'	0.01573

屈折率 Refractive Indices		
n1548	1548.1	1.74571
n1309	1308.5	1.74978
nt	1014.0	1.75544
nA'	768.2	1.76247
nr	706.5	1.76514
nC	656.3	1.76779
nC'	643.9	1.76854
nD	589.3	1.77236
nd	587.6	1.77250
ne	546.1	1.77621
nF	486.1	1.78337
nF'	480.0	1.78427
ng	435.8	1.79196
nh	404.7	1.79920
ni	365.0	1.81159

分散式の常数 Constants of Dispersion Formula	
A0	3.0728806
A1	$-1.4815338 \times 10^{-2}$
A2	2.4064142×10^{-2}
A3	4.9961497×10^{-4}
A4	1.2852807×10^{-6}
A5	5.2262074×10^{-7}

dn/dTの分散常数 Constants of Dispersion dn/dT abs.	
D0	2.19×10^{-6}
D1	1.73×10^{-8}
D2	-1.56×10^{-10}
E0	5.97×10^{-7}
E1	3.56×10^{-10}
$\lambda_{TK} (\mu m)$	0.161

部分分散および部分分散比 Partial Dispersions and Relative Partial Dispersions			
nC-nt	nC-nA'	nd-nC	ne-nC
0.01235	0.00532	0.00471	0.00842
$\theta_{C,t}$	$\theta_{C,A'}$	$\theta_{d,C}$	$\theta_{e,C}$
0.793	0.341	0.302	0.540
ng-nd	ng-nF	nh-ng	ni-ng
0.01946	0.00859	0.00724	0.01963
$\theta_{g,d}$	$\theta_{g,F(\Delta)}$	$\theta_{h,g}$	$\theta_{i,g}$
1.249	0.551 (-0.0097)	0.465	1.260
nC'-nt	ne-nC'	nF'-ne	ni-nF'
0.01310	0.00767	0.00806	0.02732
$\theta_{C',t}$	$\theta_{e,C'}$	$\theta_{F',e}$	$\theta_{i,F'}$
0.833	0.488	0.512	1.737

機械的性質 Mechanical Properties	熱的性質 Thermal Properties
ヌープ硬さ Hk Knoop Hardness 705 (7)	転移点 Tg (°C) Transformation Point 673
ビッカース硬さ Hv Vickers Hardness 752	屈伏点 At (°C) Yielding Point 697
摩耗度 Ha Abrasion 60	線膨張係数 $\alpha (\times 10^{-7} \text{°C}^{-1})$ Thermal Expansion
ヤング率 E ($\times 10^8 \text{N} \cdot \text{m}^{-2}$) Young's Modulus 1205	(-30~+70°C) 57 (+100~+300°C) 72
剛性率 G ($\times 10^8 \text{N} \cdot \text{m}^{-2}$) Modulus of Rigidity 465	熱伝導率 $\lambda (\text{W} \cdot \text{m}^{-1} \cdot \text{K}^{-1})$ Thermal Conductivity
ポアソン比 σ Poisson Ratio 0.297	比熱 Cp ($\text{J} \cdot \text{kg}^{-1} \cdot \text{K}^{-1}$) Specific Heat
化学的性質 Chemical Properties	その他 Other Properties
耐水性(粉末法) RW Water Resistance 1	泡 B Bubbles
耐酸性(粉末法) RA Acid Resistance 3	着色度 C Coloration 38/31
耐久性(表面法) DW Chemical Durability 1	比重 S.g Specific Gravity 4.44
備考 Remarks	生産頻度 PF Production frequency

内部透過率 τ Internal Transmittance		
$\lambda(\text{nm})$	10mm	25mm
270		
280		
290		
300	0.019	
310	0.107	
320	0.359	0.077
330	0.553	0.227
340	0.707	0.421
350	0.816	0.601
360	0.886	0.739
370	0.932	0.838
380	0.955	0.892
390	0.974	0.936
400	0.980	0.951
420	0.987	0.970
440	0.991	0.979
460	0.993	0.983
480	0.996	0.991
500	0.996	0.991
550	0.997	0.993
600	0.998	0.995
650	0.998	0.995
700	0.998	0.996
800	0.998	0.996
1060	0.998	0.996
1500	0.997	0.994
2000	0.968	0.923

屈折率の温度係数 Temperature Coefficients of Refractive Index						
	(dn/dT)rel. ($\times 10^{-6} \text{°C}^{-1}$)			(dn/dT)abs. ($\times 10^{-6} \text{°C}^{-1}$)		
(°C)	1548.1	d	g	1548.1	d	g
-40/-20	2.1	3.0	4.1	-0.3	0.6	1.7
0/+20	2.9	4.0	5.1	1.2	2.2	3.3
+40/+60	3.1	4.2	5.5	1.8	2.9	4.1

835427 K-LaSFn8	nd	1.83500	ν d	42.7	nF-nC	0.01954
	ne	1.83964	ν e	42.5	nF'-nC'	0.01976

屈折率 Refractive Indices		
n1548	1548.1	1.80374
n1309	1308.5	1.80806
nt	1014.0	1.81434
nA'	768.2	1.82269
nr	706.5	1.82591
nC	656.3	1.82917
nC'	643.9	1.83009
nD	589.3	1.83483
nd	587.6	1.83500
ne	546.1	1.83964
nF	486.1	1.84871
nF'	480.0	1.84985
ng	435.8	1.85972
nh	404.7	1.86905
ni	365.0	1.88540

分散式の常数 Constants of Dispersion Formula	
A0	3.2767321
A1	$-1.5115573 \times 10^{-2}$
A2	3.0753445×10^{-2}
A3	7.8350578×10^{-4}
A4	$-3.4594495 \times 10^{-6}$
A5	2.0542573×10^{-6}

dn/dTの分散常数 Constants of Dispersion dn/dT abs.	
D0	1.92×10^{-6}
D1	1.65×10^{-8}
D2	-2.32×10^{-10}
E0	6.04×10^{-7}
E1	6.91×10^{-10}
$\lambda_{TK} (\mu m)$	0.225

部分分散および部分分散比 Partial Dispersions and Relative Partial Dispersions			
nC-nt	nC-nA'	nd-nC	ne-nC
0.01483	0.00648	0.00583	0.01047
$\theta_{C,t}$	$\theta_{C,A'}$	$\theta_{d,C}$	$\theta_{e,C}$
0.759	0.332	0.298	0.536
ng-nd	ng-nF	nh-ng	ni-ng
0.02472	0.01101	0.00933	0.02568
$\theta_{g,d}$	$\theta_{g,F(\Delta)}$	$\theta_{h,g}$	$\theta_{i,g}$
1.265	0.563 (-0.0093)	0.477	1.314
nC'-nt	ne-nC'	nF'-ne	ni-nF'
0.01575	0.00955	0.01021	0.03555
$\theta_{C',t}$	$\theta_{e,C'}$	$\theta_{F',e}$	$\theta_{i,F'}$
0.797	0.483	0.517	1.799

機械的性質 Mechanical Properties	熱的性質 Thermal Properties
ヌープ硬さ Hk Knoop Hardness 602 (6)	転移点 Tg (°C) Transformation Point 687
ビッカース硬さ Hv Vickers Hardness 620	屈伏点 At (°C) Yielding Point 709
摩耗度 Ha Abrasion 65	線膨張係数 $\alpha (\times 10^{-7} \text{°C}^{-1})$ Thermal Expansion
ヤング率 E ($\times 10^8 \text{N} \cdot \text{m}^{-2}$) Young's Modulus 1240	(-30~+70°C) 60 (+100~+300°C) 74
剛性率 G ($\times 10^8 \text{N} \cdot \text{m}^{-2}$) Modulus of Rigidity 481	熱伝導率 $\lambda (\text{W} \cdot \text{m}^{-1} \cdot \text{K}^{-1})$ Thermal Conductivity
ポアソン比 σ Poisson Ratio 0.290	比熱 Cp ($\text{J} \cdot \text{kg}^{-1} \cdot \text{K}^{-1}$) Specific Heat
化学的性質 Chemical Properties	その他 Other Properties
耐水性(粉末法) RW Water Resistance 1	泡 B Bubbles
耐酸性(粉末法) RA Acid Resistance 2	着色度 C Coloration 41/33
耐久性(表面法) DW Chemical Durability 1	比重 S.g Specific Gravity 4.90
備考 Remarks	生産頻度 PF Production frequency

内部透過率 τ Internal Transmittance		
$\lambda(\text{nm})$	10mm	25mm
270		
280		
290		
300		
310	0.003	
320	0.043	
330	0.211	0.020
340	0.432	0.123
350	0.619	0.301
360	0.758	0.500
370	0.847	0.659
380	0.903	0.775
390	0.938	0.851
400	0.955	0.892
420	0.976	0.940
440	0.983	0.959
460	0.990	0.975
480	0.991	0.978
500	0.994	0.986
550	0.998	0.995
600	0.998	0.993
650	0.998	0.990
700	0.998	0.995
800	0.998	0.987
1060	0.998	0.996
1500	0.998	0.995
2000	0.973	0.933

屈折率の温度係数 Temperature Coefficients of Refractive Index						
	(dn/dT)rel. ($\times 10^{-6} \text{°C}^{-1}$)			(dn/dT)abs. ($\times 10^{-6} \text{°C}^{-1}$)		
(°C)	1548.1	d	g	1548.1	d	g
-40/-20	1.6	2.7	4.1	-0.8	0.2	1.6
0/+20	2.9	4.1	5.7	1.1	2.3	3.8
+40/+60	3.0	4.3	6.0	1.6	2.9	4.6

835427 K-LaSFn8W	nd	1.83490	ν d	42.7	nF-nC	0.01956
	ne	1.83955	ν e	42.4	nF'-nC'	0.01978

屈折率 Refractive Indices		
n1548	1548.1	1.80361
n1309	1308.5	1.80794
nt	1014.0	1.81423
nA'	768.2	1.82257
nr	706.5	1.82580
nC	656.3	1.82906
nC'	643.9	1.82998
nD	589.3	1.83472
nd	587.6	1.83490
ne	546.1	1.83955
nF	486.1	1.84862
nF'	480.0	1.84976
ng	435.8	1.85964
nh	404.7	1.86897
ni	365.0	1.88525

分散式の常数 Constants of Dispersion Formula	
A0	3.2764440
A1	$-1.5177935 \times 10^{-2}$
A2	3.0678303×10^{-2}
A3	7.9395960×10^{-4}
A4	8.2678979×10^{-7}
A5	1.3913562×10^{-6}

dn/dTの分散常数 Constants of Dispersion dn/dT abs.	
D0	2.11×10^{-6}
D1	1.69×10^{-8}
D2	-2.52×10^{-10}
E0	4.90×10^{-7}
E1	-7.53×10^{-10}
$\lambda_{TK} (\mu m)$	0.253

部分分散および部分分散比 Partial Dispersions and Relative Partial Dispersions			
nC-nt	nC-nA'	nd-nC	ne-nC
0.01483	0.00649	0.00584	0.01049
$\theta_{C,t}$	$\theta_{C,A'}$	$\theta_{d,C}$	$\theta_{e,C}$
0.758	0.332	0.299	0.536
ng-nd	ng-nF	nh-ng	ni-ng
0.02474	0.01102	0.00933	0.02561
$\theta_{g,d}$	$\theta_{g,F(\Delta)}$	$\theta_{h,g}$	$\theta_{i,g}$
1.265	0.563 (-0.0093)	0.477	1.309
nC'-nt	ne-nC'	nF'-ne	ni-nF'
0.01575	0.00957	0.01021	0.03549
$\theta_{C',t}$	$\theta_{e,C'}$	$\theta_{F',e}$	$\theta_{i,F'}$
0.796	0.484	0.516	1.794

機械的性質 Mechanical Properties	熱的性質 Thermal Properties
ヌープ硬さ Hk Knoop Hardness 656 (7)	転移点 Tg (°C) Transformation Point 673
ビッカース硬さ Hv Vickers Hardness 601	屈伏点 At (°C) Yielding Point 704
摩耗度 Ha Abrasion 69	線膨張係数 $\alpha (\times 10^{-7} \text{°C}^{-1})$ Thermal Expansion
ヤング率 E ($\times 10^8 \text{N} \cdot \text{m}^{-2}$) Young's Modulus 1248	(-30~+70°C) 60 (+100~+300°C) 65
剛性率 G ($\times 10^8 \text{N} \cdot \text{m}^{-2}$) Modulus of Rigidity 480	熱伝導率 $\lambda (\text{W} \cdot \text{m}^{-1} \cdot \text{K}^{-1})$ Thermal Conductivity
ポアソン比 σ Poisson Ratio 0.300	比熱 Cp ($\text{J} \cdot \text{kg}^{-1} \cdot \text{K}^{-1}$) Specific Heat
化学的性質 Chemical Properties	その他 Other Properties
耐水性(粉末法) RW Water Resistance 1	泡 B Bubbles
耐酸性(粉末法) RA Acid Resistance 2	着色度 C Coloration 39/32
耐久性(表面法) DW Chemical Durability 1	比重 S.g Specific Gravity 4.88
備考 Remarks	生産頻度 PF Production frequency

内部透過率 τ Internal Transmittance		
$\lambda(\text{nm})$	3mm	10mm
270		
280		
290		
300		
310	0.188	
320	0.577	0.161
330	0.794	0.464
340	0.888	0.674
350	0.932	0.793
360	0.958	0.867
370	0.972	0.911
380	0.982	0.942
390	0.987	0.959
400	0.990	0.970
420	0.994	0.981
440	0.996	0.987
460	0.997	0.991
480	0.998	0.994
500	0.998	0.996
550	0.999	0.998
600	0.999	0.998
650	0.999	0.998
700	0.999	0.999
800	0.999	0.998
1060	0.999	0.999
1500	0.999	0.997
2000	0.992	0.974

屈折率の温度係数 Temperature Coefficients of Refractive Index						
	(dn/dT)rel. ($\times 10^{-6} \text{°C}^{-1}$)			(dn/dT)abs. ($\times 10^{-6} \text{°C}^{-1}$)		
(°C)	1548.1	d	g	1548.1	d	g
-40/-20	1.6	2.8	4.6	-0.8	0.3	2.0
0/+20	3.0	4.1	5.7	1.2	2.3	3.8
+40/+60	3.0	4.0	5.4	1.6	2.6	4.0

816467 K-LaSF _n 9	nd	1.81600	ν d	46.7	nF-nC	0.01748
	ne	1.82018	ν e	46.4	nF'-nC'	0.01767

屈折率 Refractive Indices		
n1548	1548.1	1.78721
n1309	1308.5	1.79134
nt	1014.0	1.79726
nA'	768.2	1.80488
nr	706.5	1.80781
nC	656.3	1.81076
nC'	643.9	1.81158
nD	589.3	1.81585
nd	587.6	1.81600
ne	546.1	1.82018
nF	486.1	1.82824
nF'	480.0	1.82925
ng	435.8	1.83797
nh	404.7	1.84615
ni	365.0	1.86032

分散式の常数 Constants of Dispersion Formula	
A0	3.2184433
A1	$-1.4906369 \times 10^{-2}$
A2	2.6926190×10^{-2}
A3	8.7409748×10^{-4}
A4	$-4.0331281 \times 10^{-5}$
A5	3.1677745×10^{-6}

dn/dTの分散常数 Constants of Dispersion dn/dT abs.	
D0	1.34×10^{-6}
D1	2.13×10^{-8}
D2	-1.52×10^{-10}
E0	5.80×10^{-7}
E1	6.95×10^{-10}
$\lambda_{TK} (\mu m)$	0.204

部分分散および部分分散比 Partial Dispersions and Relative Partial Dispersions			
nC-nt	nC-nA'	nd-nC	ne-nC
0.01350	0.00588	0.00524	0.00942
$\theta_{C,t}$	$\theta_{C,A'}$	$\theta_{d,C}$	$\theta_{e,C}$
0.772	0.336	0.300	0.539
ng-nd	ng-nF	nh-ng	ni-ng
0.02197	0.00973	0.00818	0.02235
$\theta_{g,d}$	$\theta_{g,F(\Delta)}$	$\theta_{h,g}$	$\theta_{i,g}$
1.257	0.557 (-0.0086)	0.468	1.279
nC'-nt	ne-nC'	nF'-ne	ni-nF'
0.01432	0.00860	0.00907	0.03107
$\theta_{C',t}$	$\theta_{e,C'}$	$\theta_{F',e}$	$\theta_{i,F'}$
0.810	0.487	0.513	1.758

機械的性質 Mechanical Properties	熱的性質 Thermal Properties
ヌープ硬さ Hk Knoop Hardness 769 (7)	転移点 Tg (°C) Transformation Point 693
ビッカース硬さ Hv Vickers Hardness 786	屈伏点 At (°C) Yielding Point 719
摩耗度 Ha Abrasion 50	線膨張係数 $\alpha (\times 10^{-7} \text{°C}^{-1})$ Thermal Expansion
ヤング率 E ($\times 10^8 \text{N} \cdot \text{m}^{-2}$) Young's Modulus 1238	(-30~+70°C) 63 (+100~+300°C) 76
剛性率 G ($\times 10^8 \text{N} \cdot \text{m}^{-2}$) Modulus of Rigidity 477	熱伝導率 $\lambda (\text{W} \cdot \text{m}^{-1} \cdot \text{K}^{-1})$ Thermal Conductivity
ポアソン比 σ Poisson Ratio 0.298	比熱 Cp ($\text{J} \cdot \text{kg}^{-1} \cdot \text{K}^{-1}$) Specific Heat
化学的性質 Chemical Properties	その他 Other Properties
耐水性(粉末法) RW Water Resistance 1	泡 B Bubbles
耐酸性(粉末法) RA Acid Resistance 3	着色度 C Coloration 40/32
耐久性(表面法) DW Chemical Durability 1	比重 S.g Specific Gravity 4.96
備考 Remarks	生産頻度 PF Production frequency

内部透過率 τ Internal Transmittance		
$\lambda(\text{nm})$	10mm	25mm
270		
280		
290		
300		
310	0.013	
320	0.111	
330	0.241	0.028
340	0.405	0.104
350	0.576	0.252
360	0.714	0.430
370	0.819	0.608
380	0.883	0.733
390	0.923	0.820
400	0.947	0.874
420	0.968	0.923
440	0.977	0.944
460	0.981	0.954
480	0.982	0.957
500	0.985	0.964
550	0.988	0.971
600	0.991	0.978
650	0.995	0.989
700	0.997	0.992
800	0.998	0.996
1060	0.990	0.971
1500	0.990	0.971
2000	0.961	0.906

屈折率の温度係数 Temperature Coefficients of Refractive Index						
	(dn/dT)rel. ($\times 10^{-6} \text{°C}^{-1}$)			(dn/dT)abs. ($\times 10^{-6} \text{°C}^{-1}$)		
(°C)	1548.1	d	g	1548.1	d	g
-40/-20	1.3	2.3	3.5	-1.1	-0.2	1.0
0/+20	2.4	3.5	4.9	0.7	1.7	3.0
+40/+60	2.9	4.1	5.6	1.5	2.7	4.1

816444 K-LaSFn10	nd	1.81550	ν d	44.4	nF-nC	0.01836
	ne	1.81987	ν e	44.2	nF'-nC'	0.01856

屈折率 Refractive Indices		
n1548	1548.1	1.78533
n1309	1308.5	1.78966
nt	1014.0	1.79586
nA'	768.2	1.80383
nr	706.5	1.80690
nC	656.3	1.80999
nC'	643.9	1.81086
nD	589.3	1.81534
nd	587.6	1.81550
ne	546.1	1.81987
nF	486.1	1.82835
nF'	480.0	1.82942
ng	435.8	1.83863
nh	404.7	1.84731
ni	365.0	1.86242

分散式の常数 Constants of Dispersion Formula	
A0	3.2128137
A1	$-1.5587464 \times 10^{-2}$
A2	2.8249299×10^{-2}
A3	8.6439607×10^{-4}
A4	$-2.9175496 \times 10^{-5}$
A5	2.9912535×10^{-6}

dn/dTの分散常数 Constants of Dispersion dn/dT abs.	
D0	3.02×10^{-6}
D1	1.34×10^{-8}
D2	-1.66×10^{-10}
E0	6.41×10^{-7}
E1	6.88×10^{-10}
$\lambda_{TK} (\mu m)$	0.194

部分分散および部分分散比 Partial Dispersions and Relative Partial Dispersions			
nC-nt	nC-nA'	nd-nC	ne-nC
0.01413	0.00616	0.00551	0.00988
$\theta_{C,t}$	$\theta_{C,A'}$	$\theta_{d,C}$	$\theta_{e,C}$
0.770	0.336	0.300	0.538
ng-nd	ng-nF	nh-ng	ni-ng
0.02313	0.01028	0.00868	0.02379
$\theta_{g,d}$	$\theta_{g,F(\Delta)}$	$\theta_{h,g}$	$\theta_{i,g}$
1.260	0.560 (-0.0095)	0.473	1.296
nC'-nt	ne-nC'	nF'-ne	ni-nF'
0.01500	0.00901	0.00955	0.03300
$\theta_{C',t}$	$\theta_{e,C'}$	$\theta_{F',e}$	$\theta_{i,F'}$
0.808	0.485	0.515	1.778

機械的性質 Mechanical Properties	熱的性質 Thermal Properties
ヌープ硬さ Hk Knoop Hardness 735 (7)	転移点 Tg (°C) Transformation Point 683
ビッカース硬さ Hv Vickers Hardness 739	屈伏点 At (°C) Yielding Point 710
摩耗度 Ha Abrasion 60	線膨張係数 $\alpha (\times 10^{-7} \text{°C}^{-1})$ Thermal Expansion
ヤング率 E ($\times 10^8 \text{N} \cdot \text{m}^{-2}$) Young's Modulus 1236	(-30~+70°C) 56 (+100~+300°C) 72
剛性率 G ($\times 10^8 \text{N} \cdot \text{m}^{-2}$) Modulus of Rigidity 477	熱伝導率 $\lambda (\text{W} \cdot \text{m}^{-1} \cdot \text{K}^{-1})$ Thermal Conductivity
ポアソン比 σ Poisson Ratio 0.294	比熱 Cp ($\text{J} \cdot \text{kg}^{-1} \cdot \text{K}^{-1}$) Specific Heat
化学的性質 Chemical Properties	その他 Other Properties
耐水性(粉末法) RW Water Resistance 1	泡 B Bubbles
耐酸性(粉末法) RA Acid Resistance 2	着色度 C Coloration 41/34
耐久性(表面法) DW Chemical Durability 1	比重 S.g Specific Gravity 4.80
備考 Remarks	生産頻度 PF Production frequency

内部透過率 τ Internal Transmittance		
$\lambda (\text{nm})$	10mm	25mm
270		
280		
290		
300		
310		
320		
330		
340	0.079	
350	0.371	0.084
360	0.634	0.320
370	0.799	0.571
380	0.876	0.719
390	0.922	0.817
400	0.940	0.857
420	0.964	0.913
440	0.971	0.930
460	0.975	0.940
480	0.981	0.954
500	0.985	0.964
550	0.988	0.971
600	0.991	0.978
650	0.995	0.989
700	0.997	0.992
800	0.998	0.996
1060	0.971	0.930
1500	0.971	0.930
2000	0.929	0.832

屈折率の温度係数 Temperature Coefficients of Refractive Index						
	(dn/dT)rel. ($\times 10^{-6} \text{°C}^{-1}$)			(dn/dT)abs. ($\times 10^{-6} \text{°C}^{-1}$)		
(°C)	1548.1	d	g	1548.1	d	g
-40/-20	2.8	3.9	5.2	0.4	1.5	2.7
0/+20	3.6	4.8	6.3	1.8	3.0	4.4
+40/+60	3.6	4.9	6.5	2.2	3.5	5.1

834373 K-LaSFn14	nd	1.83400	ν d	37.3	nF-nC	0.02233
	ne	1.83929	ν e	37.1	nF'-nC'	0.02263

屈折率 Refractive Indices		
n1548	1548.1	1.79973
n1309	1308.5	1.80431
nt	1014.0	1.81116
nA'	768.2	1.82021
nr	706.5	1.82378
nC	656.3	1.82742
nC'	643.9	1.82845
nD	589.3	1.83380
nd	587.6	1.83400
ne	546.1	1.83929
nF	486.1	1.84975
nF'	480.0	1.85108
ng	435.8	1.86268
nh	404.7	1.87385
ni	365.0	

分散式の常数 Constants of Dispersion Formula	
A0	3.2643191
A1	$-1.6265121 \times 10^{-2}$
A2	3.2028380×10^{-2}
A3	1.5271854×10^{-3}
A4	$-4.7775544 \times 10^{-5}$
A5	5.7345907×10^{-6}

dn/dTの分散常数 Constants of Dispersion dn/dT abs.	
D0	2.04×10^{-6}
D1	1.48×10^{-8}
D2	-2.22×10^{-10}
E0	7.19×10^{-7}
E1	7.99×10^{-10}
$\lambda_{TK} (\mu m)$	0.248

部分分散および部分分散比 Partial Dispersions and Relative Partial Dispersions			
nC-nt	nC-nA'	nd-nC	ne-nC
0.01626	0.00721	0.00658	0.01187
$\theta_{C,t}$	$\theta_{C,A'}$	$\theta_{d,C}$	$\theta_{e,C}$
0.728	0.323	0.295	0.532
ng-nd	ng-nF	nh-ng	ni-ng
0.02868	0.01293	0.01117	
$\theta_{g,d}$	$\theta_{g,F(\Delta)}$	$\theta_{h,g}$	$\theta_{i,g}$
1.284	0.579 (-0.0024)	0.500	
nC'-nt	ne-nC'	nF'-ne	ni-nF'
0.01729	0.01084	0.01179	
$\theta_{C',t}$	$\theta_{e,C'}$	$\theta_{F',e}$	$\theta_{i,F'}$
0.764	0.479	0.521	

機械的性質 Mechanical Properties	熱的性質 Thermal Properties
ヌープ硬さ Hk Knoop Hardness 610 (6)	転移点 Tg (°C) Transformation Point 648
ビッカース硬さ Hv Vickers Hardness 607	屈伏点 At (°C) Yielding Point 673
摩耗度 Ha Abrasion 70	線膨張係数 $\alpha (\times 10^{-7} \text{°C}^{-1})$ Thermal Expansion
ヤング率 E ($\times 10^8 \text{N} \cdot \text{m}^{-2}$) Young's Modulus 1178	(-30~+70°C) 58 (+100~+300°C) 75
剛性率 G ($\times 10^8 \text{N} \cdot \text{m}^{-2}$) Modulus of Rigidity 460	熱伝導率 $\lambda (\text{W} \cdot \text{m}^{-1} \cdot \text{K}^{-1})$ Thermal Conductivity
ポアソン比 σ Poisson Ratio 0.279	比熱 Cp ($\text{J} \cdot \text{kg}^{-1} \cdot \text{K}^{-1}$) Specific Heat
化学的性質 Chemical Properties	その他 Other Properties
耐水性(粉末法) RW Water Resistance 1	泡 B Bubbles
耐酸性(粉末法) RA Acid Resistance 3	着色度 C Coloration 43/35
耐久性(表面法) DW Chemical Durability 1	比重 S.g Specific Gravity 4.18
備考 Remarks	生産頻度 PF Production frequency

内部透過率 τ Internal Transmittance		
$\lambda(\text{nm})$	10mm	25mm
270		
280		
290		
300		
310		
320		
330		
340	0.030	
350	0.091	0.002
360	0.348	0.071
370	0.593	0.270
380	0.748	0.485
390	0.838	0.643
400	0.890	0.747
420	0.937	0.851
440	0.958	0.899
460	0.969	0.926
480	0.978	0.946
500	0.985	0.964
550	0.993	0.982
600	0.995	0.987
650	0.998	0.996
700	0.998	0.996
800	0.998	0.996
1060	0.998	0.996
1500	0.998	0.996
2000	0.973	0.936

屈折率の温度係数 Temperature Coefficients of Refractive Index						
	(dn/dT)rel. ($\times 10^{-6} \text{°C}^{-1}$)			(dn/dT)abs. ($\times 10^{-6} \text{°C}^{-1}$)		
(°C)	1548.1	d	g	1548.1	d	g
-40/-20	1.9	3.2	5.1	-0.5	0.7	2.6
0/+20	3.0	4.5	6.6	1.2	2.7	4.7
+40/+60	3.0	4.7	7.0	1.7	3.2	5.5

788474 K-LaSFn16	nd	1.78830	ν d	47.4	nF-nC	0.01663
	ne	1.79226	ν e	47.2	nF'-nC'	0.01679

屈折率 Refractive Indices		
n1548	1548.1	1.76044
n1309	1308.5	1.76455
nt	1014.0	1.77035
nA'	768.2	1.77769
nr	706.5	1.78049
nC	656.3	1.78330
nC'	643.9	1.78410
nD	589.3	1.78815
nd	587.6	1.78830
ne	546.1	1.79226
nF	486.1	1.79993
nF'	480.0	1.80089
ng	435.8	1.80915
nh	404.7	1.81690
ni	365.0	1.83036

分散式の常数 Constants of Dispersion Formula	
A0	3.1245350
A1	$-1.4985014 \times 10^{-2}$
A2	2.4795878×10^{-2}
A3	9.6271556×10^{-4}
A4	$-6.4587038 \times 10^{-5}$
A5	4.6162437×10^{-6}

dn/dTの分散常数 Constants of Dispersion dn/dT abs.	
D0	2.27×10^{-6}
D1	1.53×10^{-8}
D2	-2.61×10^{-10}
E0	5.42×10^{-7}
E1	5.61×10^{-10}
$\lambda_{TK} (\mu m)$	0.206

部分分散および部分分散比 Partial Dispersions and Relative Partial Dispersions			
nC-nt	nC-nA'	nd-nC	ne-nC
0.01295	0.00561	0.00500	0.00896
$\theta_{C,t}$	$\theta_{C,A'}$	$\theta_{d,C}$	$\theta_{e,C}$
0.779	0.337	0.301	0.539
ng-nd	ng-nF	nh-ng	ni-ng
0.02085	0.00922	0.00775	0.02121
$\theta_{g,d}$	$\theta_{g,F(\Delta)}$	$\theta_{h,g}$	$\theta_{i,g}$
1.254	0.554 (-0.0104)	0.466	1.275
nC'-nt	ne-nC'	nF'-ne	ni-nF'
0.01375	0.00816	0.00863	0.02947
$\theta_{C',t}$	$\theta_{e,C'}$	$\theta_{F',e}$	$\theta_{i,F'}$
0.819	0.486	0.514	1.755

機械的性質 Mechanical Properties	熱的性質 Thermal Properties
ヌープ硬さ Hk Knoop Hardness 710 (7)	転移点 Tg (°C) Transformation Point 693
ビッカース硬さ Hv Vickers Hardness 692	屈伏点 At (°C) Yielding Point 714
摩耗度 Ha Abrasion 70	線膨張係数 $\alpha (\times 10^{-7} \text{°C}^{-1})$ Thermal Expansion
ヤング率 E ($\times 10^8 \text{N} \cdot \text{m}^{-2}$) Young's Modulus 1224	(-30~+70°C) 54 (+100~+300°C) 72
剛性率 G ($\times 10^8 \text{N} \cdot \text{m}^{-2}$) Modulus of Rigidity 473	熱伝導率 $\lambda (\text{W} \cdot \text{m}^{-1} \cdot \text{K}^{-1})$ Thermal Conductivity
ポアソン比 σ Poisson Ratio 0.294	比熱 Cp ($\text{J} \cdot \text{kg}^{-1} \cdot \text{K}^{-1}$) Specific Heat
化学的性質 Chemical Properties	その他 Other Properties
耐水性(粉末法) RW Water Resistance 1	泡 B Bubbles
耐酸性(粉末法) RA Acid Resistance 3	着色度 C Coloration 39/32
耐久性(表面法) DW Chemical Durability 1	比重 S.g Specific Gravity 4.76
備考 Remarks	生産頻度 PF Production frequency

内部透過率 τ Internal Transmittance		
$\lambda(\text{nm})$	10mm	25mm
270		
280		
290		
300		
310		
320	0.050	
330	0.122	
340	0.371	0.084
350	0.600	0.279
360	0.753	0.492
370	0.849	0.664
380	0.907	0.783
390	0.939	0.854
400	0.957	0.896
420	0.971	0.930
440	0.977	0.944
460	0.981	0.954
480	0.982	0.957
500	0.985	0.964
550	0.988	0.971
600	0.988	0.971
650	0.992	0.982
700	0.994	0.985
800	0.997	0.992
1060	0.998	0.996
1500	0.998	0.996
2000	0.968	0.923

屈折率の温度係数 Temperature Coefficients of Refractive Index						
	(dn/dT)rel. ($\times 10^{-6} \text{°C}^{-1}$)			(dn/dT)abs. ($\times 10^{-6} \text{°C}^{-1}$)		
(°C)	1548.1	d	g	1548.1	d	g
-40/-20	1.8	2.7	3.8	-0.6	0.2	1.3
0/+20	3.0	4.0	5.3	1.3	2.2	3.4
+40/+60	3.0	4.1	5.4	1.6	2.7	4.0

883408 K-LaSFn17	nd	1.88300	ν d	40.8	nF-nC	0.02164
	ne	1.88813	ν e	40.6	nF'-nC'	0.02189

屈折率 Refractive Indices		
n1548	1548.1	1.84950
n1309	1308.5	1.85389
nt	1014.0	1.86054
nA'	768.2	1.86943
nr	706.5	1.87297
nC	656.3	1.87656
nC'	643.9	1.87758
nD	589.3	1.88281
nd	587.6	1.88300
ne	546.1	1.88813
nF	486.1	1.89820
nF'	480.0	1.89947
ng	435.8	1.91048
nh	404.7	1.92086
ni	365.0	

分散式の常数 Constants of Dispersion Formula	
A0	3.4434117
A1	$-1.5474743 \times 10^{-2}$
A2	3.3695975×10^{-2}
A3	1.2878574×10^{-3}
A4	$-4.5474230 \times 10^{-5}$
A5	3.8679590×10^{-6}

dn/dTの分散常数 Constants of Dispersion dn/dT abs.	
D0	1.16×10^{-6}
D1	1.35×10^{-8}
D2	-2.10×10^{-10}
E0	7.19×10^{-7}
E1	4.10×10^{-10}
$\lambda_{TK} (\mu m)$	0.207

部分分散および部分分散比 Partial Dispersions and Relative Partial Dispersions			
nC-nt	nC-nA'	nd-nC	ne-nC
0.01602	0.00713	0.00644	0.01157
$\theta_{C,t}$	$\theta_{C,A'}$	$\theta_{d,C}$	$\theta_{e,C}$
0.740	0.329	0.298	0.535
ng-nd	ng-nF	nh-ng	ni-ng
0.02748	0.01228	0.01038	
$\theta_{g,d}$	$\theta_{g,F(\Delta)}$	$\theta_{h,g}$	$\theta_{i,g}$
1.270	0.567 (-0.0081)	0.480	
nC'-nt	ne-nC'	nF'-ne	ni-nF'
0.01704	0.01055	0.01134	
$\theta_{C',t}$	$\theta_{e,C'}$	$\theta_{F',e}$	$\theta_{i,F'}$
0.778	0.482	0.518	

機械的性質 Mechanical Properties	熱的性質 Thermal Properties
ヌープ硬さ Hk Knoop Hardness 689 (7)	転移点 Tg (°C) Transformation Point 703
ビッカース硬さ Hv Vickers Hardness 690	屈伏点 At (°C) Yielding Point 733
摩耗度 Ha Abrasion 60	線膨張係数 $\alpha (\times 10^{-7} \text{°C}^{-1})$ Thermal Expansion
ヤング率 E ($\times 10^8 \text{N} \cdot \text{m}^{-2}$) Young's Modulus 1290	(-30~+70°C) 63 (+100~+300°C) 79
剛性率 G ($\times 10^8 \text{N} \cdot \text{m}^{-2}$) Modulus of Rigidity 496	熱伝導率 $\lambda (\text{W} \cdot \text{m}^{-1} \cdot \text{K}^{-1})$ Thermal Conductivity
ポアソン比 σ Poisson Ratio 0.300	比熱 Cp ($\text{J} \cdot \text{kg}^{-1} \cdot \text{K}^{-1}$) Specific Heat
化学的性質 Chemical Properties	その他 Other Properties
耐水性(粉末法) RW Water Resistance 1	泡 B Bubbles
耐酸性(粉末法) RA Acid Resistance 1	着色度 C Coloration (37)/31
耐久性(表面法) DW Chemical Durability 1	比重 S.g Specific Gravity 5.54
備考 Remarks	生産頻度 PF Production frequency C

内部透過率 τ Internal Transmittance		
$\lambda(\text{nm})$	3mm	10mm
270		
280		
290		
300	0.189	
310	0.396	0.045
320	0.650	0.238
330	0.771	0.421
340	0.848	0.578
350	0.901	0.707
360	0.936	0.804
370	0.959	0.871
380	0.974	0.917
390	0.982	0.943
400	0.987	0.958
420	0.992	0.974
440	0.994	0.983
460	0.996	0.987
480	0.997	0.991
500	0.998	0.993
550	0.999	0.996
600	0.999	0.996
650	0.999	0.997
700	0.999	0.998
800	0.999	0.998
1060	0.998	0.995
1500	0.998	0.993
2000	0.991	0.971

屈折率の温度係数 Temperature Coefficients of Refractive Index						
	(dn/dT)rel. ($\times 10^{-6} \text{°C}^{-1}$)			(dn/dT)abs. ($\times 10^{-6} \text{°C}^{-1}$)		
(°C)	1548.1	d	g	1548.1	d	g
-40/-20	1.5	2.9	4.6	-1.0	0.3	2.0
0/+20	2.6	4.0	5.9	0.7	2.1	3.9
+40/+60	2.5	4.1	6.0	1.1	2.6	4.5

850324 K-LaSFn21	nd	1.85000	ν d	32.4	nF-nC	0.02623
	ne	1.85622	ν e	32.2	nF'-nC'	0.02662

屈折率 Refractive Indices		
n1548	1548.1	1.81158
n1309	1308.5	1.81633
nt	1014.0	1.82377
nA'	768.2	1.83414
nr	706.5	1.83818
nC	656.3	1.84235
nC'	643.9	1.84354
nD	589.3	1.84977
nd	587.6	1.85000
ne	546.1	1.85622
nF	486.1	1.86858
nF'	480.0	1.87016
ng	435.8	1.88412
nh	404.7	1.89827
ni	365.0	

分散式の常数 Constants of Dispersion Formula	
A0	3.3040338
A1	$-1.6019748 \times 10^{-2}$
A2	3.7645989×10^{-2}
A3	2.1532464×10^{-3}
A4	$-2.0498123 \times 10^{-4}$
A5	2.7623217×10^{-5}

dn/dTの分散常数 Constants of Dispersion dn/dT abs.	
D0	3.35×10^{-6}
D1	1.38×10^{-8}
D2	-2.07×10^{-11}
E0	8.23×10^{-7}
E1	1.31×10^{-9}
$\lambda_{TK} (\mu m)$	0.268

部分分散および部分分散比 Partial Dispersions and Relative Partial Dispersions			
nC-nt	nC-nA'	nd-nC	ne-nC
0.01858	0.00821	0.00765	0.01387
$\theta_{C,t}$	$\theta_{C,A'}$	$\theta_{d,C}$	$\theta_{e,C}$
0.708	0.313	0.292	0.529
ng-nd	ng-nF	nh-ng	ni-ng
0.03412	0.01554	0.01415	
$\theta_{g,d}$	$\theta_{g,F(\Delta)}$	$\theta_{h,g}$	$\theta_{i,g}$
1.301	0.592 (0.0023)	0.539	
nC'-nt	ne-nC'	nF'-ne	ni-nF'
0.01977	0.01268	0.01394	
$\theta_{C',t}$	$\theta_{e,C'}$	$\theta_{F',e}$	$\theta_{i,F'}$
0.743	0.476	0.524	

機械的性質 Mechanical Properties	熱的性質 Thermal Properties
ヌープ硬さ Hk Knoop Hardness 720 (7)	転移点 Tg (°C) Transformation Point 628
ビッカース硬さ Hv Vickers Hardness 679	屈伏点 At (°C) Yielding Point 668
摩耗度 Ha Abrasion 80	線膨張係数 $\alpha (\times 10^{-7} \text{°C}^{-1})$ Thermal Expansion
ヤング率 E ($\times 10^8 \text{N} \cdot \text{m}^{-2}$) Young's Modulus 1140	(-30~+70°C) 60 (+100~+300°C) 76
剛性率 G ($\times 10^8 \text{N} \cdot \text{m}^{-2}$) Modulus of Rigidity 444	熱伝導率 $\lambda (\text{W} \cdot \text{m}^{-1} \cdot \text{K}^{-1})$ Thermal Conductivity
ポアソン比 σ Poisson Ratio 0.284	比熱 Cp ($\text{J} \cdot \text{kg}^{-1} \cdot \text{K}^{-1}$) Specific Heat
化学的性質 Chemical Properties	その他 Other Properties
耐水性(粉末法) RW Water Resistance 1	泡 B Bubbles
耐酸性(粉末法) RA Acid Resistance 3	着色度 C Coloration (43)/37
耐久性(表面法) DW Chemical Durability 1	比重 S.g Specific Gravity 3.99
備考 Remarks	生産頻度 PF Production frequency

内部透過率 τ Internal Transmittance		
$\lambda(\text{nm})$	3mm	10mm
270		
280		
290		
300		
310		
320		
330		
340		
350	0.065	
360	0.267	0.012
370	0.519	0.113
380	0.703	0.309
390	0.813	0.502
400	0.876	0.645
420	0.937	0.805
440	0.960	0.874
460	0.971	0.908
480	0.979	0.933
500	0.985	0.951
550	0.993	0.977
600	0.996	0.987
650	0.997	0.992
700	0.998	0.994
800	0.998	0.995
1060	0.998	0.995
1500	0.998	0.994
2000	0.991	0.970

屈折率の温度係数 Temperature Coefficients of Refractive Index						
	(dn/dT)rel. ($\times 10^{-6} \text{°C}^{-1}$)			(dn/dT)abs. ($\times 10^{-6} \text{°C}^{-1}$)		
(°C)	1548.1	d	g	1548.1	d	g
-40/-20	3.8	5.4	7.8	1.3	2.8	5.2
0/+20	3.9	5.8	8.6	2.1	3.9	6.6
+40/+60	4.2	6.3	9.4	2.8	4.9	8.0

898340 K-LaSFn22	nd	1.89800	ν d	34.0	nF-nC	0.02640
	ne	1.90425	ν e	33.8	nF'-nC'	0.02678

屈折率 Refractive Indices		
n1548	1548.1	1.85967
n1309	1308.5	1.86431
nt	1014.0	1.87149
nA'	768.2	1.88183
nr	706.5	1.88600
nC	656.3	1.89026
nC'	643.9	1.89147
nD	589.3	1.89777
nd	587.6	1.89800
ne	546.1	1.90425
nF	486.1	1.91666
nF'	480.0	1.91825
ng	435.8	1.93218
nh	404.7	1.94574
ni	365.0	

分散式の常数 Constants of Dispersion Formula	
A0	3.4771030
A1	$-1.4937640 \times 10^{-2}$
A2	4.0192699×10^{-2}
A3	1.8404932×10^{-3}
A4	$-1.0009344 \times 10^{-4}$
A5	1.4346776×10^{-5}

dn/dTの分散常数 Constants of Dispersion dn/dT abs.	
D0	2.02×10^{-6}
D1	1.36×10^{-8}
D2	-2.80×10^{-10}
E0	8.48×10^{-7}
E1	8.18×10^{-10}
$\lambda_{TK} (\mu m)$	0.256

部分分散および部分分散比 Partial Dispersions and Relative Partial Dispersions			
nC-nt	nC-nA'	nd-nC	ne-nC
0.01877	0.00843	0.00774	0.01399
$\theta_{C,t}$	$\theta_{C,A'}$	$\theta_{d,C}$	$\theta_{e,C}$
0.711	0.319	0.293	0.530
ng-nd	ng-nF	nh-ng	ni-ng
0.03418	0.01552	0.01356	
$\theta_{g,d}$	$\theta_{g,F(\Delta)}$	$\theta_{h,g}$	$\theta_{i,g}$
1.295	0.588 (0.0009)	0.514	
nC'-nt	ne-nC'	nF'-ne	ni-nF'
0.01998	0.01278	0.01400	
$\theta_{C',t}$	$\theta_{e,C'}$	$\theta_{F',e}$	$\theta_{i,F'}$
0.746	0.477	0.523	

機械的性質 Mechanical Properties	熱的性質 Thermal Properties
ヌープ硬さ Hk Knoop Hardness 751 (7)	転移点 Tg (°C) Transformation Point 655
ビッカース硬さ Hv Vickers Hardness 764	屈伏点 At (°C) Yielding Point 693
摩耗度 Ha Abrasion 66	線膨張係数 $\alpha (\times 10^{-7} \text{°C}^{-1})$ Thermal Expansion
ヤング率 E ($\times 10^8 \text{N} \cdot \text{m}^{-2}$) Young's Modulus 1253	(-30~+70°C) 57 (+100~+300°C) 79
剛性率 G ($\times 10^8 \text{N} \cdot \text{m}^{-2}$) Modulus of Rigidity 486	熱伝導率 $\lambda (\text{W} \cdot \text{m}^{-1} \cdot \text{K}^{-1})$ Thermal Conductivity
ポアソン比 σ Poisson Ratio 0.290	比熱 Cp ($\text{J} \cdot \text{kg}^{-1} \cdot \text{K}^{-1}$) Specific Heat
化学的性質 Chemical Properties	その他 Other Properties
耐水性(粉末法) RW Water Resistance 1	泡 B Bubbles
耐酸性(粉末法) RA Acid Resistance 1	着色度 C Coloration (41)/36
耐久性(表面法) DW Chemical Durability 1	比重 S.g Specific Gravity 4.92
備考 Remarks	生産頻度 PF Production frequency A

内部透過率 τ Internal Transmittance		
$\lambda(\text{nm})$	3mm	10mm
270		
280		
290		
300		
310		
320		
330		
340		
350	0.157	
360	0.462	0.077
370	0.714	0.326
380	0.843	0.567
390	0.906	0.720
400	0.938	0.808
420	0.967	0.895
440	0.979	0.933
460	0.986	0.955
480	0.990	0.968
500	0.993	0.980
550	0.997	0.990
600	0.997	0.991
650	0.997	0.992
700	0.998	0.994
800	0.998	0.996
1060	0.999	0.999
1500	0.999	0.998
2000	0.993	0.980

屈折率の温度係数 Temperature Coefficients of Refractive Index						
	(dn/dT)rel. ($\times 10^{-6} \text{°C}^{-1}$)			(dn/dT)abs. ($\times 10^{-6} \text{°C}^{-1}$)		
(°C)	1548.1	d	g	1548.1	d	g
-40/-20	1.8	3.5	6.0	-0.7	0.9	3.3
0/+20	3.2	5.1	7.9	1.3	3.2	5.9
+40/+60	3.0	5.1	8.1	1.6	3.6	6.6

911352 K-LaSF _n 23	nd	1.91100	ν d	35.2	nF-nC	0.02587
	ne	1.91713	ν e	35.0	nF'-nC'	0.02622

屈折率 Refractive Indices		
n1548	1548.1	1.87336
n1309	1308.5	1.87789
nt	1014.0	1.88497
nA'	768.2	1.89514
nr	706.5	1.89922
nC	656.3	1.90341
nC'	643.9	1.90460
nD	589.3	1.91077
nd	587.6	1.91100
ne	546.1	1.91713
nF	486.1	1.92928
nF'	480.0	1.93082
ng	435.8	1.94437
nh	404.7	1.95749
ni	365.0	1.98129

分散式の常数 Constants of Dispersion Formula	
A0	3.5274271
A1	$-1.4636660 \times 10^{-2}$
A2	4.0395739×10^{-2}
A3	1.5517485×10^{-3}
A4	$-4.6386509 \times 10^{-5}$
A5	9.1517458×10^{-6}

dn/dTの分散常数 Constants of Dispersion dn/dT abs.	
D0	1.83×10^{-8}
D1	1.49×10^{-8}
D2	-2.69×10^{-10}
E0	8.28×10^{-7}
E1	7.87×10^{-10}
$\lambda_{TK} (\mu m)$	0.248

部分分散および部分分散比 Partial Dispersions and Relative Partial Dispersions			
nC-nt	nC-nA'	nd-nC	ne-nC
0.01844	0.00827	0.00759	0.01372
$\theta_{C,t}$	$\theta_{C,A'}$	$\theta_{d,C}$	$\theta_{e,C}$
0.713	0.320	0.293	0.530
ng-nd	ng-nF	nh-ng	ni-ng
0.03337	0.01509	0.01312	0.03692
$\theta_{g,d}$	$\theta_{g,F(\Delta)}$	$\theta_{h,g}$	$\theta_{i,g}$
1.290	0.583 (-0.0019)	0.507	1.427
nC'-nt	ne-nC'	nF'-ne	ni-nF'
0.01963	0.01253	0.01369	0.05047
$\theta_{'C',t}$	$\theta_{'e,C'}$	$\theta_{'F',e}$	$\theta_{'i,F'}$
0.749	0.478	0.522	1.925

機械的性質 Mechanical Properties	熱的性質 Thermal Properties
ヌープ硬さ Hk Knoop Hardness 724 (7)	転移点 Tg (°C) Transformation Point 714
ビッカース硬さ Hv Vickers Hardness 721	屈伏点 At (°C) Yielding Point 750
摩耗度 Ha Abrasion 60	線膨張係数 $\alpha (\times 10^{-7} \text{°C}^{-1})$ Thermal Expansion
ヤング率 E ($\times 10^8 \text{N} \cdot \text{m}^{-2}$) Young's Modulus 1240	(-30~+70°C) 69 (+100~+300°C) 88
剛性率 G ($\times 10^8 \text{N} \cdot \text{m}^{-2}$) Modulus of Rigidity 479	熱伝導率 $\lambda (\text{W} \cdot \text{m}^{-1} \cdot \text{K}^{-1})$ Thermal Conductivity
ポアソン比 σ Poisson Ratio 0.295	比熱 Cp ($\text{J} \cdot \text{kg}^{-1} \cdot \text{K}^{-1}$) Specific Heat
化学的性質 Chemical Properties	その他 Other Properties
耐水性(粉末法) RW Water Resistance 1	泡 B Bubbles
耐酸性(粉末法) RA Acid Resistance 1	着色度 C Coloration (41)/36
耐久性(表面法) DW Chemical Durability 1	比重 S.g Specific Gravity 4.90
備考 Remarks	生産頻度 PF Production frequency

内部透過率 τ Internal Transmittance		
$\lambda(\text{nm})$	3mm	10mm
270		
280		
290		
300		
310		
320		
330		
340	0.111	
350	0.318	0.022
360	0.612	0.195
370	0.790	0.457
380	0.877	0.647
390	0.921	0.762
400	0.947	0.835
420	0.971	0.908
440	0.981	0.941
460	0.988	0.961
480	0.992	0.974
500	0.995	0.984
550	0.998	0.994
600	0.998	0.995
650	0.998	0.995
700	0.998	0.995
800	0.999	0.997
1060	0.999	0.999
1500	0.999	0.999
2000	0.995	0.985

屈折率の温度係数 Temperature Coefficients of Refractive Index						
	(dn/dT)rel. ($\times 10^{-6} \text{°C}^{-1}$)			(dn/dT)abs. ($\times 10^{-6} \text{°C}^{-1}$)		
(°C)	1548.1	d	g	1548.1	d	g
-40/-20	0.4	2.0	4.4	-2.1	-0.6	1.7
0/+20	1.8	3.7	6.2	0.0	1.7	4.3
+40/+60	1.8	3.7	6.5	0.4	2.3	5.0

717295 K-SFLD1	nd	1.71736	ν d	29.5	nF-nC	0.02432
	ne	1.72310	ν e	29.3	nF'-nC'	0.02470

屈折率 Refractive Indices		
n1548	1548.1	1.68292
n1309	1308.5	1.68701
nt	1014.0	1.69341
nA'	768.2	1.70270
nr	706.5	1.70645
nC	656.3	1.71031
nC'	643.9	1.71141
nD	589.3	1.71715
nd	587.6	1.71736
ne	546.1	1.72310
nF	486.1	1.73463
nF'	480.0	1.73611
ng	435.8	1.74928
nh	404.7	1.76237
ni	365.0	

分散式の常数 Constants of Dispersion Formula	
A0	2.8465679
A1	$-1.1795790 \times 10^{-2}$
A2	3.2766631×10^{-2}
A3	1.4514223×10^{-3}
A4	$-4.8225155 \times 10^{-5}$
A5	1.2981324×10^{-5}

dn/dTの分散常数 Constants of Dispersion dn/dT abs.	
D0	-2.00×10^{-6}
D1	1.26×10^{-8}
D2	-4.49×10^{-10}
E0	9.35×10^{-7}
E1	1.09×10^{-9}
$\lambda_{TK} (\mu m)$	0.270

部分分散および部分分散比 Partial Dispersions and Relative Partial Dispersions			
nC-nt	nC-nA'	nd-nC	ne-nC
0.01690	0.00761	0.00705	0.01279
$\theta_{C,t}$	$\theta_{C,A'}$	$\theta_{d,C}$	$\theta_{e,C}$
0.695	0.313	0.290	0.526
ng-nd	ng-nF	nh-ng	ni-ng
0.03192	0.01465	0.01309	
$\theta_{g,d}$	$\theta_{g,F(\Delta)}$	$\theta_{h,g}$	$\theta_{i,g}$
1.313	0.602 (0.0075)	0.538	
nC'-nt	ne-nC'	nF'-ne	ni-nF'
0.01800	0.01169	0.01301	
$\theta_{C',t}$	$\theta_{e,C'}$	$\theta_{F',e}$	$\theta_{i,F'}$
0.729	0.473	0.527	

機械的性質 Mechanical Properties	熱的性質 Thermal Properties
ヌープ硬さ Hk Knoop Hardness 597 (6)	転移点 Tg (°C) Transformation Point 618
ビッカース硬さ Hv Vickers Hardness 636	屈伏点 At (°C) Yielding Point 653
摩耗度 Ha Abrasion 177	線膨張係数 $\alpha (\times 10^{-7} \text{°C}^{-1})$ Thermal Expansion
ヤング率 E ($\times 10^8 \text{N} \cdot \text{m}^{-2}$) Young's Modulus 881	(-30~+70°C) 82 (+100~+300°C) 97
剛性率 G ($\times 10^8 \text{N} \cdot \text{m}^{-2}$) Modulus of Rigidity 360	熱伝導率 $\lambda (\text{W} \cdot \text{m}^{-1} \cdot \text{K}^{-1})$ Thermal Conductivity
ポアソン比 σ Poisson Ratio 0.225	比熱 Cp ($\text{J} \cdot \text{kg}^{-1} \cdot \text{K}^{-1}$) Specific Heat
化学的性質 Chemical Properties	その他 Other Properties
耐水性(粉末法) RW Water Resistance 1	泡 B Bubbles
耐酸性(粉末法) RA Acid Resistance 1	着色度 C Coloration 42/36
耐久性(表面法) DW Chemical Durability 1	比重 S.g Specific Gravity 3.03
備考 Remarks	生産頻度 PF Production frequency

内部透過率 τ Internal Transmittance		
$\lambda (\text{nm})$	3mm	10mm
270		
280		
290		
300		
310		
320		
330		
340		
350	0.117	
360	0.325	0.024
370	0.649	0.238
380	0.835	0.549
390	0.915	0.745
400	0.950	0.844
420	0.978	0.929
440	0.987	0.959
460	0.991	0.972
480	0.994	0.980
500	0.995	0.985
550	0.998	0.994
600	0.998	0.995
650	0.998	0.995
700	0.999	0.996
800	0.999	0.998
1060	0.999	0.999
1500	0.999	0.997
2000	0.993	0.977

屈折率の温度係数 Temperature Coefficients of Refractive Index						
	(dn/dT)rel. ($\times 10^{-6} \text{°C}^{-1}$)			(dn/dT)abs. ($\times 10^{-6} \text{°C}^{-1}$)		
(°C)	1548.1	d	g	1548.1	d	g
-40/-20	-1.2	0.3	2.7	-3.4	-2.0	0.3
0/+20	0.6	2.3	5.0	-1.1	0.5	3.2
+40/+60	0.2	2.0	4.9	-1.1	0.7	3.6

755275 K-SFLD4	nd	1.75520	ν d	27.5	nF-nC	0.02745
	ne	1.76167	ν e	27.3	nF'-nC'	0.02792

屈折率 Refractive Indices		
n1548	1548.1	1.71749
n1309	1308.5	1.72176
nt	1014.0	1.72860
nA'	768.2	1.73880
nr	706.5	1.74298
nC	656.3	1.74730
nC'	643.9	1.74853
nD	589.3	1.75496
nd	587.6	1.75520
ne	546.1	1.76167
nF	486.1	1.77475
nF'	480.0	1.77645
ng	435.8	1.79156
nh	404.7	1.80668
ni	365.0	

分散式の常数 Constants of Dispersion Formula	
A0	2.9621759
A1	$-1.1836005 \times 10^{-2}$
A2	3.7648353×10^{-2}
A3	1.5341601×10^{-3}
A4	$-1.0776303 \times 10^{-5}$
A5	1.3789240×10^{-5}

dn/dTの分散常数 Constants of Dispersion dn/dT abs.	
D0	-2.91×10^{-6}
D1	1.97×10^{-8}
D2	-3.23×10^{-10}
E0	8.95×10^{-7}
E1	9.72×10^{-10}
$\lambda_{TK} (\mu m)$	0.291

部分分散および部分分散比 Partial Dispersions and Relative Partial Dispersions			
nC-nt	nC-nA'	nd-nC	ne-nC
0.01870	0.00850	0.00790	0.01437
$\theta_{C,t}$	$\theta_{C,A'}$	$\theta_{d,C}$	$\theta_{e,C}$
0.681	0.310	0.288	0.523
ng-nd	ng-nF	nh-ng	ni-ng
0.03636	0.01681	0.01512	
$\theta_{g,d}$	$\theta_{g,F(\Delta)}$	$\theta_{h,g}$	$\theta_{i,g}$
1.325	0.612 (0.0145)	0.551	
nC'-nt	ne-nC'	nF'-ne	ni-nF'
0.01993	0.01314	0.01478	
$\theta'_{C',t}$	$\theta'_{e,C'}$	$\theta'_{F',e}$	$\theta'_{i,F'}$
0.714	0.471	0.529	

機械的性質 Mechanical Properties	熱的性質 Thermal Properties
ヌープ硬さ Hk Knoop Hardness 594 (6)	転移点 Tg (°C) Transformation Point 613
ビッカース硬さ Hv Vickers Hardness 606	屈伏点 At (°C) Yielding Point 653
摩耗度 Ha Abrasion 188	線膨張係数 $\alpha (\times 10^{-7} \text{°C}^{-1})$ Thermal Expansion
ヤング率 E ($\times 10^8 \text{N} \cdot \text{m}^{-2}$) Young's Modulus 883	(-30~+70°C) 86 (+100~+300°C) 91
剛性率 G ($\times 10^8 \text{N} \cdot \text{m}^{-2}$) Modulus of Rigidity 356	熱伝導率 $\lambda (\text{W} \cdot \text{m}^{-1} \cdot \text{K}^{-1})$ Thermal Conductivity
ポアソン比 σ Poisson Ratio 0.238	比熱 Cp ($\text{J} \cdot \text{kg}^{-1} \cdot \text{K}^{-1}$) Specific Heat
化学的性質 Chemical Properties	その他 Other Properties
耐水性(粉末法) RW Water Resistance 1	泡 B Bubbles
耐酸性(粉末法) RA Acid Resistance 1	着色度 C Coloration 44/37
耐久性(表面法) DW Chemical Durability 1	比重 S.g Specific Gravity 3.19
備考 Remarks	生産頻度 PF Production frequency

内部透過率 τ Internal Transmittance		
$\lambda(\text{nm})$	3mm	10mm
270		
280		
290		
300		
310		
320		
330		
340		
350		
360	0.153	
370	0.453	0.072
380	0.709	0.319
390	0.849	0.580
400	0.917	0.751
420	0.969	0.903
440	0.984	0.950
460	0.990	0.968
480	0.993	0.978
500	0.995	0.984
550	0.998	0.993
600	0.998	0.994
650	0.998	0.994
700	0.998	0.995
800	0.999	0.998
1060	0.999	0.999
1500	0.999	0.998
2000	0.996	0.987

屈折率の温度係数 Temperature Coefficients of Refractive Index						
	(dn/dT)rel. ($\times 10^{-6} \text{°C}^{-1}$)			(dn/dT)abs. ($\times 10^{-6} \text{°C}^{-1}$)		
(°C)	1548.1	d	g	1548.1	d	g
-40/-20	-1.7	-0.1	2.6	-3.9	-2.5	0.2
0/+20	0.0	1.7	4.8	-1.7	0.0	3.0
+40/+60	0.1	2.0	5.4	-1.2	0.6	4.0

805254 K-SFLD6	nd	1.80518	ν d	25.4	nF-nC	0.03171
	ne	1.81266	ν e	25.2	nF'-nC'	0.03225

屈折率 Refractive Indices		
n1548	1548.1	1.76282
n1309	1308.5	1.76735
nt	1014.0	1.77489
nA'	768.2	1.78642
nr	706.5	1.79117
nC	656.3	1.79610
nC'	643.9	1.79751
nD	589.3	1.80491
nd	587.6	1.80518
ne	546.1	1.81266
nF	486.1	1.82781
nF'	480.0	1.82976
ng	435.8	1.84730
nh	404.7	1.86491
ni	365.0	

分散式の常数 Constants of Dispersion Formula	
A0	3.1176009
A1	$-1.2108189 \times 10^{-2}$
A2	4.4689743×10^{-2}
A3	1.6574765×10^{-3}
A4	4.1984442×10^{-5}
A5	1.2913500×10^{-5}

dn/dTの分散常数 Constants of Dispersion dn/dT abs.	
D0	-6.59×10^{-6}
D1	1.77×10^{-8}
D2	-2.13×10^{-10}
E0	1.11×10^{-6}
E1	8.72×10^{-10}
$\lambda_{TK} (\mu m)$	0.277

部分分散および部分分散比 Partial Dispersions and Relative Partial Dispersions			
nC-nt	nC-nA'	nd-nC	ne-nC
0.02121	0.00968	0.00908	0.01656
$\theta_{C,t}$	$\theta_{C,A'}$	$\theta_{d,C}$	$\theta_{e,C}$
0.669	0.305	0.286	0.522
ng-nd	ng-nF	nh-ng	ni-ng
0.04212	0.01949	0.01761	
$\theta_{g,d}$	$\theta_{g,F(\Delta)}$	$\theta_{h,g}$	$\theta_{i,g}$
1.328	0.615 (0.0136)	0.555	
nC'-nt	ne-nC'	nF'-ne	ni-nF'
0.02262	0.01515	0.01710	
$\theta_{C',t}$	$\theta_{e,C'}$	$\theta_{F',e}$	$\theta_{i,F'}$
0.701	0.470	0.530	

機械的性質 Mechanical Properties	熱的性質 Thermal Properties
ヌープ硬さ Hk Knoop Hardness 479 (5)	転移点 Tg (°C) Transformation Point 609
ビッカース硬さ Hv Vickers Hardness 505	屈伏点 At (°C) Yielding Point 633
摩耗度 Ha Abrasion 175	線膨張係数 $\alpha (\times 10^{-7} \text{°C}^{-1})$ Thermal Expansion
ヤング率 E ($\times 10^8 \text{N} \cdot \text{m}^{-2}$) Young's Modulus 943	(-30~+70°C) 93 (+100~+300°C) 107
剛性率 G ($\times 10^8 \text{N} \cdot \text{m}^{-2}$) Modulus of Rigidity 373	熱伝導率 $\lambda (\text{W} \cdot \text{m}^{-1} \cdot \text{K}^{-1})$ Thermal Conductivity
ポアソン比 σ Poisson Ratio 0.263	比熱 Cp ($\text{J} \cdot \text{kg}^{-1} \cdot \text{K}^{-1}$) Specific Heat
化学的性質 Chemical Properties	その他 Other Properties
耐水性(粉末法) RW Water Resistance 1	泡 B Bubbles
耐酸性(粉末法) RA Acid Resistance 1	着色度 C Coloration 45/37
耐久性(表面法) DW Chemical Durability 1	比重 S.g Specific Gravity 3.40
備考 Remarks	生産頻度 PF Production frequency

内部透過率 τ Internal Transmittance		
$\lambda (\text{nm})$	10mm	25mm
270		
280		
290		
300		
310		
320		
330		
340		
350		
360		
370	0.138	
380	0.482	0.161
390	0.694	0.402
400	0.795	0.564
420	0.884	0.736
440	0.923	0.820
460	0.943	0.864
480	0.957	0.896
500	0.965	0.916
550	0.982	0.957
600	0.985	0.964
650	0.988	0.971
700	0.991	0.978
800	0.995	0.990
1060	0.995	0.990
1500	0.994	0.988
2000	0.974	0.937

屈折率の温度係数 Temperature Coefficients of Refractive Index						
	(dn/dT)rel. ($\times 10^{-6} \text{°C}^{-1}$)			(dn/dT)abs. ($\times 10^{-6} \text{°C}^{-1}$)		
(°C)	1548.1	d	g	1548.1	d	g
-40/-20	-3.3	-1.4	1.9	-5.7	-3.8	-0.6
0/+20	-2.2	0.0	3.6	-3.9	-1.8	1.7
+40/+60	-2.0	0.3	4.2	-3.3	-1.1	2.7

689311 K-SFLD8	nd	1.68893	ν d	31.1	nF-nC	0.02214
	ne	1.69416	ν e	30.9	nF'-nC'	0.02248

屈折率 Refractive Indices		
n1548	1548.1	1.65698
n1309	1308.5	1.66090
nt	1014.0	1.66695
nA'	768.2	1.67552
nr	706.5	1.67896
nC	656.3	1.68249
nC'	643.9	1.68350
nD	589.3	1.68874
nd	587.6	1.68893
ne	546.1	1.69416
nF	486.1	1.70463
nF'	480.0	1.70598
ng	435.8	1.71788
nh	404.7	1.72964
ni	365.0	

分散式の常数 Constants of Dispersion Formula	
A0	2.7609221
A1	$-1.1601354 \times 10^{-2}$
A2	2.9309701×10^{-2}
A3	1.2957192×10^{-3}
A4	$-3.6971081 \times 10^{-5}$
A5	9.8723481×10^{-6}

dn/dTの分散常数 Constants of Dispersion dn/dT abs.	
D0	-9.37×10^{-7}
D1	1.62×10^{-8}
D2	-1.83×10^{-10}
E0	7.05×10^{-7}
E1	1.05×10^{-9}
$\lambda_{TK} (\mu m)$	0.299

部分分散および部分分散比 Partial Dispersions and Relative Partial Dispersions			
nC-nt	nC-nA'	nd-nC	ne-nC
0.01554	0.00697	0.00644	0.01167
$\theta_{C,t}$	$\theta_{C,A'}$	$\theta_{d,C}$	$\theta_{e,C}$
0.702	0.315	0.291	0.527
ng-nd	ng-nF	nh-ng	ni-ng
0.02895	0.01325	0.01176	
$\theta_{g,d}$	$\theta_{g,F(\Delta)}$	$\theta_{h,g}$	$\theta_{i,g}$
1.308	0.598 (0.0062)	0.531	
nC'-nt	ne-nC'	nF'-ne	ni-nF'
0.01655	0.01066	0.01182	
$\theta'_{C',t}$	$\theta'_{e,C'}$	$\theta'_{F',e}$	$\theta'_{i,F'}$
0.736	0.474	0.526	

機械的性質 Mechanical Properties	熱的性質 Thermal Properties
ヌープ硬さ Hk Knoop Hardness 529 (5)	転移点 Tg (°C) Transformation Point 618
ビッカース硬さ Hv Vickers Hardness 599	屈伏点 At (°C) Yielding Point 653
摩耗度 Ha Abrasion 158	線膨張係数 $\alpha (\times 10^{-7} \text{°C}^{-1})$ Thermal Expansion
ヤング率 E ($\times 10^8 \text{N} \cdot \text{m}^{-2}$) Young's Modulus 853	(-30~+70°C) 80 (+100~+300°C) 97
剛性率 G ($\times 10^8 \text{N} \cdot \text{m}^{-2}$) Modulus of Rigidity 349	熱伝導率 $\lambda (\text{W} \cdot \text{m}^{-1} \cdot \text{K}^{-1})$ Thermal Conductivity
ポアソン比 σ Poisson Ratio 0.222	比熱 Cp ($\text{J} \cdot \text{kg}^{-1} \cdot \text{K}^{-1}$) Specific Heat
化学的性質 Chemical Properties	その他 Other Properties
耐水性(粉末法) RW Water Resistance 1	泡 B Bubbles
耐酸性(粉末法) RA Acid Resistance 1	着色度 C Coloration 40/36
耐久性(表面法) DW Chemical Durability 1	比重 S.g Specific Gravity 2.94
備考 Remarks	生産頻度 PF Production frequency

内部透過率 τ Internal Transmittance		
$\lambda(\text{nm})$	10mm	25mm
270		
280		
290		
300		
310		
320		
330		
340		
350		
360	0.010	
370	0.216	0.021
380	0.566	0.241
390	0.774	0.528
400	0.869	0.704
420	0.934	0.844
440	0.955	0.891
460	0.961	0.906
480	0.968	0.923
500	0.974	0.937
550	0.983	0.959
600	0.983	0.959
650	0.983	0.959
700	0.984	0.961
800	0.991	0.978
1060	0.993	0.983
1500	0.991	0.978
2000	0.975	0.938

屈折率の温度係数 Temperature Coefficients of Refractive Index						
	(dn/dT)rel. ($\times 10^{-6} \text{°C}^{-1}$)			(dn/dT)abs. ($\times 10^{-6} \text{°C}^{-1}$)		
(°C)	1548.1	d	g	1548.1	d	g
-40/-20	0.3	1.4	3.5	-1.9	-0.9	1.2
0/+20	1.1	2.4	4.9	-0.5	0.7	3.1
+40/+60	1.2	2.7	5.4	-0.1	1.4	4.1

689312 K-SFLD8W	nd	1.68910	ν d	31.2	nF-nC	0.02211
	ne	1.69432	ν e	30.9	nF'-nC'	0.02245

屈折率 Refractive Indices		
n1548	1548.1	1.65716
n1309	1308.5	1.66109
nt	1014.0	1.66713
nA'	768.2	1.67570
nr	706.5	1.67914
nC	656.3	1.68267
nC'	643.9	1.68367
nD	589.3	1.68891
nd	587.6	1.68910
ne	546.1	1.69432
nF	486.1	1.70478
nF'	480.0	1.70612
ng	435.8	1.71801
nh	404.7	1.72976
ni	365.0	

分散式の常数 Constants of Dispersion Formula	
A0	2.7616037
A1	$-1.1625188 \times 10^{-2}$
A2	2.9251663×10^{-2}
A3	1.3183689×10^{-3}
A4	$-4.4020904 \times 10^{-5}$
A5	1.0486390×10^{-5}

dn/dTの分散常数 Constants of Dispersion dn/dT abs.	
D0	-1.03×10^{-6}
D1	9.91×10^{-9}
D2	-1.57×10^{-10}
E0	8.38×10^{-7}
E1	2.42×10^{-9}
$\lambda_{TK} (\mu m)$	0.279

部分分散および部分分散比 Partial Dispersions and Relative Partial Dispersions			
nC-nt	nC-nA'	nd-nC	ne-nC
0.01554	0.00697	0.00643	0.01165
$\theta_{C,t}$	$\theta_{C,A'}$	$\theta_{d,C}$	$\theta_{e,C}$
0.703	0.315	0.291	0.527
ng-nd	ng-nF	nh-ng	ni-ng
0.02891	0.01323	0.01175	
$\theta_{g,d}$	$\theta_{g,F(\Delta)}$	$\theta_{h,g}$	$\theta_{i,g}$
1.308	0.598 (0.0063)	0.531	
nC'-nt	ne-nC'	nF'-ne	ni-nF'
0.01654	0.01065	0.01180	
$\theta_{C',t}$	$\theta_{e,C'}$	$\theta_{F',e}$	$\theta_{i,F'}$
0.737	0.474	0.526	

機械的性質 Mechanical Properties	熱的性質 Thermal Properties
ヌープ硬さ Hk Knoop Hardness 537 (5)	転移点 Tg (°C) Transformation Point 611
ビッカース硬さ Hv Vickers Hardness 519	屈伏点 At (°C) Yielding Point 655
摩耗度 Ha Abrasion 140	線膨張係数 $\alpha (\times 10^{-7} \text{°C}^{-1})$ Thermal Expansion 78
ヤング率 E ($\times 10^8 \text{N} \cdot \text{m}^{-2}$) Young's Modulus 885	(-30~+70°C) 78 (+100~+300°C) 93
剛性率 G ($\times 10^8 \text{N} \cdot \text{m}^{-2}$) Modulus of Rigidity 355	熱伝導率 $\lambda (\text{W} \cdot \text{m}^{-1} \cdot \text{K}^{-1})$ Thermal Conductivity
ポアソン比 σ Poisson Ratio 0.247	比熱 Cp ($\text{J} \cdot \text{kg}^{-1} \cdot \text{K}^{-1}$) Specific Heat
化学的性質 Chemical Properties	その他 Other Properties
耐水性(粉末法) RW Water Resistance 1	泡 B Bubbles
耐酸性(粉末法) RA Acid Resistance 1	着色度 C Coloration 40/36
耐久性(表面法) DW Chemical Durability 1	比重 S.g Specific Gravity 2.94
備考 Remarks	生産頻度 PF Production frequency

内部透過率 τ Internal Transmittance		
$\lambda(\text{nm})$	3mm	10mm
270		
280		
290		
300		
310		
320		
330		
340		
350	0.082	
360	0.371	0.036
370	0.722	0.337
380	0.886	0.669
390	0.948	0.838
400	0.973	0.914
420	0.989	0.966
440	0.994	0.982
460	0.996	0.987
480	0.997	0.991
500	0.997	0.992
550	0.999	0.996
600	0.999	0.997
650	0.998	0.997
700	0.999	0.997
800	0.999	0.998
1060	0.999	0.997
1500	0.998	0.995
2000	0.993	0.979

屈折率の温度係数 Temperature Coefficients of Refractive Index						
	(dn/dT)rel. ($\times 10^{-6} \text{°C}^{-1}$)			(dn/dT)abs. ($\times 10^{-6} \text{°C}^{-1}$)		
(°C)	1548.1	d	g	1548.1	d	g
-40/-20	0.7	1.8	3.6	-1.6	-0.5	1.2
0/+20	1.1	2.6	5.0	-0.5	0.9	3.3
+40/+60	1.0	2.8	5.8	-0.2	1.5	4.5

785259 K-SFLD11	nd	1.78472	ν d	25.9	nF-nC	0.03030
	ne	1.79187	ν e	25.7	nF'-nC'	0.03081

屈折率 Refractive Indices		
n1548	1548.1	1.74389
n1309	1308.5	1.74835
nt	1014.0	1.75569
nA'	768.2	1.76677
nr	706.5	1.77131
nC	656.3	1.77604
nC'	643.9	1.77740
nD	589.3	1.78447
nd	587.6	1.78472
ne	546.1	1.79187
nF	486.1	1.80634
nF'	480.0	1.80821
ng	435.8	1.82494
nh	404.7	1.84179
ni	365.0	

分散式の常数 Constants of Dispersion Formula	
A0	3.0529130
A1	$-1.2276955 \times 10^{-2}$
A2	4.1487837×10^{-2}
A3	1.9043764×10^{-3}
A4	$-3.1653157 \times 10^{-5}$
A5	1.7320425×10^{-5}

dn/dTの分散常数 Constants of Dispersion dn/dT abs.	
D0	-5.51×10^{-6}
D1	1.82×10^{-8}
D2	-3.64×10^{-10}
E0	1.08×10^{-6}
E1	1.52×10^{-9}
$\lambda_{TK} (\mu m)$	0.280

部分分散および部分分散比 Partial Dispersions and Relative Partial Dispersions			
nC-nt	nC-nA'	nd-nC	ne-nC
0.02035	0.00927	0.00868	0.01583
$\theta_{C,t}$	$\theta_{C,A'}$	$\theta_{d,C}$	$\theta_{e,C}$
0.672	0.306	0.286	0.522
ng-nd	ng-nF	nh-ng	ni-ng
0.04022	0.01860	0.01685	
$\theta_{g,d}$	$\theta_{g,F(\Delta)}$	$\theta_{h,g}$	$\theta_{i,g}$
1.327	0.614 (0.0134)	0.556	
nC'-nt	ne-nC'	nF'-ne	ni-nF'
0.02171	0.01447	0.01634	
$\theta_{C',t}$	$\theta_{e,C'}$	$\theta_{F',e}$	$\theta_{i,F'}$
0.705	0.470	0.530	

機械的性質 Mechanical Properties	熱的性質 Thermal Properties
ヌープ硬さ Hk Knoop Hardness 522 (5)	転移点 Tg (°C) Transformation Point 609
ビッカース硬さ Hv Vickers Hardness 541	屈伏点 At (°C) Yielding Point 640
摩耗度 Ha Abrasion 170	線膨張係数 $\alpha (\times 10^{-7} \text{°C}^{-1})$ Thermal Expansion
ヤング率 E ($\times 10^8 \text{N} \cdot \text{m}^{-2}$) Young's Modulus 929	(-30~+70°C) 93 (+100~+300°C) 105
剛性率 G ($\times 10^8 \text{N} \cdot \text{m}^{-2}$) Modulus of Rigidity 368	熱伝導率 $\lambda (\text{W} \cdot \text{m}^{-1} \cdot \text{K}^{-1})$ Thermal Conductivity
ポアソン比 σ Poisson Ratio 0.262	比熱 Cp ($\text{J} \cdot \text{kg}^{-1} \cdot \text{K}^{-1}$) Specific Heat
化学的性質 Chemical Properties	その他 Other Properties
耐水性(粉末法) RW Water Resistance 1	泡 B Bubbles
耐酸性(粉末法) RA Acid Resistance 1	着色度 C Coloration 44/37
耐久性(表面法) DW Chemical Durability 1	比重 S.g Specific Gravity 3.30
備考 Remarks	生産頻度 PF Production frequency

内部透過率 τ Internal Transmittance		
$\lambda (\text{nm})$	10mm	25mm
270		
280		
290		
300		
310		
320		
330		
340		
350		
360		
370	0.107	
380	0.470	0.151
390	0.714	0.430
400	0.822	0.613
420	0.901	0.771
440	0.932	0.838
460	0.947	0.874
480	0.957	0.896
500	0.967	0.920
550	0.982	0.957
600	0.985	0.964
650	0.985	0.964
700	0.988	0.971
800	0.997	0.992
1060	0.997	0.992
1500	0.988	0.971
2000	0.968	0.923

屈折率の温度係数 Temperature Coefficients of Refractive Index						
	(dn/dT)rel. ($\times 10^{-6} \text{°C}^{-1}$)			(dn/dT)abs. ($\times 10^{-6} \text{°C}^{-1}$)		
(°C)	1548.1	d	g	1548.1	d	g
-40/-20	-3.3	-1.6	1.4	-5.7	-4.0	-1.1
0/+20	-1.5	0.5	4.0	-3.2	-1.3	2.2
+40/+60	-1.5	0.8	4.7	-2.9	-0.6	3.3

762265 K-SFLD14	nd	1.76182	ν d	26.5	nF-nC	0.02873
	ne	1.76859	ν e	26.3	nF'-nC'	0.02923

屈折率 Refractive Indices		
n1548	1548.1	
n1309	1308.5	
nt	1014.0	1.73410
nA'	768.2	1.74472
nr	706.5	1.74907
nC	656.3	1.75357
nC'	643.9	1.75485
nD	589.3	1.76157
nd	587.6	1.76182
ne	546.1	1.76859
nF	486.1	1.78230
nF'	480.0	1.78408
ng	435.8	1.79995
nh	404.7	1.81585
ni	365.0	

分散式の常数 Constants of Dispersion Formula	
A0	2.9787433
A1	$-1.1798697 \times 10^{-2}$
A2	4.0432992×10^{-2}
A3	1.1404668×10^{-3}
A4	8.4929619×10^{-5}
A5	8.4096470×10^{-6}

dn/dTの分散常数 Constants of Dispersion dn/dT abs.	
D0	-4.13×10^{-6}
D1	1.55×10^{-8}
D2	-2.99×10^{-10}
E0	9.65×10^{-7}
E1	1.53×10^{-9}
$\lambda_{TK} (\mu m)$	0.290

部分分散および部分分散比 Partial Dispersions and Relative Partial Dispersions			
nC-nt	nC-nA'	nd-nC	ne-nC
0.01947	0.00885	0.00825	0.01502
θ C,t	θ C,A'	θ d,C	θ e,C
0.678	0.308	0.287	0.523
ng-nd	ng-nF	nh-ng	ni-ng
0.03813	0.01765	0.01590	
θ g,d	θ g,F(Δ)	θ h,g	θ i,g
1.327	0.614 (0.0144)	0.553	
nC'-nt	ne-nC'	nF'-ne	ni-nF'
0.02075	0.01374	0.01549	
θ 'C',t	θ 'e,C'	θ 'F',e	θ 'i,F'
0.710	0.470	0.530	

機械的性質 Mechanical Properties	熱的性質 Thermal Properties
ヌープ硬さ Hk Knoop Hardness 542 (5)	転移点 Tg (°C) Transformation Point 602
ビッカース硬さ Hv Vickers Hardness 648	屈伏点 At (°C) Yielding Point 639
摩耗度 Ha Abrasion 195	線膨張係数 α ($\times 10^{-7} \text{°C}^{-1}$) Thermal Expansion 85
ヤング率 E ($\times 10^8 \text{N} \cdot \text{m}^{-2}$) Young's Modulus 881	(-30~+70°C) 85 (+100~+300°C) 102
剛性率 G ($\times 10^8 \text{N} \cdot \text{m}^{-2}$) Modulus of Rigidity 356	熱伝導率 λ ($\text{W} \cdot \text{m}^{-1} \cdot \text{K}^{-1}$) Thermal Conductivity
ポアソン比 σ Poisson Ratio 0.236	比熱 Cp ($\text{J} \cdot \text{kg}^{-1} \cdot \text{K}^{-1}$) Specific Heat
化学的性質 Chemical Properties	その他 Other Properties
耐水性(粉末法) RW Water Resistance 1	泡 B Bubbles
耐酸性(粉末法) RA Acid Resistance 1	着色度 C Coloration 43/37
耐久性(表面法) DW Chemical Durability 1	比重 S.g Specific Gravity 3.15
備考 Remarks	生産頻度 PF Production frequency

内部透過率 τ Internal Transmittance		
λ (nm)	10mm	25mm
270		
280		
290		
300		
310		
320		
330		
340		
350		
360		
370	0.168	0.011
380	0.521	0.196
390	0.744	0.478
400	0.845	0.657
420	0.920	0.812
440	0.944	0.867
460	0.957	0.896
480	0.968	0.922
500	0.975	0.940
550	0.988	0.972
600	0.990	0.975
650	0.990	0.968
700	0.990	0.976
800	0.998	0.996
1060	0.998	0.996
1500	0.996	0.991
2000	0.975	0.938

屈折率の温度係数 Temperature Coefficients of Refractive Index						
	(dn/dT)rel. ($\times 10^{-6} \text{°C}^{-1}$)			(dn/dT)abs. ($\times 10^{-6} \text{°C}^{-1}$)		
(°C)	1548.1	d	g	1548.1	d	g
-40/-20	-2.0	-0.5	2.3	-4.3	-2.9	-0.2
0/+20	-0.7	1.2	4.5	-2.4	-0.6	2.7
+40/+60	-0.7	1.4	5.1	-2.0	0.0	3.7

847238 K-SFLDn3	nd	1.84670	ν d	23.8	nF-nC	0.03553
	ne	1.85506	ν e	23.6	nF'-nC'	0.03616

屈折率 Refractive Indices		
n1548	1548.1	1.79991
n1309	1308.5	1.80484
nt	1014.0	1.81306
nA'	768.2	1.82575
nr	706.5	1.83104
nC	656.3	1.83654
nC'	643.9	1.83812
nD	589.3	1.84639
nd	587.6	1.84670
ne	546.1	1.85506
nF	486.1	1.87207
nF'	480.0	1.87428
ng	435.8	1.89409
nh	404.7	1.91413
ni	365.0	

分散式の常数 Constants of Dispersion Formula	
A0	3.2514481
A1	$-1.3518435 \times 10^{-2}$
A2	4.8164106×10^{-2}
A3	3.0770868×10^{-3}
A4	$-1.6501402 \times 10^{-4}$
A5	3.1160760×10^{-5}

dn/dTの分散常数 Constants of Dispersion dn/dT abs.	
D0	-5.35×10^{-6}
D1	1.43×10^{-8}
D2	-2.48×10^{-10}
E0	1.02×10^{-6}
E1	9.91×10^{-10}
$\lambda_{TK} (\mu m)$	0.296

部分分散および部分分散比 Partial Dispersions and Relative Partial Dispersions			
nC-nt	nC-nA'	nd-nC	ne-nC
0.02348	0.01079	0.01016	0.01852
θ C,t	θ C,A'	θ d,C	θ e,C
0.661	0.304	0.286	0.521
ng-nd	ng-nF	nh-ng	ni-ng
0.04739	0.02202	0.02004	
θ g,d	θ g,F(Δ)	θ h,g	θ i,g
1.334	0.620 (0.0156)	0.564	
nC'-nt	ne-nC'	nF'-ne	ni-nF'
0.02506	0.01694	0.01922	
θ 'C',t	θ 'e,C'	θ 'F',e	θ 'i,F'
0.693	0.468	0.532	

機械的性質 Mechanical Properties	熱的性質 Thermal Properties
ヌープ硬さ Hk Knoop Hardness 495 (5)	転移点 Tg (°C) Transformation Point 604
ビッカース硬さ Hv Vickers Hardness 468	屈伏点 At (°C) Yielding Point 646
摩耗度 Ha Abrasion 170	線膨張係数 α ($\times 10^{-7} \text{°C}^{-1}$) Thermal Expansion 86
ヤング率 E ($\times 10^8 \text{N} \cdot \text{m}^{-2}$) Young's Modulus 958	(-30~+70°C) 86 (+100~+300°C) 106
剛性率 G ($\times 10^8 \text{N} \cdot \text{m}^{-2}$) Modulus of Rigidity 377	熱伝導率 λ ($\text{W} \cdot \text{m}^{-1} \cdot \text{K}^{-1}$) Thermal Conductivity
ポアソン比 σ Poisson Ratio 0.270	比熱 Cp ($\text{J} \cdot \text{kg}^{-1} \cdot \text{K}^{-1}$) Specific Heat
化学的性質 Chemical Properties	その他 Other Properties
耐水性(粉末法) RW Water Resistance 1	泡 B Bubbles
耐酸性(粉末法) RA Acid Resistance 1	着色度 C Coloration (41)/37
耐久性(表面法) DW Chemical Durability 1	比重 S.g Specific Gravity 3.49
備考 Remarks	生産頻度 PF Production frequency

内部透過率 τ Internal Transmittance		
λ (nm)	3mm	10mm
270		
280		
290		
300		
310		
320		
330		
340		
350	0.089	
360	0.283	0.014
370	0.541	0.129
380	0.764	0.407
390	0.877	0.646
400	0.928	0.782
420	0.969	0.901
440	0.983	0.944
460	0.989	0.965
480	0.992	0.976
500	0.994	0.983
550	0.997	0.991
600	0.997	0.992
650	0.997	0.990
700	0.997	0.993
800	0.999	0.997
1060	0.999	0.999
1500	0.999	0.997
2000	0.993	0.978

屈折率の温度係数 Temperature Coefficients of Refractive Index						
	(dn/dT)rel. ($\times 10^{-6} \text{°C}^{-1}$)			(dn/dT)abs. ($\times 10^{-6} \text{°C}^{-1}$)		
(°C)	1548.1	d	g	1548.1	d	g
-40/-20	-2.7	-0.8	2.9	-5.1	-3.3	0.2
0/+20	-1.5	0.7	4.7	-3.3	-1.2	2.8
+40/+60	-1.6	0.8	5.2	-2.9	-0.6	3.7

847238 K-SFLDn3W	nd	1.84670	ν d	23.8	nF-nC	0.03552
	ne	1.85506	ν e	23.6	nF'-nC'	0.03616

屈折率 Refractive Indices		
n1548	1548.1	1.79993
n1309	1308.5	1.80483
nt	1014.0	1.81306
nA'	768.2	1.82578
nr	706.5	1.83106
nC	656.3	1.83656
nC'	643.9	1.83813
nD	589.3	1.84639
nd	587.6	1.84670
ne	546.1	1.85506
nF	486.1	1.87208
nF'	480.0	1.87429
ng	435.8	1.89412
nh	404.7	1.91411
ni	365.0	

分散式の常数 Constants of Dispersion Formula	
A0	3.2497343
A1	$-1.3066270 \times 10^{-2}$
A2	5.0214784×10^{-2}
A3	2.1132827×10^{-3}
A4	2.6714562×10^{-5}
A5	1.7728631×10^{-5}

dn/dTの分散常数 Constants of Dispersion dn/dT abs.	
D0	-6.01×10^{-6}
D1	1.70×10^{-8}
D2	-6.85×10^{-11}
E0	1.12×10^{-6}
E1	1.39×10^{-9}
$\lambda_{TK} (\mu m)$	0.291

部分分散および部分分散比 Partial Dispersions and Relative Partial Dispersions			
nC-nt	nC-nA'	nd-nC	ne-nC
0.02350	0.01078	0.01014	0.01850
$\theta_{C,t}$	$\theta_{C,A'}$	$\theta_{d,C}$	$\theta_{e,C}$
0.662	0.303	0.285	0.521
ng-nd	ng-nF	nh-ng	ni-ng
0.04742	0.02204	0.01999	
$\theta_{g,d}$	$\theta_{g,F(\Delta)}$	$\theta_{h,g}$	$\theta_{i,g}$
1.335	0.620 (0.0159)	0.563	
nC'-nt	ne-nC'	nF'-ne	ni-nF'
0.02507	0.01693	0.01923	
$\theta_{C',t}$	$\theta_{e,C'}$	$\theta_{F',e}$	$\theta_{i,F'}$
0.693	0.468	0.532	

機械的性質 Mechanical Properties	熱的性質 Thermal Properties
ヌープ硬さ Hk Knoop Hardness 482 (5)	転移点 Tg (°C) Transformation Point 605
ビッカース硬さ Hv Vickers Hardness 449	屈伏点 At (°C) Yielding Point 637
摩耗度 Ha Abrasion 170	線膨張係数 $\alpha (\times 10^{-7} \text{°C}^{-1})$ Thermal Expansion
ヤング率 E ($\times 10^8 \text{N} \cdot \text{m}^{-2}$) Young's Modulus 956	(-30~+70°C) 84 (+100~+300°C) 108
剛性率 G ($\times 10^8 \text{N} \cdot \text{m}^{-2}$) Modulus of Rigidity 376	熱伝導率 $\lambda (\text{W} \cdot \text{m}^{-1} \cdot \text{K}^{-1})$ Thermal Conductivity
ポアソン比 σ Poisson Ratio 0.270	比熱 Cp ($\text{J} \cdot \text{kg}^{-1} \cdot \text{K}^{-1}$) Specific Heat
化学的性質 Chemical Properties	その他 Other Properties
耐水性(粉末法) RW Water Resistance 1	泡 B Bubbles
耐酸性(粉末法) RA Acid Resistance 1	着色度 C Coloration (40)/37
耐久性(表面法) DW Chemical Durability 1	比重 S.g Specific Gravity 3.49
備考 Remarks	生産頻度 PF Production frequency

内部透過率 τ Internal Transmittance		
$\lambda(\text{nm})$	3mm	10mm
270		
280		
290		
300		
310		
320		
330		
340		
350		
360	0.140	
370	0.533	0.123
380	0.802	0.481
390	0.905	0.719
400	0.946	0.833
420	0.976	0.924
440	0.986	0.957
460	0.991	0.972
480	0.994	0.981
500	0.995	0.986
550	0.998	0.994
600	0.998	0.994
650	0.997	0.991
700	0.998	0.993
800	0.999	0.997
1060	0.999	0.999
1500	0.999	0.997
2000	0.993	0.979

屈折率の温度係数 Temperature Coefficients of Refractive Index						
	(dn/dT)rel. ($\times 10^{-6} \text{°C}^{-1}$)			(dn/dT)abs. ($\times 10^{-6} \text{°C}^{-1}$)		
(°C)	1548.1	d	g	1548.1	d	g
-40/-20	-2.4	-0.4	3.4	-4.9	-2.9	0.7
0/+20	-1.9	0.4	4.7	-3.7	-1.4	2.7
+40/+60	-1.5	1.1	5.8	-2.9	-0.4	4.3

007262 K-BOC30	nd	2.00680	ν d	26.2	nF-nC	0.03845
	ne	2.01587	ν e	26.0	nF'-nC'	0.03910

屈折率 Refractive Indices		
n1548	1548.1	1.95576
n1309	1308.5	1.96107
nt	1014.0	1.97003
nA'	768.2	1.98396
nr	706.5	1.98975
nC	656.3	1.99575
nC'	643.9	1.99747
nD	589.3	2.00647
nd	587.6	2.00680
ne	546.1	2.01587
nF	486.1	2.03420
nF'	480.0	2.03657
ng	435.8	2.05766
nh	404.7	2.07869
ni	365.0	

分散式の常数 Constants of Dispersion Formula	
A0	3.8356956
A1	$-1.5106203 \times 10^{-2}$
A2	6.0037570×10^{-2}
A3	2.6135256×10^{-3}
A4	$-1.9280273 \times 10^{-5}$
A5	2.0127922×10^{-5}

dn/dTの分散常数 Constants of Dispersion dn/dT abs.	
D0	-1.71×10^{-6}
D1	1.58×10^{-8}
D2	-2.57×10^{-10}
E0	1.04×10^{-6}
E1	1.10×10^{-9}
$\lambda_{TK} (\mu m)$	0.282

部分分散および部分分散比 Partial Dispersions and Relative Partial Dispersions			
nC-nt	nC-nA'	nd-nC	ne-nC
0.02572	0.01179	0.01105	0.02012
$\theta_{C,t}$	$\theta_{C,A'}$	$\theta_{d,C}$	$\theta_{e,C}$
0.669	0.307	0.287	0.523
ng-nd	ng-nF	nh-ng	ni-ng
0.05086	0.02346		
$\theta_{g,d}$	$\theta_{g,F(\Delta)}$	$\theta_{h,g}$	$\theta_{i,g}$
1.323	0.610 (0.0099)		
nC'-nt	ne-nC'	nF'-ne	ni-nF'
0.02744	0.01840	0.02070	
$\theta_{'C',t}$	$\theta_{'e,C'}$	$\theta_{'F',e}$	$\theta_{'i,F'}$
0.702	0.471	0.529	

機械的性質 Mechanical Properties	熱的性質 Thermal Properties
ヌープ硬さ Hk Knoop Hardness 566 (6)	転移点 Tg (°C) Transformation Point 733
ビッカース硬さ Hv Vickers Hardness 558	屈伏点 At (°C) Yielding Point 776
摩耗度 Ha Abrasion 84	線膨張係数 $\alpha (\times 10^{-7} \text{°C}^{-1})$ Thermal Expansion
ヤング率 E ($\times 10^8 \text{N} \cdot \text{m}^{-2}$) Young's Modulus 1246	(-30~+70°C) 70 (+100~+300°C) 85
剛性率 G ($\times 10^8 \text{N} \cdot \text{m}^{-2}$) Modulus of Rigidity 478	熱伝導率 $\lambda (\text{W} \cdot \text{m}^{-1} \cdot \text{K}^{-1})$ Thermal Conductivity 0.892
ポアソン比 σ Poisson Ratio 0.303	比熱 Cp ($\text{J} \cdot \text{kg}^{-1} \cdot \text{K}^{-1}$) Specific Heat 481
化学的性質 Chemical Properties	その他 Other Properties
耐水性(粉末法) RW Water Resistance 1	泡 B Bubbles
耐酸性(粉末法) RA Acid Resistance 1	着色度 C Coloration (48)/38
耐久性(表面法) DW Chemical Durability 1	比重 S.g Specific Gravity 4.80
備考 Remarks	生産頻度 PF Production frequency C

内部透過率 τ Internal Transmittance		
$\lambda(\text{nm})$	3mm	10mm
270		
280		
290		
300		
310		
320		
330		
340		
350		
360	0.068	
370	0.242	
380	0.452	0.071
390	0.617	0.200
400	0.730	0.351
420	0.859	0.603
440	0.919	0.757
460	0.948	0.839
480	0.965	0.887
500	0.976	0.922
550	0.991	0.970
600	0.994	0.982
650	0.995	0.985
700	0.996	0.989
800	0.998	0.995
1060	0.999	0.998
1500	0.999	0.998
2000	0.996	0.987

屈折率の温度係数 Temperature Coefficients of Refractive Index						
	(dn/dT)rel. ($\times 10^{-6} \text{°C}^{-1}$)			(dn/dT)abs. ($\times 10^{-6} \text{°C}^{-1}$)		
(°C)	1548.1	d	g	1548.1	d	g
-40/-20	-0.9	1.4	5.4	-3.5	-1.3	2.5
0/+20	0.7	3.3	7.7	-1.2	1.3	5.6
+40/+60	0.8	3.6	8.3	-0.7	2.0	6.7

859330 K-GIR79	nd	1.85920	ν d	33.0	nF-nC	0.02601
	ne	1.86536	ν e	32.8	nF'-nC'	0.02640

屈折率 Refractive Indices		
n1548	1548.1	1.82418
n1309	1308.5	1.82768
nt	1014.0	1.83378
nA'	768.2	1.84344
nr	706.5	1.84745
nC	656.3	1.85161
nC'	643.9	1.85279
nD	589.3	1.85897
nd	587.6	1.85920
ne	546.1	1.86536
nF	486.1	1.87762
nF'	480.0	1.87919
ng	435.8	1.89290
nh	404.7	1.90617
ni	365.0	1.93019

分散式の常数 Constants of Dispersion Formula	
A0	3.3309552
A1	$-8.5102025 \times 10^{-3}$
A2	4.0332166×10^{-2}
A3	1.4009819×10^{-3}
A4	$-1.9888108 \times 10^{-5}$
A5	7.1174530×10^{-6}

dn/dTの分散常数 Constants of Dispersion dn/dT abs.	
D0	7.26×10^{-6}
D1	1.60×10^{-8}
D2	-2.45×10^{-10}
E0	1.26×10^{-6}
E1	1.15×10^{-9}
$\lambda_{TK} (\mu m)$	0.230

部分分散および部分分散比 Partial Dispersions and Relative Partial Dispersions			
nC-nt	nC-nA'	nd-nC	ne-nC
0.01783	0.00817	0.00759	0.01375
$\theta_{C,t}$	$\theta_{C,A'}$	$\theta_{d,C}$	$\theta_{e,C}$
0.686	0.314	0.292	0.529
ng-nd	ng-nF	nh-ng	ni-ng
0.03370	0.01528	0.01327	0.03729
$\theta_{g,d}$	$\theta_{g,F(\Delta)}$	$\theta_{h,g}$	$\theta_{i,g}$
1.296	0.587 (-0.0017)	0.510	1.434
nC'-nt	ne-nC'	nF'-ne	ni-nF'
0.01901	0.01257	0.01383	0.05100
$\theta_{C',t}$	$\theta_{e,C'}$	$\theta_{F',e}$	$\theta_{i,F'}$
0.720	0.476	0.524	1.932

機械的性質 Mechanical Properties	熱的性質 Thermal Properties
ヌープ硬さ Hk Knoop Hardness 510 (5)	転移点 Tg (°C) Transformation Point 649
ビッカース硬さ Hv Vickers Hardness 508	屈伏点 At (°C) Yielding Point 705
摩耗度 Ha Abrasion 196	線膨張係数 $\alpha (\times 10^{-7} \text{°C}^{-1})$ Thermal Expansion 73
ヤング率 E ($\times 10^8 \text{N} \cdot \text{m}^{-2}$) Young's Modulus 882	(-30~+70°C) 73 (+100~+300°C) 91
剛性率 G ($\times 10^8 \text{N} \cdot \text{m}^{-2}$) Modulus of Rigidity 342	熱伝導率 $\lambda (\text{W} \cdot \text{m}^{-1} \cdot \text{K}^{-1})$ Thermal Conductivity 0.727
ポアソン比 σ Poisson Ratio 0.289	比熱 Cp ($\text{J} \cdot \text{kg}^{-1} \cdot \text{K}^{-1}$) Specific Heat 426
化学的性質 Chemical Properties	その他 Other Properties
耐水性(粉末法) RW Water Resistance 1	泡 B Bubbles
耐酸性(粉末法) RA Acid Resistance 4	着色度 C Coloration (45)/35
耐久性(表面法) DW Chemical Durability 1	比重 S.g Specific Gravity 5.17
備考 Remarks	生産頻度 PF Production frequency

内部透過率 τ Internal Transmittance		
$\lambda (\text{nm})$	3mm	10mm
270		
280		
290		
300		
310		
320		
330		
340	0.117	
350	0.348	0.029
360	0.532	0.122
370	0.649	0.236
380	0.734	0.357
390	0.803	0.481
400	0.855	0.593
420	0.915	0.746
440	0.945	0.828
460	0.963	0.882
480	0.974	0.917
500	0.985	0.951
550	0.996	0.987
600	0.998	0.996
650	0.998	0.995
700	0.998	0.996
800	0.999	0.996
1060	0.999	0.997
1500	0.999	0.997
2000	0.999	0.996

屈折率の温度係数 Temperature Coefficients of Refractive Index						
	(dn/dT)rel. ($\times 10^{-6} \text{°C}^{-1}$)			(dn/dT)abs. ($\times 10^{-6} \text{°C}^{-1}$)		
(°C)	1548.1	d	g	1548.1	d	g
-40/-20	5.2	7.6	10.9	2.8	5.1	8.3
0/+20	6.5	9.2	12.8	4.7	7.3	10.9
+40/+60	6.6	9.4	13.3	5.2	8.0	11.8

751431 K-GIR140	nd	1.75106	ν d	43.1	nF-nC	0.01743
	ne	1.75521	ν e	42.8	nF'-nC'	0.01765

屈折率 Refractive Indices		
n1548	1548.1	1.72651
n1309	1308.5	1.72913
nt	1014.0	1.73354
nA'	768.2	1.74029
nr	706.5	1.74306
nC	656.3	1.74591
nC'	643.9	1.74672
nD	589.3	1.75091
nd	587.6	1.75106
ne	546.1	1.75521
nF	486.1	1.76334
nF'	480.0	1.76437
ng	435.8	1.77325
nh	404.7	1.78165
ni	365.0	1.79635

分散式の常数 Constants of Dispersion Formula	
A0	2.9854628
A1	$-6.5859032 \times 10^{-3}$
A2	2.6407911×10^{-2}
A3	8.4695423×10^{-4}
A4	$-3.2505558 \times 10^{-5}$
A5	3.1878545×10^{-6}

dn/dTの分散常数 Constants of Dispersion dn/dT abs.	
D0	5.13×10^{-6}
D1	1.39×10^{-8}
D2	-3.39×10^{-10}
E0	9.92×10^{-7}
E1	9.74×10^{-10}
$\lambda_{TK} (\mu m)$	0.216

部分分散および部分分散比 Partial Dispersions and Relative Partial Dispersions			
nC-nt	nC-nA'	nd-nC	ne-nC
0.01237	0.00562	0.00515	0.00930
$\theta_{C,t}$	$\theta_{C,A'}$	$\theta_{d,C}$	$\theta_{e,C}$
0.710	0.322	0.295	0.534
ng-nd	ng-nF	nh-ng	ni-ng
0.02219	0.00991	0.00840	0.02310
$\theta_{g,d}$	$\theta_{g,F(\Delta)}$	$\theta_{h,g}$	$\theta_{i,g}$
1.273	0.569 (-0.0040)	0.482	1.325
nC'-nt	ne-nC'	nF'-ne	ni-nF'
0.01318	0.00849	0.00916	0.03198
$\theta_{C',t}$	$\theta_{e,C'}$	$\theta_{F',e}$	$\theta_{i,F'}$
0.747	0.481	0.519	1.812

機械的性質 Mechanical Properties	熱的性質 Thermal Properties
ヌープ硬さ Hk Knoop Hardness 476 (5)	転移点 Tg (°C) Transformation Point 599
ビッカース硬さ Hv Vickers Hardness 508	屈伏点 At (°C) Yielding Point 638
摩耗度 Ha Abrasion 200	線膨張係数 $\alpha (\times 10^{-7} \text{°C}^{-1})$ Thermal Expansion 59
ヤング率 E ($\times 10^8 \text{N} \cdot \text{m}^{-2}$) Young's Modulus 832	(-30~+70°C) 59 (+100~+300°C) 97
剛性率 G ($\times 10^8 \text{N} \cdot \text{m}^{-2}$) Modulus of Rigidity 322	熱伝導率 $\lambda (\text{W} \cdot \text{m}^{-1} \cdot \text{K}^{-1})$ Thermal Conductivity 0.709
ポアソン比 σ Poisson Ratio 0.294	比熱 Cp ($\text{J} \cdot \text{kg}^{-1} \cdot \text{K}^{-1}$) Specific Heat 424
化学的性質 Chemical Properties	その他 Other Properties
耐水性(粉末法) RW Water Resistance 1	泡 B Bubbles
耐酸性(粉末法) RA Acid Resistance 4	着色度 C Coloration 37/28
耐久性(表面法) DW Chemical Durability 1	比重 S.g Specific Gravity 5.24
備考 Remarks	生産頻度 PF Production frequency

内部透過率 τ Internal Transmittance		
$\lambda(\text{nm})$	3mm	10mm
270		
280	0.291	0.017
290	0.506	0.104
300	0.654	0.244
310	0.721	0.337
320	0.863	0.613
330	0.913	0.740
340	0.945	0.830
350	0.963	0.884
360	0.975	0.922
370	0.984	0.948
380	0.989	0.965
390	0.992	0.976
400	0.995	0.984
420	0.997	0.990
440	0.998	0.995
460	0.998	0.998
480	0.998	0.998
500	0.998	0.998
550	0.998	0.998
600	0.998	0.998
650	0.998	0.998
700	0.998	0.998
800	0.998	0.995
1060	0.998	0.996
1500	0.999	0.999
2000	0.999	0.999

屈折率の温度係数 Temperature Coefficients of Refractive Index						
	(dn/dT)rel. ($\times 10^{-6} \text{°C}^{-1}$)			(dn/dT)abs. ($\times 10^{-6} \text{°C}^{-1}$)		
(°C)	1548.1	d	g	1548.1	d	g
-40/-20	3.2	4.9	6.9	0.9	2.5	4.5
0/+20	4.7	6.5	8.8	3.0	4.7	7.0
+40/+60	4.5	6.4	8.9	3.2	5.1	7.5

425978 K-FIR98UV	nd	1.42537	ν d	97.8	nF-nC	0.00435
	ne	1.42641	ν e	97.4	nF'-nC'	0.00438

屈折率 Refractive Indices		
n1548	1548.1	1.41742
n1309	1308.5	1.41869
nt	1014.0	1.42041
nA'	768.2	1.42250
nr	706.5	1.42327
nC	656.3	1.42404
nC'	643.9	1.42425
nD	589.3	1.42533
nd	587.6	1.42537
ne	546.1	1.42641
nF	486.1	1.42839
nF'	480.0	1.42863
ng	435.8	1.43071
nh	404.7	1.43262
ni	365.0	1.43583

分散式の常数 Constants of Dispersion Formula	
A0	2.0158016
A1	$-3.8179076 \times 10^{-3}$
A2	5.8067887×10^{-3}
A3	4.2558748×10^{-5}
A4	7.6622455×10^{-7}
A5	1.6716816×10^{-9}

dn/dTの分散常数 Constants of Dispersion dn/dT abs.	
D0	-2.03×10^{-5}
D1	-7.73×10^{-9}
D2	1.17×10^{-11}
E0	3.55×10^{-7}
E1	7.78×10^{-10}
$\lambda_{TK} (\mu m)$	0.111

部分分散および部分分散比 Partial Dispersions and Relative Partial Dispersions			
nC-nt	nC-nA'	nd-nC	ne-nC
0.00363	0.00154	0.00133	0.00237
$\theta_{C,t}$	$\theta_{C,A'}$	$\theta_{d,C}$	$\theta_{e,C}$
0.834	0.354	0.306	0.545
ng-nd	ng-nF	nh-ng	ni-ng
0.00534	0.00232	0.00191	0.00512
$\theta_{g,d}$	$\theta_{g,F(\Delta)}$	$\theta_{h,g}$	$\theta_{i,g}$
1.228	0.533 (0.0533)	0.439	1.177
nC'-nt	ne-nC'	nF'-ne	ni-nF'
0.00384	0.00216	0.00222	0.00720
$\theta'_{C',t}$	$\theta'_{e,C'}$	$\theta'_{F',e}$	$\theta'_{i,F'}$
0.877	0.493	0.507	1.644

機械的性質 Mechanical Properties	熱的性質 Thermal Properties
ヌープ硬さ Hk Knoop Hardness 351 (4)	転移点 Tg (°C) Transformation Point 427
ビッカース硬さ Hv Vickers Hardness 356	屈伏点 At (°C) Yielding Point 447
摩耗度 Ha Abrasion 390	線膨張係数 $\alpha (\times 10^{-7} \text{°C}^{-1})$ Thermal Expansion
ヤング率 E ($\times 10^8 \text{N} \cdot \text{m}^{-2}$) Young's Modulus 712	(-30~+70°C) 130 (+100~+300°C) 163
剛性率 G ($\times 10^8 \text{N} \cdot \text{m}^{-2}$) Modulus of Rigidity 276	熱伝導率 $\lambda (\text{W} \cdot \text{m}^{-1} \cdot \text{K}^{-1})$ Thermal Conductivity 0.867
ポアソン比 σ Poisson Ratio 0.288	比熱 Cp ($\text{J} \cdot \text{kg}^{-1} \cdot \text{K}^{-1}$) Specific Heat 707
化学的性質 Chemical Properties	その他 Other Properties
耐水性(粉末法) RW Water Resistance 2	泡 B Bubbles
耐酸性(粉末法) RA Acid Resistance 4	着色度 C Coloration 24/
耐久性(表面法) DW Chemical Durability 1	比重 S.g Specific Gravity 3.75
備考 Remarks	生産頻度 PF Production frequency

内部透過率 τ Internal Transmittance		
$\lambda(\text{nm})$	3mm	10mm
270	0.993	0.977
280	0.996	0.989
290	0.998	0.994
300	0.999	0.997
310	0.999	0.997
320	0.999	0.998
330	0.999	0.998
340	0.999	0.998
350	0.999	0.998
360	0.999	0.998
370	0.999	0.998
380	0.999	0.999
390	0.999	0.999
400	0.999	0.999
420	0.999	0.999
440	0.999	0.999
460	0.999	0.999
480	0.999	0.999
500	0.999	0.999
550	0.999	0.999
600	0.999	0.999
650	0.999	0.999
700	0.999	0.999
800	0.999	0.998
1060	0.999	0.997
1500	0.999	0.997
2000	0.999	0.999

屈折率の温度係数 Temperature Coefficients of Refractive Index						
	(dn/dT)rel. ($\times 10^{-6} \text{°C}^{-1}$)			(dn/dT)abs. ($\times 10^{-6} \text{°C}^{-1}$)		
(°C)	1548.1	d	g	1548.1	d	g
-40/-20	-5.0	-4.8	-4.6	-6.9	-6.7	-6.5
0/+20	-5.7	-5.5	-5.2	-7.1	-6.9	-6.7
+40/+60	-6.3	-6.0	-5.6	-7.3	-7.1	-6.8

414010 K-FIR100UV	nd	1.41390	ν d	101.0	nF-nC	0.00410
	ne	1.41488	ν e	100.5	nF'-nC'	0.00413

屈折率 Refractive Indices		
n1548	1548.1	1.40621
n1309	1308.5	1.40748
nt	1014.0	1.40917
nA'	768.2	1.41118
nr	706.5	1.41191
nC	656.3	1.41264
nC'	643.9	1.41284
nD	589.3	1.41386
nd	587.6	1.41390
ne	546.1	1.41488
nF	486.1	1.41674
nF'	480.0	1.41697
ng	435.8	1.41893
nh	404.7	1.42073
ni	365.0	1.42375

分散式の常数 Constants of Dispersion Formula	
A0	1.9845467
A1	$-3.9034211 \times 10^{-3}$
A2	5.3331804×10^{-3}
A3	5.5561154×10^{-5}
A4	$-4.9201283 \times 10^{-7}$
A5	2.6560523×10^{-8}

dn/dTの分散常数 Constants of Dispersion dn/dT abs.	
D0	-1.94×10^{-5}
D1	-3.34×10^{-9}
D2	1.68×10^{-11}
E0	3.30×10^{-7}
E1	8.86×10^{-10}
$\lambda_{TK} (\mu m)$	0.100

部分分散および部分分散比 Partial Dispersions and Relative Partial Dispersions			
nC-nt	nC-nA'	nd-nC	ne-nC
0.00347	0.00146	0.00126	0.00224
$\theta_{C,t}$	$\theta_{C,A'}$	$\theta_{d,C}$	$\theta_{e,C}$
0.846	0.356	0.307	0.546
ng-nd	ng-nF	nh-ng	ni-ng
0.00503	0.00219	0.00180	0.00482
$\theta_{g,d}$	$\theta_{g,F(\Delta)}$	$\theta_{h,g}$	$\theta_{i,g}$
1.227	0.534 (0.0598)	0.439	1.176
nC'-nt	ne-nC'	nF'-ne	ni-nF'
0.00367	0.00204	0.00209	0.00678
$\theta_{C',t}$	$\theta_{e,C'}$	$\theta_{F',e}$	$\theta_{i,F'}$
0.889	0.494	0.506	1.642

機械的性質 Mechanical Properties	熱的性質 Thermal Properties
ヌープ硬さ Hk Knoop Hardness 321 (3)	転移点 Tg (°C) Transformation Point 427
ビッカース硬さ Hv Vickers Hardness 307	屈伏点 At (°C) Yielding Point 453
摩耗度 Ha Abrasion 380	線膨張係数 $\alpha (\times 10^{-7} \text{°C}^{-1})$ Thermal Expansion
ヤング率 E ($\times 10^8 \text{N} \cdot \text{m}^{-2}$) Young's Modulus 728	(-30~+70°C) 129 (+100~+300°C) 160
剛性率 G ($\times 10^8 \text{N} \cdot \text{m}^{-2}$) Modulus of Rigidity 280	熱伝導率 $\lambda (\text{W} \cdot \text{m}^{-1} \cdot \text{K}^{-1})$ Thermal Conductivity 0.898
ポアソン比 σ Poisson Ratio 0.298	比熱 Cp ($\text{J} \cdot \text{kg}^{-1} \cdot \text{K}^{-1}$) Specific Heat 730
化学的性質 Chemical Properties	その他 Other Properties
耐水性(粉末法) RW Water Resistance 3	泡 B Bubbles
耐酸性(粉末法) RA Acid Resistance 3	着色度 C Coloration 20/
耐久性(表面法) DW Chemical Durability 1	比重 S.g Specific Gravity 3.64
備考 Remarks	生産頻度 PF Production frequency

内部透過率 τ Internal Transmittance		
$\lambda(\text{nm})$	3mm	10mm
270	0.999	0.998
280	0.999	0.998
290	0.999	0.998
300	0.999	0.998
310	0.999	0.998
320	0.999	0.998
330	0.999	0.998
340	0.999	0.998
350	0.999	0.999
360	0.999	0.998
370	0.999	0.998
380	0.999	0.998
390	0.999	0.998
400	0.999	0.998
420	0.999	0.998
440	0.999	0.998
460	0.999	0.998
480	0.999	0.998
500	0.999	0.999
550	0.999	0.999
600	0.999	0.999
650	0.999	0.999
700	0.999	0.999
800	0.999	0.999
1060	0.999	0.999
1500	0.999	0.998
2000	0.999	0.999

屈折率の温度係数 Temperature Coefficients of Refractive Index						
	(dn/dT)rel. ($\times 10^{-6} \text{°C}^{-1}$)			(dn/dT)abs. ($\times 10^{-6} \text{°C}^{-1}$)		
(°C)	1548.1	d	g	1548.1	d	g
-40/-20	-4.7	-4.5	-4.3	-6.6	-6.4	-6.3
0/+20	-5.3	-5.1	-4.8	-6.7	-6.5	-6.3
+40/+60	-5.7	-5.4	-5.1	-6.7	-6.5	-6.2

