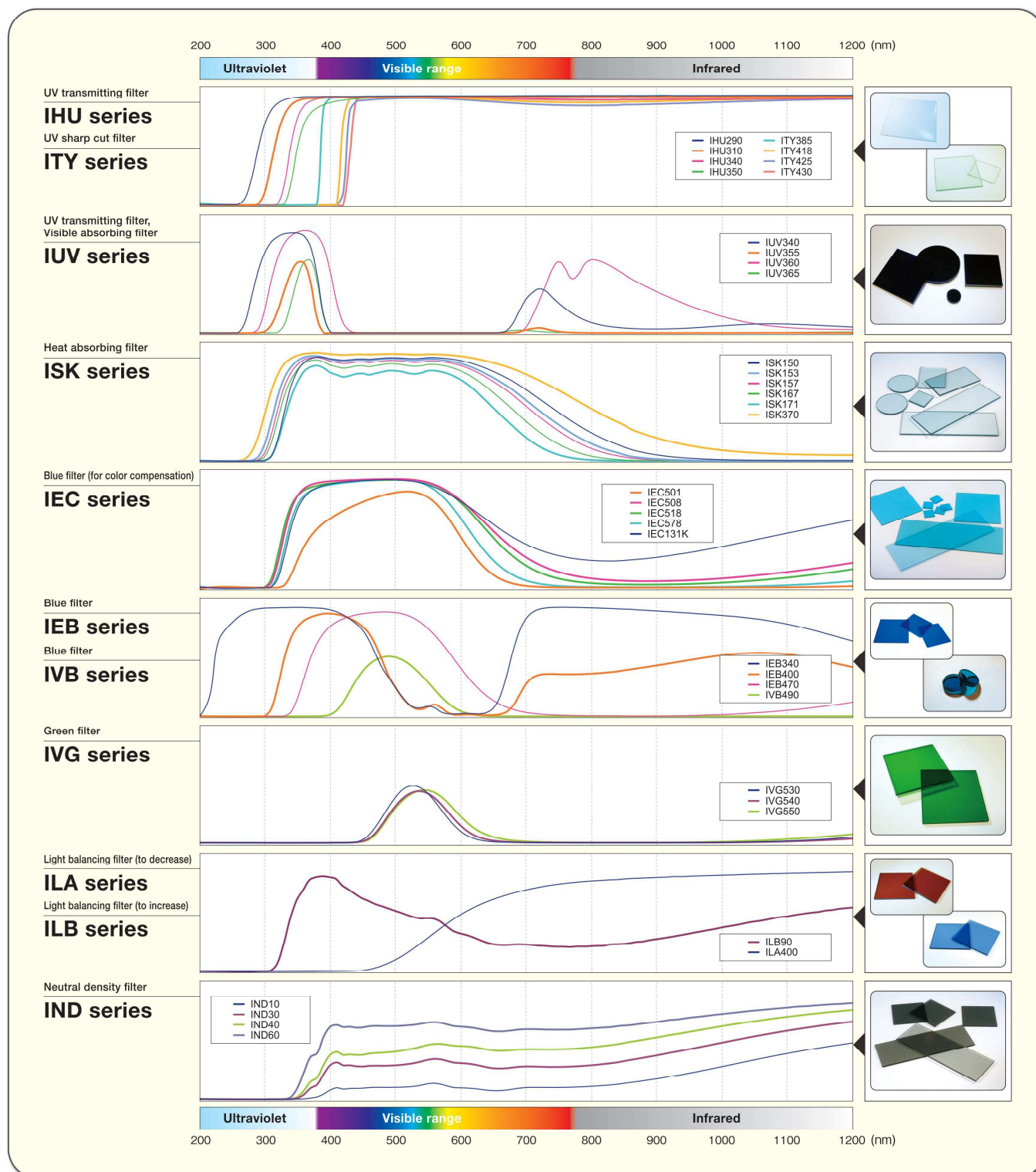
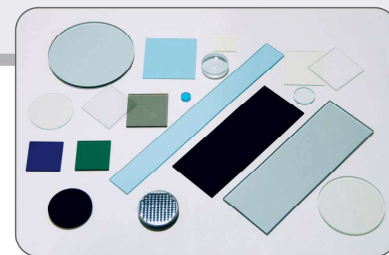


Optical glass filter [Transmission]

ISUZU GLASS offers our own optical glass materials (absorbing filter).
All of our optical filters are eco-friendly glass filters.



Optical glass filter 【Optical Properties】

ISUZU		Similar Filter		Thermal Characteristic		Hardness	Refractive index	Density	Water Resistance	Thickness	Optical Density OD @1064nm	Transmittance
		SCHOTT	HOYA	$\alpha_{100-300}$ ($\times 10^{-7}/^{\circ}\text{C}$)	Tg ($^{\circ}\text{C}$)							
IHU series	IHU290			49	513	571	1.50	2.31	3	2.5±0.5		$\lambda\text{T } 290\pm 7\text{nm}$ $\Delta\lambda < 40$ $\text{TH} \geq 85\%$
	IHU310			94	533	542	1.52	2.55	3	2.5±0.5		$\lambda\text{T } 310\pm 7\text{nm}$ $\Delta\lambda < 40$ $\text{TH} \geq 85\%$
	IHU340		(UV34)	58	610	433	1.52	2.57	1	2.5±0.5		$\lambda\text{T } 340\pm 7\text{nm}$ $\Delta\lambda < 40$ $\text{TH} \geq 85\%$
	IHU350			74	534	610	1.52	2.45	2	2.5±0.5		$\lambda\text{T } 350\pm 7\text{nm}$ $\Delta\lambda < 40$ $\text{TH} \geq 85\%$
ITY series	ITY385	(GG 385)	L-39	53	498	472	1.49	2.30	6	1.1±0.2		$\lambda\text{T } 50\%$ $385\pm 3\text{nm}$ $\text{TH} \geq 85\%$
	ITY418	GG 420	L-42	68.5	517	491	1.49	2.38	4	1.1±0.2		$\lambda\text{T } 50\%$ $418\pm 3\text{nm}$ $\text{TH} \geq 85\%$
	ITY425			68	529	512	1.50	2.40	4	1.1±0.2		$\lambda\text{T } 50\%$ $425\pm 3\text{nm}$ $\text{TH} \geq 85\%$
	ITY430			68	530	520	1.50	2.39	4	1.1±0.2		$\lambda\text{T } 50\%$ $430\pm 3\text{nm}$ $\text{TH} \geq 85\%$
IUV series	IUV340	UG11	U-340	59	600	493	1.53	2.64	2	1.0±0.2		$\lambda\text{Tmax } 340\pm 10\text{nm}$ $\text{Tmax } 83\pm 5\%$
	IUV355			76	569	416	1.52	2.69	1	3.0±0.5		$\lambda\text{Tmax } 355\pm 5\text{nm}$ $\text{Tmax } 60\pm 5\%$ $254\text{nm} \leq 0.1\%$ $405\text{nm} \leq 0.1\%$
	IUV360			99	572	561	1.53	2.60	3	2.5±0.5		$\lambda\text{Tmax } 360\pm 5\text{nm}$ $\text{Tmax } 86\pm 5\%$
	IUV365			74	536	506	1.53	2.66	3	5.0±0.5		$\lambda\text{Tmax } 365\pm 5\text{nm}$ $\text{Tmax } 60\pm 5\%$ $254\text{nm} \leq 0.1\%$ $405\text{nm} \leq 1.0\%$
ISK series	ISK150	KG 2	HA-50	66	560	497	1.52	2.60	1	3.0±0.5	≥ 2.3	$\lambda\text{T } 50\%$ $728\pm 13\text{nm}$ Tave $\lambda 400\text{-}550\text{nm} \geq 84\%$
	ISK153			66	566	481	1.52	2.61	1	3.0±0.5	≥ 4.0	$\lambda\text{T } 50\%$ $703\pm 13\text{nm}$ Tave $\lambda 400\text{-}550\text{nm} \geq 80\%$
	ISK157	KG 1	HA-30	66	566	481	1.52	2.61	1	3.0±0.5	≥ 3.5	$\lambda\text{T } 50\%$ $698\pm 13\text{nm}$ Tave $\lambda 400\text{-}550\text{nm} \geq 80\%$
	ISK167	KG 3		65	597	502	1.52	2.64	1	3.0±0.5	≥ 5.0	$\lambda\text{T } 50\%$ $668\pm 13\text{nm}$ Tave $\lambda 400\text{-}550\text{nm} \geq 78\%$
	ISK171	KG 5		64	595	517	1.53	2.63	1	3.0±0.5	≥ 6.0	$\lambda\text{T } 50\%$ $643\pm 13\text{nm}$ Tave $\lambda 400\text{-}550\text{nm} \geq 70\%$
	ISK370	(KG 4)		67	553	482	1.51	2.58	1	3.0±0.5	≥ 1.2	$\lambda\text{T } 50\%$ $783\pm 13\text{nm}$ Tave $\lambda 400\text{-}550\text{nm} \geq 87\%$
IEC series	IEC501	BG 18		66	598	539	1.53	2.63	1	1.0±0.2		$\lambda\text{T } 50\%$ $592\pm 5\text{nm}$ $500\text{nm} \geq 77\%$
	IEC508	BG 38	(CAW-500) (CS-500)	94	432	489	1.53	2.64	2	1.0±0.2		$\lambda\text{T } 50\%$ $642\pm 5\text{nm}$ $500\text{nm} \geq 89\%$
	IEC518		C-500	69	565	531	1.53	2.66	1	1.0±0.2		$\lambda\text{T } 50\%$ $615\pm 5\text{nm}$ $500\text{nm} \geq 87\%$
	IEC578	BG 39	CM-500S	70	513	509	1.54	2.72	1	1.0±0.2		$\lambda\text{T } 50\%$ $604\pm 5\text{nm}$ $500\text{nm} \geq 85\%$
	IEC131K			135	421	387	1.51	2.59	2	1.0±0.2		$400\text{nm} \geq 75\%$ $500\text{nm} \geq 85\%$ $600\text{nm} \geq 45\%$ $700\text{nm} \geq 12\%$
IEB series	IEB340	(BG 24)		58	623	537	$\times 2: 1.51$	2.64	2	1.0±0.2		$254\text{nm} \geq 78\%$ $356\text{nm} \geq 87\%$ $580\text{nm} \leq 15\%$
	IEB400	BG25		105	469	559	$\times 2: 1.53$	2.57	2	1.0±0.2		$334\text{nm} \leq 74\%$ $405\text{nm} \geq 84\%$ $488\text{nm} \leq 38\%$ $725\text{nm} \leq 45\%$
	IEB470	(BG 23)		148	424	407	$\times 3: 1.53$	2.69	3	1.0±0.2		$450\text{nm} \geq 84\%$ $633\text{nm} \leq 23\%$ $800\text{nm} \leq 8\%$
IVB	IVB490			86	520	448	1.53	2.63	3	2.5±0.5		$\lambda\text{Tmax } 490\pm 5\text{nm}$ $\text{Tmax } 50\pm 5\%$ $390\text{nm} \leq 1\%$ $640\text{nm} \leq 1\%$
IVG series	IVG530	VG 9	G-533	86	535	492	$\times 3: 1.52$	2.57	4	2.5±0.5		$\lambda\text{Tmax } 530\pm 5\text{nm}$ $\text{Tmax } 50\pm 5\%$ $430\text{nm} \leq 1\%$ $650\text{nm} \leq 5\%$
	IVG540			86	535	495	$\times 3: 1.52$	2.58	3	2.5±0.5		$\lambda\text{Tmax } 540\pm 5\text{nm}$ $\text{Tmax } 45\pm 5\%$ $430\text{nm} \leq 1\%$ $660\text{nm} \leq 5\%$
	IVG550		G-550	85	528	482	$\times 3: 1.52$	2.58	3	2.5±0.5		$\lambda\text{Tmax } 550\pm 5\text{nm}$ $\text{Tmax } 43\pm 5\%$ $440\text{nm} \leq 1\%$ $680\text{nm} \leq 5\%$
ILA	ILA400			83	554	599	1.56	2.72	1	2.0±0.5		Light Balancing Change Ability 400 ± 30 mired
ILB	ILB90			110	502	576	1.51	2.53	2	2.4±0.5		Light Balancing Change Ability -90 ± 5 mired
IND series	IND10	NG 3	ND-13	77	523	569	1.53	2.55	3	2.2±0.2		Tave $\lambda 400\text{-}700\text{nm}$ $10\pm 2\%$
	IND30	NG 4	ND-25	79	532	571	1.52	2.55	2	2.2±0.2		Tave $\lambda 400\text{-}700\text{nm}$ $30\pm 2\%$
	IND40		ND-40	85	536	566	1.52	2.54	3	2.2±0.2		Tave $\lambda 400\text{-}700\text{nm}$ $40\pm 2\%$
	IND60	NG 5	ND-50	80	535	625	1.52	2.55	1	2.2±0.2		Tave $\lambda 400\text{-}700\text{nm}$ $60\pm 2\%$
IIR-SF series	IIR-SF1			$\times 1: 161$	236	124	$\times 4: 2.68$	4.15	1	2.0±0.3		$11\mu\text{m} \geq 50\%$
	IIR-SF2			$\times 1: 146$	250	143	$\times 4: 2.66$	4.13	1	2.0±0.3		$11\mu\text{m} \geq 50\%$ $12\mu\text{m} \geq 45\%$

• Similar filters with () might not be manufactured by the maker at present.
• OD is calculated value.

$\times 1: \alpha_{100-200}$ $\times 2: n(1545\text{nm})$ $\times 3: n(546\text{nm})$ $\times 4: n(10.6\mu\text{m})$



ISUZU GLASS Inc.

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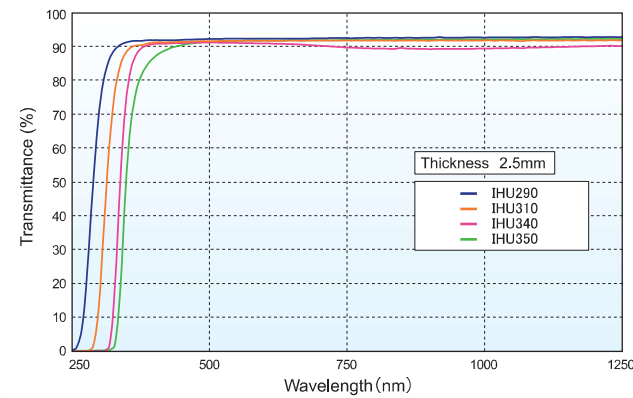
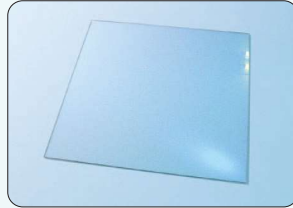
2017-05

Filter Lineup

● UV transmitting filter

IHU series

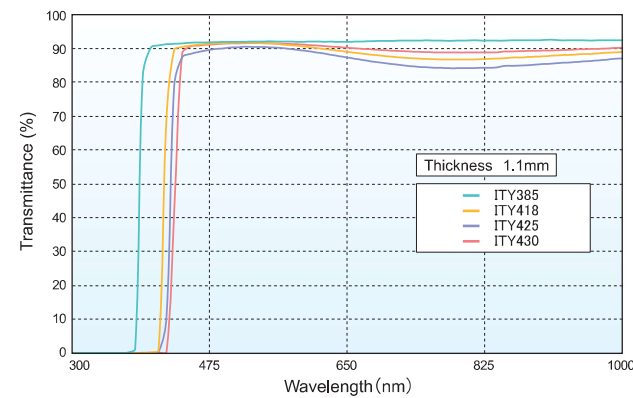
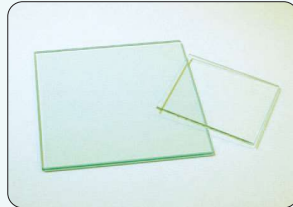
IHU series is a short-wavelength absorbing and UV transmitting filter with the transmission limit wavelength within the ultraviolet region and has good resistance to UV light.



● UV sharp cut filter

ITY series

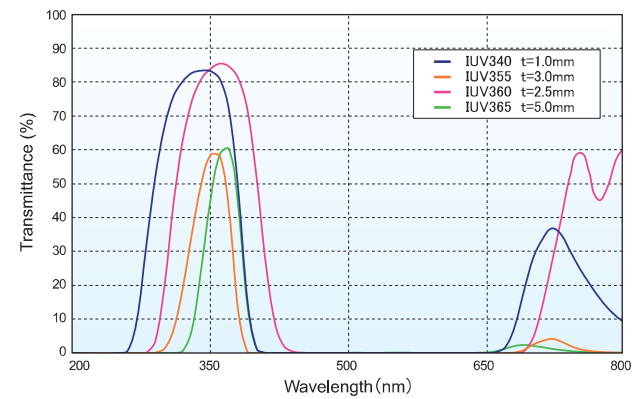
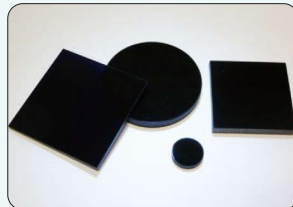
Compared to interference filters, this glass filter has a steep slope from the visible light. In addition, it is less affected by the angle of incidence and absorbs ultraviolet rays effectively.



● UV transmitting filter, Visible absorbing filter

IUV series

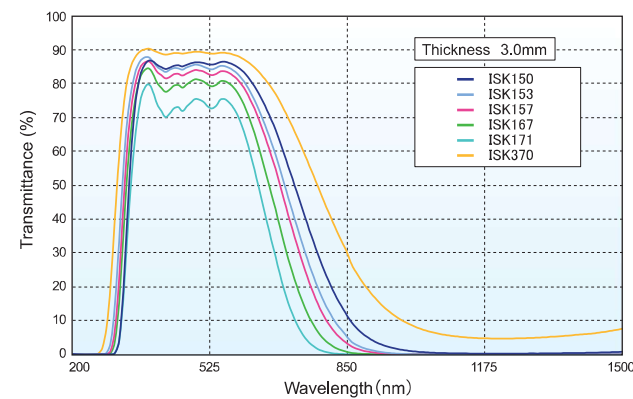
IUV series is band-pass filter designed to transmit in the UV region. They are designed to absorb visible enhance contrast for monochrome photography and to be used for color compensation.



● Heat absorbing filter

ISK series

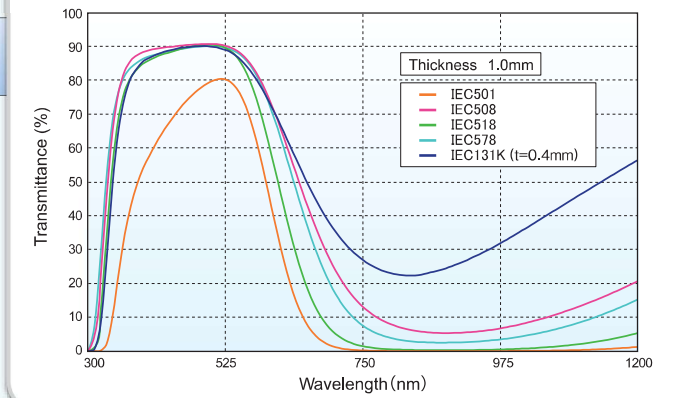
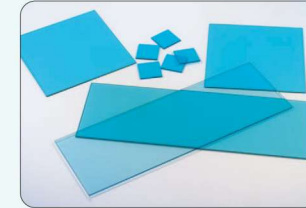
Designed to provide a very high transmission factor of visible light rays while cutting off much of the infrared light. ISK is the most used in the world for cutting of YAG laser.



● Blue filter (for color compensation)

IEC series

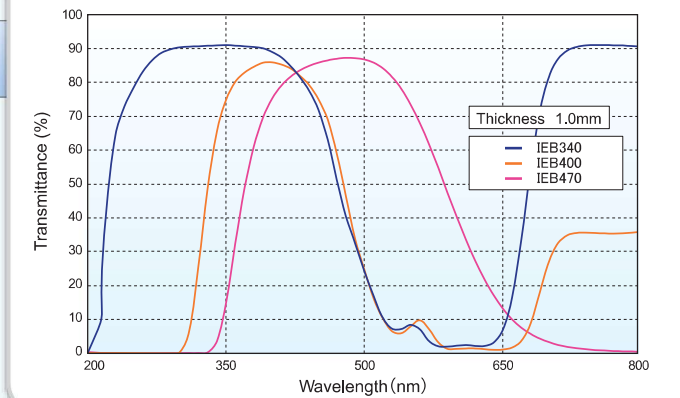
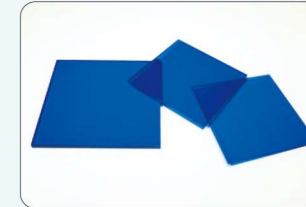
This glass has good transmission in the region of blue through green, and has a sharp decline in the red region. It is used as a IR cut filter.



● Blue filter

IEB series

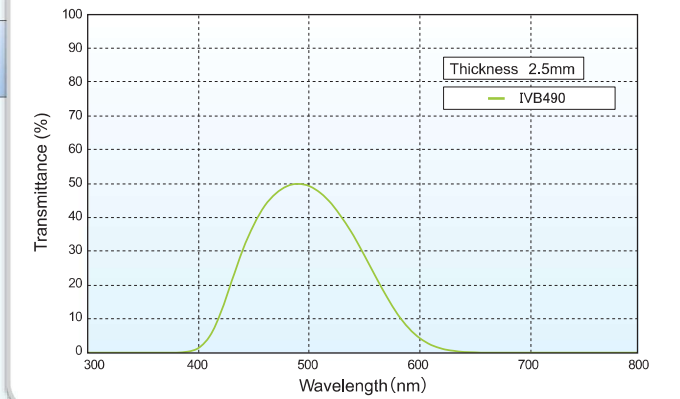
This glass has good transmission in the region of purple through blue, which is used as wave-length selection filters and for color compensation.



● Blue filter

IVB series

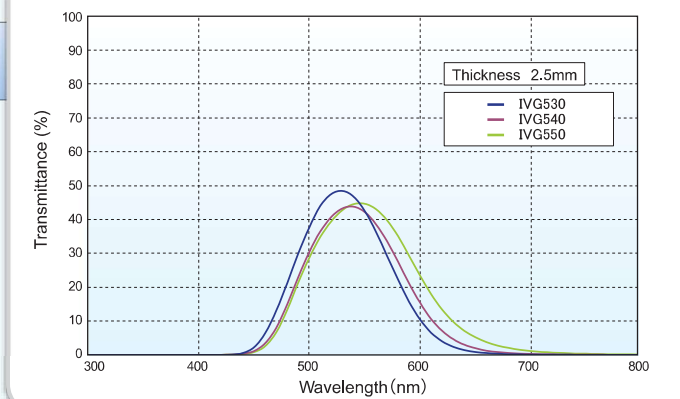
IVB series is band-pass filter designed to transmit in the blue region. They are designed to enhance contrast for monochrome photography and to be used for color compensation.



● Green filter

IVG series

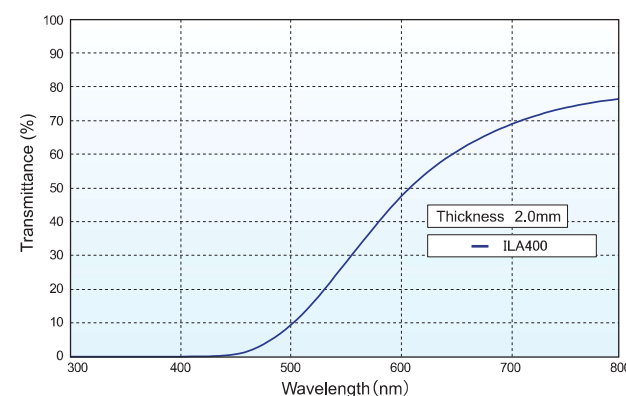
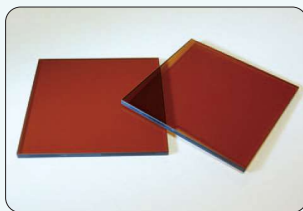
Based on the wavelength of green light range, this filter transmits comparatively narrow wavelength range.



● Light balancing filter (to decrease)

ILA series

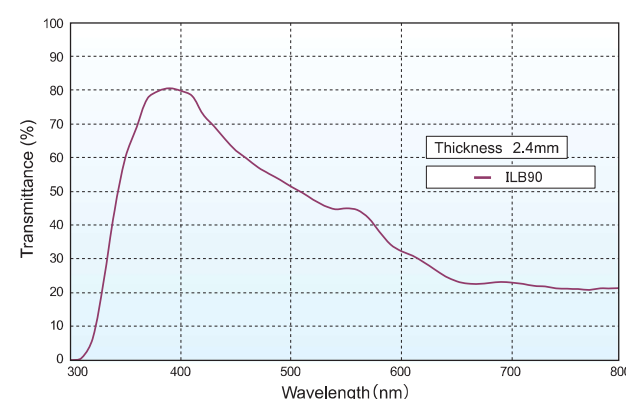
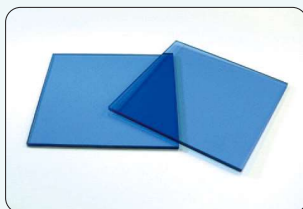
Light-balancing filters (amber) is used to decrease color temperature and enable the photographer to get warmer color



● Light balancing filter (to increase)

ILB series

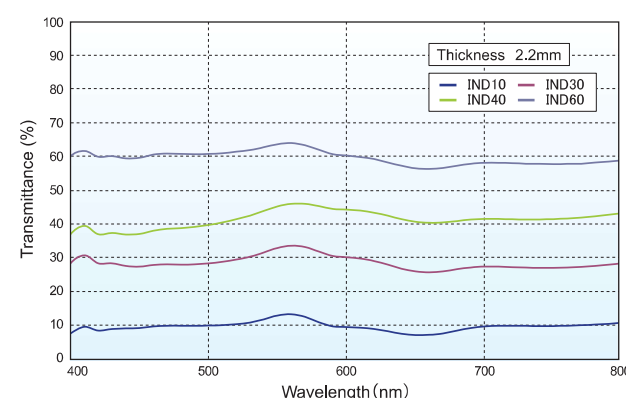
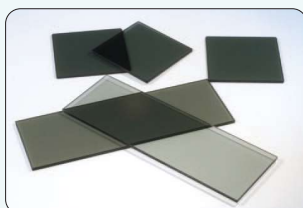
Light-balancing filters (blue) is used to increase color temperature and enable the photographer to make minor adjustments in the color quality of illumination to obtain cooler (bluer)



● Neutral density filter

IND series

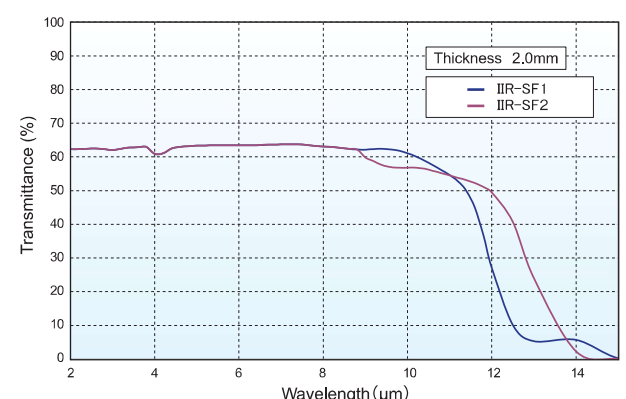
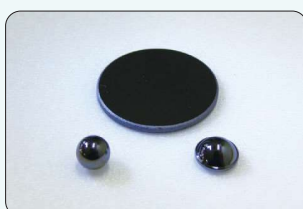
This glass filter is designed to provide an even spectral transmission over the visible spectrum. We can also modify desired densities.



● IR transmitting filter

IIR-SF series

IIR-SF series is the glass consisting mainly of sulfur and designed to transmit between 8 ~ 11 μm in the infrared. This glass is particularly useful for night vision cameras and sensors.



option

Thermal Temper Treatment

Thermal Temper helps to increase mechanical strength and resisting heat.

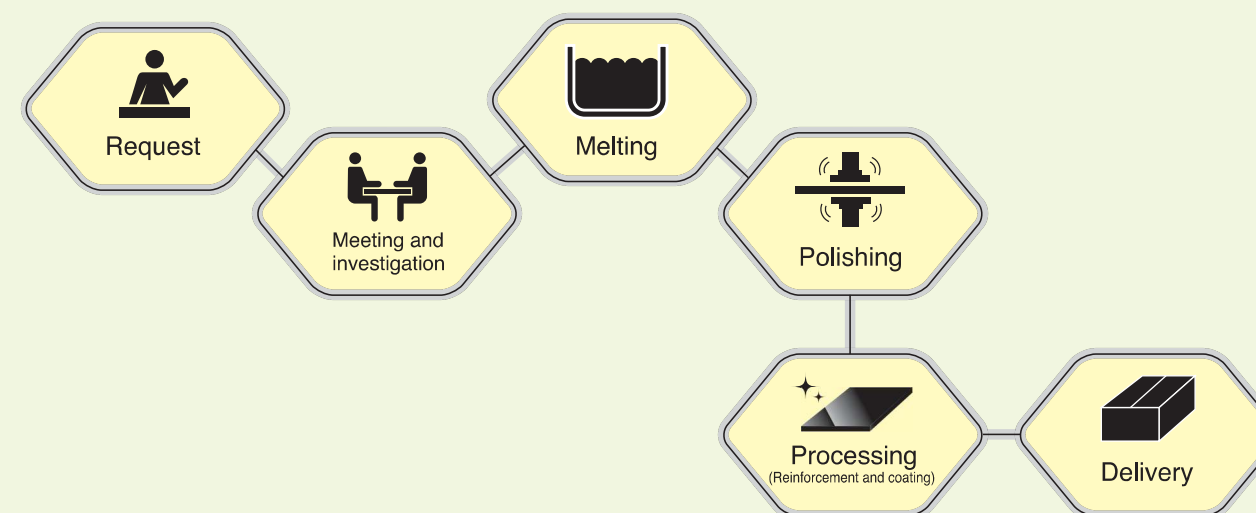
Coating

ISUZU GLASS can offer a variety of high quality coatings like UV-cut, IR-cut, Metal, MAR (Multi anti-reflection) and other optical coating.

Special Order product

ISUZU GLASS can develop new glass filters to your needs that are not listed in the catalog. Please feel free to inquire.

Process



Visit our website for more information.

Data sheet can be downloaded.

www.isuzuglass.com