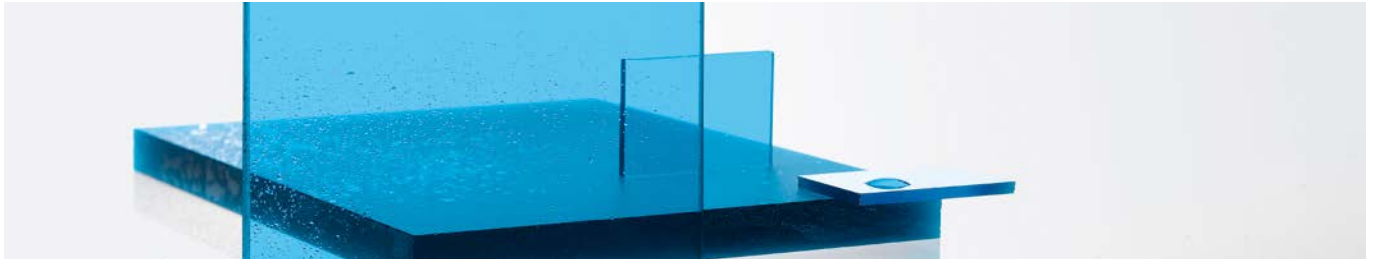


NIR Cutoff Filters / Blue Filter Glass

A product family with two groups that have extraordinary properties



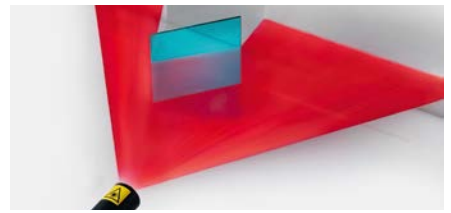
Used in numerous applications, NIR cutoff filters can be found just about everywhere we look in our modern lives. They are equipped to image sensors so that natural colors are produced, and they make digital cameras respond to light as our eyes do. Special NIR cutoff filters are required for any display or operation control when viewed at using a night vision system (NVIS compatible equipment), which are becoming more and more commonly used by police and rescue forces. Depending on the main application, our optical filter glass types are grouped into the **humidity resistant glasses** and the glasses with **high steepness** of the NIR cutoff, respectively.

1. Group – High humidity resistance

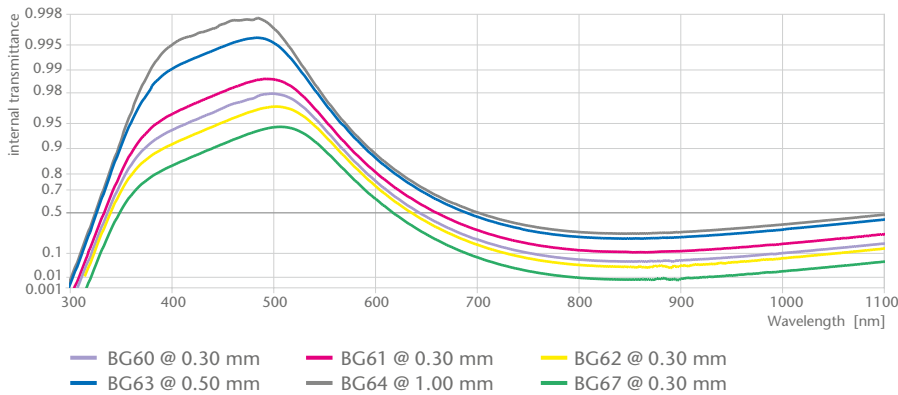
BG60 – BG64, BG67

Designed to perform in difficult environments

SCHOTT's new IR filter glasses, BG60 – BG64 and BG67, have been designed to perform in difficult environments. Equipped with a specified coating, these filters remain completely transparent for more than 1000 hours without any surface corrosion and deliver extraordinary image quality.



NIR Cutoff Filters at different thicknesses



		BG60	BG61	BG62	BG63	BG64	BG67
refractiv index	n_e	1.5396	1.5364	1.5413	1.5337	1.5321	1.5427
	n_d	1.5377	1.5345	1.5394	1.5318	1.5302	1.5405
cutoff wavelength	$\lambda_{0.5}$	633 nm	648 nm	644 nm	614 nm	619 nm	641 nm
at thickness		@ 0.3 mm	@ 0.21 mm	@ 1.5 mm	@ 3 mm	@ 0.145 mm	

Advantages

- Repeatable optical performance due to mass production
- Excellent inner quality, e.g. low striae
- Allows true color imaging
- High NIR absorption at smaller thickness

Applications

- Medical
- Imaging
- Surveillance
- NVIS (night vision) compatible display
- Industrial applications

Forms of Supply

- Polished filters
- Additional coating, framing and assembly available

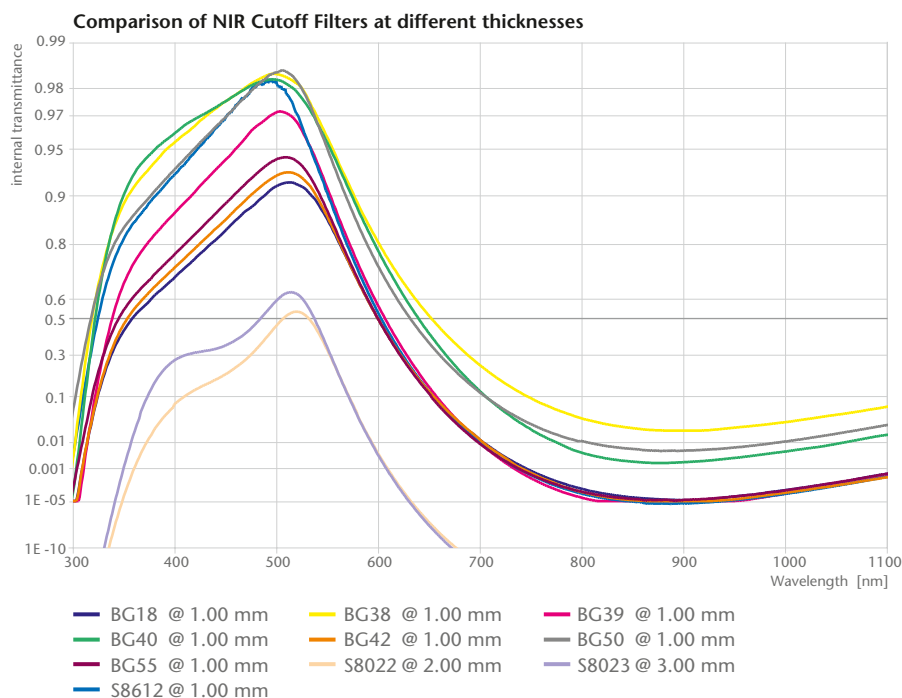


2. Group – High steepness of NIR cutoff

BG18, BG38 – BG42, BG50, BG55, S8022, S8023, S8612

Designed to perform for high-precision optical applications

For decades, these glasses have been popular because of the excellent optical properties they provide. These optical properties include high transmission in addition to high blocking with a very narrow transition range. Furthermore, these glasses are ideal bandpass filters for visual areas when high absorption in the near infrared (NIR) wavelength range is required. The slope of the IR edge is exceptional, and guarantees a sharp distinction between visible light and NIR radiation.



	BG18	BG38	BG39	BG40	BG42	BG50	BG55	S8022	S8023	S8612
cutoff wavelength $\lambda_{0.5}$	595 nm	646 nm	603 nm	635 nm	595 nm	626 nm	596 nm	533 nm	565 nm	599 nm
at thickness	@ 1 mm									



Advantages

- Extraordinarily high transmittance in the visible range
- High NIR absorption
- Excellent inner quality, e.g. low striae
- Allows true color imaging

Applications

- Medical
- Imaging
- Surveillance
- NVIS (night vision)
- Industrial applications

Forms of Supply

- Polished filters
- Additional coating, framing and assembly available



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