



## Just don't see red

### SCHOTT's new filter glass ensures a clear view as well as protection against laser beams

**Mainz (Germany), April 17, 2013** – Infrared lasers are increasingly being used in medicine and industry. In order to protect the eyes from injuries, special filter glass is needed. SCHOTT's 1 mm thin band-pass filter VG20 shows strong absorption in the near infrared (NIR) range. Its outstanding transmittance in the visible spectrum ensures colorfast eyesight, as well.

"By bringing more color into the glass, we have been able to produce a very thin optical filter to keep radiation in the wavelength range from 600 to 1100 nm away from the eye," explains Dr.-Ing. Ralf Biertümpfel, Application Manager Filter Glass at SCHOTT Advanced Optics. "For laser safety eyewear, VG20 offers improved wearing comfort – it is roughly one third lighter than conventional filter glass."

VG20 is extremely transparent in the visible range of the electromagnetic spectrum: It conveys true colors with very little darkening. The cut-off wavelength  $\lambda_{05}$ , at which the glass has a transmittance of 50 percent, is at 565 nm and then drops steeply. From 750 to 1100 nm, the green glass is nearly impenetrable. Regardless of the angle of incidence, the solid-colored glass safely protects from laser beams.

In addition, the filter glass is highly climate-resistant: it stays moisture- and heat-proof, permanently transparent, and corrosion-free for hundreds of hours. For customer-specific applications, the filter properties can be optimized with additional coatings. VG20 is suitable for protection from red and NIR lasers in a wavelength range above 650 nm – for instance in metrology and medical technology.

**SCHOTT AG**  
**LASER World of Photonics**  
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Additional information: [www.schott.com/advanced\\_optics](http://www.schott.com/advanced_optics)

SCHOTT is an international technology group with more than 125 years of experience in the areas of specialty glasses and materials and advanced technologies. SCHOTT ranks number one in the world with many of its products. Its core markets are the household appliance, pharmaceuticals, electronics, optics, solar power, transportation and architecture industries. The company is strongly committed to contributing to its customers' success and making SCHOTT an important part of people's lives with its high-quality products and intelligent solutions. SCHOTT is committed to managing its business in a sustainable manner and supporting its employees, society and the environment. The SCHOTT Group maintains close proximity to its customers with manufacturing and sales units in 35 different countries. Its workforce of around 16,000 employees generated worldwide sales of approximately 2 billion euros for the 2011/2012 fiscal year. SCHOTT AG, with its headquarters in Mainz, Germany, is owned by the Carl Zeiss Foundation.

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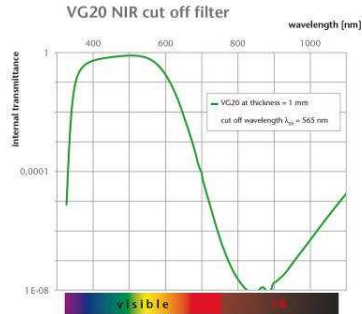


Photo no. 198502: SCHOTT's 1 mm thin band-pass filter VG20 shows strong absorption in the near infrared (NIR). Its outstanding transmittance in the visible spectrum ensures colorfast eyesight. Source: SCHOTT.

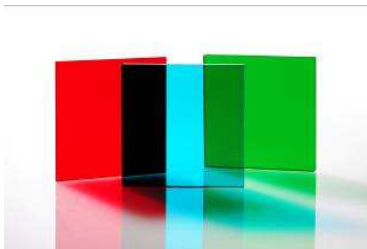


Photo no. 197131: Infrared lasers are increasingly being used in medicine and industry. In order to protect the eyes from injuries, a

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More press pictures can be downloaded at: [www.schott-pictures.net](http://www.schott-pictures.net)

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