



[www.knightoptical.com](http://www.knightoptical.com) | Tel: +1 401 583 7846 | Fax: +1 401 583 7851  
Knight Optical (USA) LLC | 1130 Ten Rod Road, Suite D102 | North Kingsdown RI 02852 USA  
[www.knightoptical.com](http://www.knightoptical.com) | Tel: +44 (0) 1622 859444 | Fax +44 (0) 1622 859555  
Knight Optical (UK) Ltd | Roebuck Business Park | Harrietsham | Kent ME17 1SB UK

## KO | BRINGING QUALITY INTO FOCUS

### IR Interference Shortpass Filters - Heat Shielding

**Knight Optical** can offer [infra-red interference Shortpass filters](#) for use in Heat Shielding.

We supply a range of infra-red interference Shortpass filters for a range of applications. All individually QA checked and metrology tested for quality to ensure parts meet customer specification. Supplied in a range of sizes and shapes with custom coatings tailored to meet your individual applications.

Knight Optical supply precision optical components to customers in Heat Shielding. Infra-red interference Shortpass filters are designed to transmit wavelengths shorter than the “cut-off” of the filter and to block bands above that. In many systems that require heat shielding while still needing visibility a shortpass filter can be used. These can attenuate infrared radiation and allow through visible light, which allows your temperature sensitive equipment to be visible. They can also be paired with a longpass filter to make a bandpass filters.

Due to the coating being deposited using energetic sputtering it makes them very durable and resistant to harsh environmental conditions.

#### Typical specs:

|                                      |  |
|--------------------------------------|--|
| <b>Material:</b>                     | (Fused Silica/Silicon/Germanium)   |
| <b>Diameter &amp; aperture (mm):</b> | 12.5mm ±0.1 (8.5mm aperture)<br>25.0mm ±0.1 (21mm aperture)<br>50.0mm ±0.1 (46mm aperture) |
| <b>Thickness (mm):</b>               | ≤6.1mm +0/-0.1   |
| <b>CWL tolerance (nm):</b>           | ± 20% of FWHM  |
| <b>FWHM tolerance (nm):</b>          | ± 20% of FWHM  |
| <b>Optimum operating temp:</b>       | 23°C   |
| <b>Edge treatment:</b>               | Mounted in black anodized aluminium ring   |
| <b>Surface quality:</b>              | 80/50 Per MIL-0-13830A   |
| <b>Usable temperature limits:</b>    | -50°C to +80°C   |

**All our infra-red interference shortpass filters are fully inspected on their quality in our ISO 9001 certified, state-of-the-art Metrology laboratory**, using our Cary 5000 spectrophotometer. This allows us to work to the highest [QA standards](#) and meet the tolerance specifications on these **precision components**.

[Contact our technical sales team](#) to discover how Knight Optical’s high quality infra-red interference Shortpass filters and superior service can improve your instrumentation and supply chain experience.

UK, Europe, Asia & RoW: E-Mail [info@knightoptical.co.uk](mailto:info@knightoptical.co.uk) Tel +44 (0)1622 859444

USA & Canada: E-Mail [usasales@knightoptical.com](mailto:usasales@knightoptical.com) Tel +001 401-583-7846

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