



Discover how we can improve your
instrumentation and supply chain
experience today!

KO | BRINGING QUALITY INTO FOCUS

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 | Tel: +44 (0) 1622 859444 | Fax +44 (0) 1622 859555
Knight Optical (UK) Ltd | Roebuck Business Park | Harrietsham | Kent ME17 1SB UK

UV Fused Silica Lenses for Flame Detection

Knight Optical can offer [UV Fused Silica Lenses for Flame Detection Applications](#).

UV Fused Silica can be used in Flame Detection Applications, due to its high transmission into the NIR range (approximately <92% avg 400-2000nm) meaning that a clear distinction can be made between different wavelengths of light.

UV FS also has a very low coefficient of thermal expansion $0.55 \times 10^{-6} \text{K}^{-1}$ at 300K) compared to N-BK7 ($7.1 \times 10^{-6} \text{K}^{-1}$), meaning that it can still provide optical performance under high temperature. UV FS also has a high melting point compared to N-BK7, providing further protection for your application in high temperature environments.

UV FS is comparable to N-BK7 or other similar optical glasses in its performance, having a very similar average transmission over the VIS range up to approximately 2000nm and a slightly lower refractive index. The Abbe constants of UV FS are also very similar to that of N-BK7, although slightly higher.

Typical specs:

Material:	UV Grade Fused Silica
Operating Wavelength	587nm
Diameter Tolerance:	+0 / -0.10mm
Centring Tolerance	<5 arc min
Focal Length Tolerance:	$\pm 0.2\text{mm}$ (<10mm) $\pm 2.0\%$ (10mm – 1000mm)
Centre Thickness Tolerance	$\pm 0.2\text{mm}$
Surface Figure	3/ 3 (1)
Surface Quality:	<40-20 Scratch/Dig
Coating:	Optional

All our UV Fused Silica Lenses are fully inspected on their quality in our ISO 9001 certified, state-of-the-art Metrology laboratory, using our Trioptics Optispheric, and Starrett AV300 and Zygo Verifire XPZ. 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 UV FS lenses and superior service can improve your instrumentation and supply chain experience.

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

USA & Canada: E-Mail usales@knightoptical.com Tel +001 401-583-7846

- View our [QA and metrology information](#)
- Watch our [Corporate Video](#)
- [View Our Corporate Brochure](#)