



[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

### Plane Mirrors for Spectrometers

**Knight Optical** can offer you stock and custom mirrors [Plane Mirrors \(general,  \$\lambda/1\$  and  \$\lambda/4\$](#)  for use in Spectrometers, in a range of materials such as BK7 or equivalent, Quartz, UV Fused Silica and many more. These are customisable to size and coating depending on what you are trying to achieve.

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.

The mirrors help produce high quality signals and can be coated with a variety of coatings to ensure that the perfect quality image in the wavelength you require is achieved:

Plane mirrors are used to transmit the signal from the light source to the receiver in the spectrometer, the higher the specifications of the mirror the better the signal for it to produce a better transmission or reflection curve that it relatively to the sample.

Knight Optical can provide plane mirrors either from stock or custom. Send over the details of your requirement and we can see how we can help.

#### Typical specs:

<b>Material:</b>	Soda lime float glass, white plate, BK7 or equivalent
<b>Diameter Tolerance:</b>	+0/-0.2mm
<b>Lengths/ width:</b>	$\pm 0.3\text{mm}$ ( $\leq 100\text{mm}$ ), $\pm 0.5\text{mm}$ ( $> 100\text{mm}$ )
<b>Thickness:</b>	$\pm 0.25\text{mm}$
<b>Surface Quality:</b>	<60-40 scratch/dig for general purpose, <40-20 scratch/dig for $\lambda/4$
<b>Flatness:</b>	$\lambda/4$ for polished substrates Stock sheet substrates. <b>1.1mmthk:</b> $1\lambda$ over 10mm dia. <b>3/6mmthk:</b> $2\lambda$ over 25mm dia.
<b>Parallelism:</b>	<3 arcmin
<b>Coatings:</b>	<ul style="list-style-type: none"><li>• Enhanced aluminium 94%R for visible applications.</li><li>• 99.9% dielectric for laser use in visible applications.</li><li>• UV aluminium for UV applications down to 180nm.</li><li>• 98.5% dielectric for laser use in the NIR applications.</li><li>• Ion plated silver for NIR-2000nm applications.</li><li>• Protected gold for 750nm to far infra-red applications</li></ul>

**All our mirrors are checked for quality in our state-of-the-art** Metrology laboratory using our Fisba Interferometer, Starrett AV300 Video Imaging Device and Zygo Verifire XPZ Interferometer System, allowing 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 Mirrors 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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