

**Europe, UK, Asia and RoW**

Knight Optical (UK) Ltd  
 Roebuck Business Park  
 Harrietsham  
 Kent, ME17 1AB

contact@knightoptical.co.uk

**USA and Canada**

Knight Optical (USA) LLC  
 1130 Ten Rod Road  
 Suite D102  
 North Kingstown  
 Rhode Island 02852

usasales@knightoptical.com

Our [general-purpose grade of general purpose front surface mirrors](#) are manufactured from standard coated sheet material. These general purpose grades of front surface mirrors are available with a multitude of coatings for an extensive range of scientific instrument and lighting applications. Our stock range of front surface plane mirrors are made from good quality float glass and are generally available in thicknesses of 1mm, 3mm and 6mm thk as standard.

We stock these general purpose plane mirror front surface in a wide range of coatings to meet most applications:

- Enhanced aluminium 94%R for visible applications.
- >98% dielectric for laser use in visible applications.
- UV aluminium for UV applications down to 180nm.
- 98.5% dielectric for laser use in the NIR applications.
- Ion plated silver for NIR-2000nm applications.
- Protected gold for 750nm to far infra-red applications.

Stock general purpose grade mirrors can also be edges to smaller diameters and other shapes at short notice. These mirrors are generally stocked in large sheets so larger sizes up to 1100x940mm are available.

Our quality general purpose grade mirrors are typically used in lighting, illumination and projector applications. Our range of thin 1mm thk front surface mirrors are light in weight and therefore useful in scanning applications. Other usages of plane front surface mirrors are periscopes and telescopes.

<b>Material:</b>	<a href="#">Soda lime float glass</a>
<b>Diameter:</b>	+0/-0.2 mm
<b>Length/width:</b>	±0.3mm (≤100mm) ±0.5mm (>100mm)
<b>Thickness:</b>	±0.25mm
<b>Surface quality:</b>	<a href="#">&lt;60:40 scratch/dig</a>
<b>Flatness:</b>	
<b>1.1mmthk</b>	1λ over 10mm dia.
<b>3/6mmthk</b>	2λ over 25mm dia.
<b>Parallelism:</b>	<3 arcmin

## See also:

[Precision  \$\lambda/4\$  front surface mirrors](#)

[Precision  \$\lambda/10\$  front surface mirrors](#)

[Front surface mirrors \(1 \$\lambda\$  over 25mm\)](#)

## Options Available

- Edging of stock mirrors to smaller diameters.
- Stock mirrors can be machined to custom square or rectangular apertures or bespoke designs.
- Various mounting options.
- Larger 99% dielectric 145x100mm substrates are available from stock for custom larger sizes in 1mm, 3mm and 6mm thk.
- Larger 94% enhanced aluminium sheets are available from stock for custom sizes.
- 3mm and 6mm are available as 1100x940mm, 1mm and 2mm are available as 635x400mm sheets.

## Mirror Coatings:-

### Mirror coatings:

#### UV applications:

[Al/MgF<sub>2</sub>, R.avg>85%@180-650nm, AOI= 0°-45°](#)

#### Visible applications:

[Enhanced Al, R.avg>94%@450-650nm, AOI=0°-45°](#)

[All-Dielectric, R.avg>98%@450-700nm, AOI=0°-45°](#)

#### NIR applications:

[All-Dielectric, R.avg>98%@700-1064nm, AOI=0°-45°](#)

[Ion-Plated Silver, R.avg>96%@450-2000nm, AOI=0°-45°](#)

#### NIR/ FIR applications:

[Protected Gold, R.avg>97%@750-FAR IR, AOI=0°-45°](#)

Can't quite find what you're looking for? Then please [contact](#) our experienced Technical Sales Team and they can provide a custom quotation.

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

**Our General purpose front surface mirrors are checked for quality in our state-of-the-art Metrology laboratory allowing us to work to the highest [QA standards](#) and meet the tolerance specifications on these **precision components**.**

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