

## KO | BRINGING QUALITY INTO FOCUS

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### Plane Mirrors for 3D Mapping

**Knight Optical** can offer you [Plane Mirrors \(general,  \$\lambda/1\$  and  \$\lambda/4\$ \)](#), for use within 3D Mapping Applications in a range of materials such as Soda-lime float glass, white float glass, and BK7 glass.

Plane mirrors also known as front surface mirrors or first surface mirrors are used within 3D Mapping Applications. As stock we hold a number of general purpose,  $\lambda/1$  and  $\lambda/4$  with a range of up to 6 types of coatings such as Enhanced Aluminium, Al/SiO<sub>2</sub> and Al/MgF<sub>2</sub>. Our general purpose grade mirrors are made from good quality float glass and generally available in thicknesses of 1mm, 3mm and 6mm as standard.

How our mirrors are used within 3D Mapping, is they are used as a sender and receiver of a laser beam that will take a reading of a specific surface, and from that reading it can create a 3D map of the surface that is has read.

#### Typical specs:

<b>Material:</b>	Soda lime float glass, BK7 or equivalent
<b>Diameter Tolerance:</b>	+0/-0.2mm
<b>Lengths/ width:</b>	±0.3mm (≤100mm), ±0.5mm (>100mm)
<b>Thickness:</b>	±0.25mm
<b>Surface Quality:</b>	<60-40 scratch/dig for general purpose, <40-20 scratch/dig for $\lambda/4$
<b>Flatness:</b>	
<b>1.1mmthk:</b>	1 $\lambda$ over 10mm dia.
<b>3/6mmthk:</b>	2 $\lambda$ over 25mm dia.
<b>Parallelism:</b>	<3 arcmin

**All our Flat Mirrors are fully inspected on their quality in our ISO 9001 certified, state-of-the-art Metrology laboratory**, our ZYGO interferometer and Radius Slide tests for the form error, irregularity and TWE on flat and spherical surfaces, and Starrett AV300 provides video imaging for non-contact testing on small dimensions. 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 Plane Mirrors and superior service can improve your instrumentation and supply chain experience.

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- View our [QA and metrology information](#)

- Watch our [Corporate Video](#)
- [View Our Corporate Brochure](#)