Substrates & Windows

- **Laser Grade Optical Flats**, flat, spherical and wedged
- **Sapphire Windows** resist scratches and transmit from the visible to 2 microns
- **Fused Silica Windows** offer the broadest transmission range available
- **Glass Windows** are an ideal choice for high quality visible applications
- **Master Flats** are stable, precision optical surface reference standards

Windows are used to create a physical barrier between environments such as air to water, vacuum to air, or one gas to another. The ideal window allows an optical beam to pass from one medium to the next without making any change to the beam. It does not change the wavelength distribution of the beam, nor does it change the transmitted wavefront or scatter any of the light out of the beam.

The ideal window allows the optical beam to pass unimpeded and unchanged. In order to come close to this ideal a high quality window is required. Windows need high transmittance, low wavefront distortion and low scatter. At the same time they need to be durable and strong.

Three different materials are available - optical quality crystal sapphire, Ultra-Violet transmitting synthetic fused silica and BK7 grade A optical glass. In each case, only homogeneous and inclusion free material is used.

Surfaces are polished to 40-20 and held parallel to 5arcsec or 3arcmin. Flatness of $\lambda/10$ is recommended but some less expensive $\lambda/4$ glass windows are offered for situations where flatness is not so critical.

A range of standard circular, square and rectangular shapes are listed but a wide variety of other shapes and sizes can be supplied to order.

ORDERING
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TECHNICAL SUPPORT
(949) 851-5881
FAX (949) 851-5058
E-MAIL
sales@optosigma.com
WEB
www.optosigma.com