

## Master Flats

- Precision optical flats
- Reference surfaces to  $\lambda/20$
- Standard diameters from 30mm to 150mm

These are precision polished, uncoated optical flats of fused silica or Zerodur®. They are used as optical reference surfaces in the laboratory and on the production floor. The Zerodur® substrates exhibit essentially a zero coefficient of thermal expansion over a fairly wide ambient temperature range and are therefore the most stable substrate available. However, the thermal expansion of fused silica is also quite low. If these flats are going to be used in a stable thermal environment then, fused silica will be adequate.

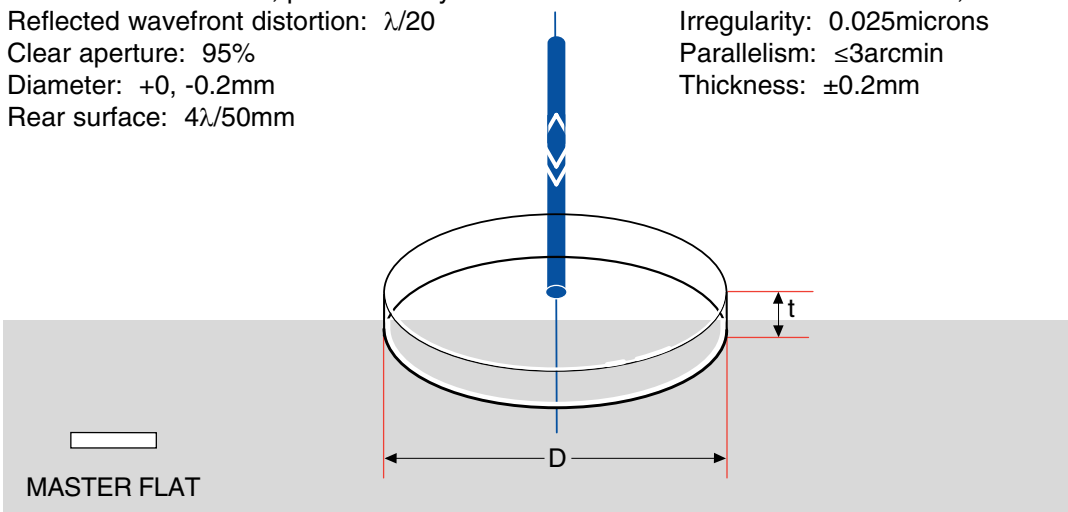
Each is supplied in a protective box and is provided with an interferogram showing the exact measured flatness of the master surface.

They are polished flat to  $\lambda/20$  @633nm and parallel within 3arcmin.

## Specifications & Tolerances

Surface flatness:  $\lambda/20$ , peak to valley  
 Reflected wavefront distortion:  $\lambda/20$   
 Clear aperture: 95%  
 Diameter: +0, -0.2mm  
 Rear surface:  $4\lambda/50$ mm

Surface flatness:  $\lambda/100$ , RMS  
 Irregularity: 0.025microns  
 Parallelism:  $\leq 3$ arcmin  
 Thickness:  $\pm 0.2$ mm



## Master Flats

Diameter, D (Inches)	Diameter, D (mm)	Thickness, t (mm)	Material	Price	PART NUMBER
1.18	30.00	10.00	fused silica		099-0440
1.97	50.00	10.00	fused silica		099-0450
3.94	100.00	17.00	Zerodur®		099-0460
5.91	150.00	25.00	Zerodur®		099-0470

Zerodur® is a registered trademark of Schott Glass Technologies.

Spherical Lenses

Cylindrical Lenses

Lens Kits

Achromatic Doublets

Multi-Element

Micro Optics

Mirrors

Prisms

Substrates &amp; Windows

Beamsplitters

Polarizers

Filter &amp; Apertures

*We also carry an extensive range of uncoated plano-plano substrates that are ideal for many window applications. Because they are in production for other requirements their prices are very reasonable. Please call if you need only one or two special windows. And if your needs run to larger OEM quantities we will be pleased to competitively bid to your requirements.*

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