



Optical Flats

Optical flats are mainly used for the measurement of the surface flatness of polished surface for checking the flatness using monochromatic light source.

The main applications of optical flats are listed below:

Calibration of flatness of various optical surface.

- Inspection of gauge blocks
- Testing of filters, mirrors, and prisms
- Spectrophotometry

It is mainly used in automobile, aerospace optical and in calibration labs. In optical industry, it is used to check the flatness of a surface such as windows, prisms, etc. The surface flatness requirement varies to application to application. Monochromatic light source such as sodium vapour lamp which has a single wavelength is used to create sharp contrast fringe pattern to check the flatness.

Optical flats are available in optical material such as N-BK7 equivalent glasses. Fused Quartz Optical Flats quote will be provided against specific requirement.

Our optical Flats are accompanied by

- Flatness Inspection Report using fringe analysis software

Our Test equipment's:

- Laser Fizeau Interferometer
- Reference optical Flat ($\lambda/20$)
- Fringe analysis software
- According US MIL STD

Single Side



Double Side





Single Side Optical Flats



Specifications :

Material : BK7 or Any Equivalent

Angle Tolerance : < 15 minutes

Bevel : 0.5mm x 45 deg

Clear Aperture : > 95%

Surface Quality : 80-50 Scratch & dig

Surface Accuracy : $\lambda/4$, $\lambda/6$, $\lambda/10$

Certification :

Our optical Flats are certified using Fringe Analysis Software with reference certified optical flat ($\lambda/20$).

Part Number	Diameter (mm)	Thickness (mm)	Surface Flatness	Diameter Tolerance	Thickness Tolerance
OFS-50-4	50	15	$\lambda/4$	$\pm 1\text{mm}$	$\pm 1\text{mm}$
OFS-75-4	75	15	$\lambda/4$	$\pm 1\text{mm}$	$\pm 1\text{mm}$
OFS-100-4	100	25	$\lambda/4$	$\pm 1\text{mm}$	$\pm 1\text{mm}$
OFS-125-4	125	30	$\lambda/4$	$\pm 1\text{mm}$	$\pm 1\text{mm}$
OFS-150-4	150	30	$\lambda/4$	$\pm 1\text{mm}$	$\pm 1\text{mm}$
OFS-200-4	200	35	$\lambda/4$	$\pm 2\text{mm}$	$\pm 2\text{mm}$
OFS-250-4	250	38	$\lambda/4$	$\pm 2\text{mm}$	$\pm 2\text{mm}$
OFS-50-6	50	15	$\lambda/6$	$\pm 1\text{mm}$	$\pm 1\text{mm}$
OFS-75-6	75	15	$\lambda/6$	$\pm 1\text{mm}$	$\pm 1\text{mm}$
OFS-100-6	100	25	$\lambda/6$	$\pm 1\text{mm}$	$\pm 1\text{mm}$
OFS-125-6	125	30	$\lambda/6$	$\pm 1\text{mm}$	$\pm 1\text{mm}$
OFS-150-6	150	30	$\lambda/6$	$\pm 1\text{mm}$	$\pm 1\text{mm}$
OFS-200-6	200	35	$\lambda/6$	$\pm 2\text{mm}$	$\pm 2\text{mm}$
OFS-250-6	250	38	$\lambda/6$	$\pm 2\text{mm}$	$\pm 2\text{mm}$
OFS-50-10	50	15	$\lambda/10$	$\pm 1\text{mm}$	$\pm 1\text{mm}$
OFS-75-10	75	15	$\lambda/10$	$\pm 1\text{mm}$	$\pm 1\text{mm}$
OFS-100-10	100	25	$\lambda/10$	$\pm 1\text{mm}$	$\pm 1\text{mm}$
OFS-125-10	125	30	$\lambda/10$	$\pm 1\text{mm}$	$\pm 1\text{mm}$
OFS-150-10	150	30	$\lambda/10$	$\pm 1\text{mm}$	$\pm 1\text{mm}$
OFS-200-10	200	35	$\lambda/10$	$\pm 2\text{mm}$	$\pm 2\text{mm}$
OFS-250-10	250	38	$\lambda/10$	$\pm 2\text{mm}$	$\pm 2\text{mm}$



Double Side Optical Flats



Specifications :

Material : BK7 or Any Equivalent

Angle Tolerance : < 15 minutes

Bevel : 0.5mm x 45 deg

Clear Aperture : > 95%

Surface Quality : 80-50 Scratch & dig

Surface Accuracy : $\lambda/4$, $\lambda/6$, $\lambda/10$

Certification :

Our optical Flats are certified using Fringe Analysis Software with reference certified optical flats ($\lambda / 20$).

Part Number	Diameter (mm)	Thickness (mm)	Surface Flatness	Diameter Tolerance	Thickness Tolerance
OFD-50-4	50	15	$\lambda/4$	$\pm 1\text{mm}$	$\pm 1\text{mm}$
OFD-75-4	75	15	$\lambda/4$	$\pm 1\text{mm}$	$\pm 1\text{mm}$
OFD-100-4	100	25	$\lambda/4$	$\pm 1\text{mm}$	$\pm 1\text{mm}$
OFD-125-4	125	30	$\lambda/4$	$\pm 1\text{mm}$	$\pm 1\text{mm}$
OFD-150-4	150	30	$\lambda/4$	$\pm 1\text{mm}$	$\pm 1\text{mm}$
OFD-200-4	200	35	$\lambda/4$	$\pm 2\text{mm}$	$\pm 2\text{mm}$
OFD-250-4	250	38	$\lambda/4$	$\pm 2\text{mm}$	$\pm 2\text{mm}$
OFD-50-6	50	15	$\lambda/6$	$\pm 1\text{mm}$	$\pm 1\text{mm}$
OFD-75-6	75	15	$\lambda/6$	$\pm 1\text{mm}$	$\pm 1\text{mm}$
OFD-100-6	100	25	$\lambda/6$	$\pm 1\text{mm}$	$\pm 1\text{mm}$
OFD-125-6	125	30	$\lambda/6$	$\pm 1\text{mm}$	$\pm 1\text{mm}$
OFD-150-6	150	30	$\lambda/6$	$\pm 1\text{mm}$	$\pm 1\text{mm}$
OFD-200-6	200	35	$\lambda/6$	$\pm 2\text{mm}$	$\pm 2\text{mm}$
OFD250-6	250	38	$\lambda/6$	$\pm 2\text{mm}$	$\pm 2\text{mm}$
OFD-50-10	50	15	$\lambda/10$	$\pm 1\text{mm}$	$\pm 1\text{mm}$
OFD75-10	75	15	$\lambda/10$	$\pm 1\text{mm}$	$\pm 1\text{mm}$
OFD-100-10	100	25	$\lambda/10$	$\pm 1\text{mm}$	$\pm 1\text{mm}$
OFD-125-10	125	30	$\lambda/10$	$\pm 1\text{mm}$	$\pm 1\text{mm}$
OFD-150-10	150	30	$\lambda/10$	$\pm 1\text{mm}$	$\pm 1\text{mm}$
OFD-200-10	200	35	$\lambda/10$	$\pm 2\text{mm}$	$\pm 2\text{mm}$
OFD-250-10	250	38	$\lambda/10$	$\pm 2\text{mm}$	$\pm 2\text{mm}$