

Kreischer Optics, Ltd.
Test Plate Pricing
Revised May 2017

Specifications: Master test plates are made as convex/concave pairs matched to 1 fringe of optical power. Radii up to 1,200mm are measured using a distance measuring interferometer to a fraction of a wave of optical power to the absolute radius. Radii over 1,200mm are measured with a precision spherometer to an accuracy of 2 fringes of optical power over the diameter of the spherometer ring being used; therefore, larger diameter test plates can be measured more accurately.

For short radii, the convex test plate may be made as a hyperhemisphere, which has the advantage that the ball diameter can be easily measured with a micrometer for a quick but accurate check of the radius.

Tolerances: Standard surface irregularity, 1/10 wave or better. Tighter or looser irregularity tolerances will be quoted upon request. Standard radius tolerance, 1/20 of 1% for radii between 5 and 750 mm (provided the ratio of diameter to radius is reasonably large). Much tighter radius tolerances than this can normally be achieved at little or no additional cost. Certification, traceable to NIST, included with all master test glasses. Surface quality (scratch-dig) is 120-80 where the scratch width is specified in microns, except that light grey, under inspection method 4.2.2.1 of MIL-013830A, is acceptable.

Hyperhemispheres (Concave element to approx. 80% of a hemisphere)

Radius	Price per Set
2.000 to 2.999 mm	\$735.00
3.000 to 19.999 mm	\$590.00
20.000 to 24.999 mm	\$690.00
25.000 to 30.000 mm	\$800.00

Other Master Test Glass Pairs

Diameter (inches)	Radius (mm)	Price per Set
1.75 and less	25.00 to 1200mm	\$ 670.00
2.00 and 2.25	40.00 to 1200mm	\$ 710.00
2.50 and 2.75	60.00 to 1200mm	\$ 770.00
3.00 and 3.25	80.00 to 1200mm	\$ 835.00
3.50	90.00 to 1200mm	\$ 925.00
4.00	110.0 to 1200mm	\$1,050.00
4.25	150.0 to 1200mm	\$1,220.00
5.00	160.0 to 1200mm	\$1,415.00
5.25	200.0 to 1200mm	\$1,535.00
6.00	220.0 to 1200mm	\$1,900.00
8.00	400 to 1200mm	\$3,575.00

Working Test Plates

("Working" test plates are single test plates which are matched to an existing master or made along with a set of masters.)

Tolerances: Production test plates are pitch polished to 1/10 wave regularity, with radius matched to 1 fringe fit to the master test plate. Tighter or looser tolerances will be quoted upon request.

Prices: The first price column is for a single test plate when purchased with a set of masters. The second price column is for test plates made to your master. Discount 10% on each additional test plate of the same radius.

Diameter (Inches)	Price Each (If made along with masters of the same radius)	Price Each (If made to match your existing master or a master from our inventory)
1.75 and less	\$285.00	\$ 385.00
2.00 and 2.25	\$305.00	\$ 405.00
2.50 and 2.75	\$330.00	\$ 445.00
3.00 and 3.25	\$375.00	\$ 475.00
3.50	\$400.00	\$ 520.00
4.00	\$470.00	\$ 600.00
5.00	\$616.00	\$ 805.00
6.00	\$845.00	\$1,070.00