

FOR HIGH POWER LASER MIRRORS

Ultiquest Technology offers dielectric mirrors which designs are much more resistant to laser damage than typical mirrors and are suitable for use with high power laser systems.

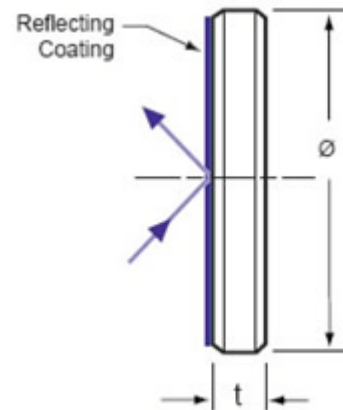
They are manufactured using all dielectric multi-layer coatings of alternating high and low index layers. These are specifically designed for use at 45 or 0 degrees angle of incidence.

Standard Specifications:

Optical Material:	BK7, Fused Silica
Dimension Tolerance:	+0.0,-0.15mm
Clear Aperture:	>90%
Angular Tolerance:	±30 arc minutes
Surface Quality:	20-10 scratch and dig
Wavefront Distortion:	$\lambda/10$ at 632.8nm
Bevel:	<0.25mm X 45

Coating Specifications:

Technology:	Electron Beam Multilayer Dielectric
Adhesion & Durability:	Per MIL-C-675A, Insoluble in lab solvent
Clear Aperture:	> 85% of diameter central
Damage Threshold:	5 J/cm ² , 8 nsec pulse, 1064nm typical
Angle of Incidence:	45 or 0 Degrees



Standard For High Power Laser Mirrors:

Wavelength(nm)	Optical Material	AOI (°)	Reflectance % (s+p)/2	Product Number		
				D12.7x3mm	D25.4x6mm	D50.8x8mm
355	Fused Silica	0°	>99	UQT-HPMF0101	UQT-HPMF0201	UQT-HPMF0301
355	Fused Silica	45°	>99	UQT-HPMF0102	UQT-HPMF0202	UQT-HPMF0302
532	BK7	0°	>99	UQT-HPMB0103	UQT-HPMB0203	UQT-HPMB0303
532	BK7	45°	>99	UQT-HPMB0104	UQT-HPMB0204	UQT-HPMB0304
532	Fused Silica	0°	>99	UQT-HPMF0105	UQT-HPMF0205	UQT-HPMF0305
532	Fused Silica	45°	>99	UQT-HPMF0106	UQT-HPMF0206	UQT-HPMF0306
1064	BK7	0°	>99	UQT-HPMB0107	UQT-HPMB0207	UQT-HPMB0307
1064	BK7	45°	>99	UQT-HPMB0108	UQT-HPMB0208	UQT-HPMB0308

Please Contact [ultiQuest](#) for other dimensions in prototype and production quantities.

NOTES!

- ➔ Reflectance of dielectric mirrors vary according to the polarization of the input beams. S-polarization exhibits a higher reflectance and a wider reflective bandwidth than P-polarization.
- ➔ The coated surface of the mirror that rear surface is polished is indicated with an arrow on the side of substrate.
- ➔ Reflectance of laser line mirrors are different according to the polarization of input beams. S-polarization has the high reflectance and the wide reflective bandwidth compared with p-polarization. The reflectance in the specifications list

is that of random polarization or (p-polarization reflectance + s-polarization reflectance) / 2.

- ➔ The reflectance curves are based on actual measurements and may be different with production lots.
- ➔ The surface flatness is the reflected wavefront distortion of the surface before coating.
- ➔ Be sure to wear laser safety goggles when checking optical path and adjusting optical axis.