BROADBAND LOW GDD ULTRAFAST MIRRORS

Features

- High reflectivity and low group delay dispersion in broad region centered at 800 nm
- Rs > 99% @ 700 – 930 nm, |GDDs| < 30 fs² @ 700 – 930 nm
- Rp > 99% @ 730 – 870 nm, |GDDp| < 30 fs² @ 730 – 870 nm
- R > 99% @ 720 – 880 nm, |GDD| < 30 fs² @ 720 – 880 nm

Specifications

Coating	Hard Dielectric High Reflection or Ion Beam Sputtering
Angle of Incidence	0 or 45±3°
Designed for average polarization	R=(Rs+Rp)/2
Laser Damage Threshold	>100 mJ/cm², 50 fsec pulse, 50 Hz, 800 nm typical

Substrate

Material	UV grade Fused Silica or BK7 glas
S1 Surface Flatness	λ/10 at 633 nm
S1 Surface Quality	20 –10 scratch & dig (MIL-PRF-13830B)
S2 Surface Quality	Commercial polish
Diameter Tolerance	+0.00 mm; -0.12 mm
Thickness Tolerance	±0.25 mm
Wedge	< 3 min
Chamfer	0.3 mm at 45° typical

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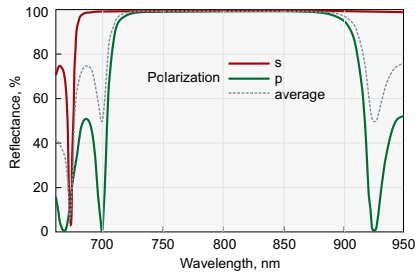

HR>99% @ 720-880 nm, AOI=45°

Wavelength, nm	Diameter, mm	Thickness, mm	AOI = 0°			AOI = 45°		
			R, % (s+p)/2	Catalogue number	Price, EUR	R, % (s+p)/2	Catalogue number	Price, EUR
Substrate material: BK7 grade A								
720-880	12.7	3.0	99.0	071-7288-i0	103	99.0	071-7288	103
720-880	12.7	6.0	99.0	071-7288T6-i0	103	99.0	071-7288T6	103
720-880	25.4	6.0	99.0	072-7288-i0	125	99.0	072-7288	125
720-880	38.1	8.0	99.0	074-7288-i0	234	99.0	074-7288	234
720-880	50.8	8.0	99.0	075-7288-i0	264	99.0	075-7288	264
720-880	76.2	12.7	99.0	077-7288-i0	474	99.0	077-7288	474
720-880	101.6	15.0	99.0	078-7288-i0	648	99.0	078-7288	648
Substrate material: UV grade Fused Silica								
720-880	12.7	3.0	99.0	081-7288-i0	115	99.0	081-7288	115
720-880	12.7	6.0	99.0	081-7288T6-i0	115	99.0	081-7288T6	115
720-880	25.4	6.0	99.0	082-7288-i0	155	99.0	082-7288	155
720-880	38.1	8.0	99.0	084-7288-i0	270	99.0	084-7288	270
720-880	50.8	8.0	99.0	085-7288-i0	306	99.0	085-7288	306
720-880	76.2	12.7	99.0	087-7288-i0	552	99.0	087-7288	552
720-880	101.6	15.0	99.0	088-7288-i0	734	99.0	088-7288	734

HIGH POWER IBS COATED LASER MIRRORS

Substrate

Material	UV grade fused silica
S1 Surface Flatness	λ/10 at 633 nm
S1 Surface Quality	20 – 10 scratch & dig (MIL-PRF-13830B)
S2 Surface Quality	Commercial polish
Diameter Tolerance	+0.00 mm / -0.12 mm
Thickness Tolerance	±0.25 mm
Wedge	< 3 min
Chamfer	0.3 mm at 45° typical

Coating

Technology	Ion Beam Sputtering (IBS)
Adhesion and Durability	Per MIL-C-675A, Insoluble in lab solvents
Clear Aperture	Exceeds central 85% of diameter
Coated Surface Flatness	λ/10 at 633 nm over clear aperture
Group Delay Dispersion	< 30 fs²