LASER REAR MIRRORS

High reflectivity (R>99.8%) dielectric coatings with high laser damage threshold are applied on laser rear mirrors. UV FS substrates are recommended for high power laser applications.

Back side can be AR coated to avoid back reflection from second surface on request.

Coating

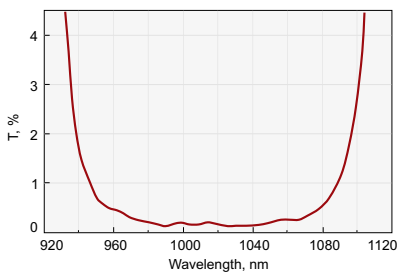
Technology	Electron beam multilayer dielectric
Adhesion and Durability	Per MIL-C-675A. Insoluble in lab solvents
Clear Aperture	Exceeds central 85% of diameter
Angle of Incidence	0 – 8° (normal)
Coating	Hard dielectric high reflection: R>99.7% at 800 nm and 1030 nm R>99% at 720 – 880 nm
Laser Damage Threshold	>100 mJ/cm^2, 50 fsec pulse, 50 Hz, 800 nm typical

Substrate

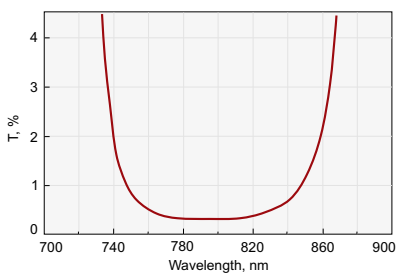
Material	UV grade Fused Silica or BK7 glass
S1 Surface Flatness	λ/10 at 633 nm
S1 Surface Quality	20 –10 scratch & dig (MIL-PRF-13830B)
S2 Surface Quality	Commercial polish
Diameter Tolerance	+0.00 mm; -0.12 mm
Thickness Tolerance	±0.25
Chamfer	0.3 mm at 45° typical

Wavelength, nm	Substrate type	Radius, mm	Substrate material BK7				Substrate material UVFS			
			Ø25.4×6 mm		Ø50.8×10 mm		Ø25.4×6 mm		Ø50.8×10 mm	
			Catalogue number	Price, EUR	Catalogue number	Price, EUR	Catalogue number	Price, EUR	Catalogue number	Price, EUR
1030±30	Plano-plano	-∞	032-1030-i0	86	035-1030-i0 *	127	042-1030-i0	104	045-1030-i0 *	194
1030±30	Plano-concave	-50	012-8005	114	015-8005	167	022-8005	137	025-8005	240
1030±30	Plano-concave	-100	012-8010	114	015-8010	167	022-8010	137	025-8010	240
1030±30	Plano-concave	-150	012-8015	114	015-8015	167	022-8015	137	025-8015	240
1030±30	Plano-concave	-200	012-8020	114	015-8020	167	022-8020	137	025-8020	240
1030±30	Plano-concave	-250	012-8025	114	015-8025	167	022-8025	137	025-8025	240
1030±30	Plano-concave	-500	012-8050	114	015-8050	167	022-8050	137	025-8050	240
1030±30	Plano-concave	-1000	012-8100	114	015-8100	167	022-8100	137	025-8100	240
1030±30	Plano-concave	-2000	012-8200	114	015-8200	167	022-8200	137	025-8200	240
1030±30	Plano-concave	-2500	012-8250	114	015-8250	167	022-8250	137	025-8250	240
1030±30	Plano-concave	-4000	012-8400	114	015-8400	167	022-8400	137	025-8400	240
1030±30	Plano-concave	-5000	012-8500	114	015-8500	167	022-8500	137	025-8500	240
1030±30	Plano-convex	+100	012-9010	118	015-9010	178	022-9010	141	025-9010	252
1030±30	Plano-convex	+200	012-9020	118	015-9020	178	022-9020	141	025-9020	252
1030±30	Plano-convex	+500	012-9050	118	015-9050	178	022-9050	141	025-9050	252
1030±30	Plano-convex	+1000	012-9100	118	015-9100	178	022-9100	141	025-9100	252
1030±30	Plano-convex	+2000	012-9200	118	015-9200	178	022-9200	141	025-9200	252
1030±30	Plano-convex	+4000	012-9400	118	015-9400	178	022-9400	141	025-9400	252

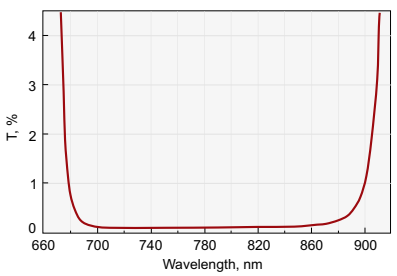
* Thickness of plano-plano rear mirrors of Ø50.8 is 8 mm.



HR>99.7% @ 1030±30 nm, AOI=0°



HR>99.7% @ 800±20 nm, AOI=0°



HR>99.0% @ 720 – 880 nm, AOI=0°

Wavelength, nm	Substrate type	Radius, mm	Substrate material BK7				Substrate material UVFS			
			Ø25.4×6 mm		Ø50.8×10 mm		Ø25.4×6 mm		Ø50.8×10 mm	
			Catalogue number	Price, EUR	Catalogue number	Price, EUR	Catalogue number	Price, EUR	Catalogue number	Price, EUR
800±30	Plano-plano	-∞	032-0800-i0	98	035-0800-i0 *	153	042-0800-i0	112	045-0800-i0 *	208
800±30	Plano-concave	-50	062-8005	114	065-8005	167	082-8005	137	085-8005	240
800±30	Plano-concave	-100	062-8010	114	065-8010	167	082-8010	137	085-8010	240
800±30	Plano-concave	-150	062-8015	114	065-8015	167	082-8015	137	085-8015	240
800±30	Plano-concave	-200	062-8020	114	065-8020	167	082-8020	137	085-8020	240
800±30	Plano-concave	-250	062-8025	114	065-8025	167	082-8025	137	085-8025	240
800±30	Plano-concave	-500	062-8050	114	065-8050	167	082-8050	137	085-8050	240
800±30	Plano-concave	-1000	062-8100	114	065-8100	167	082-8100	137	085-8100	240
800±30	Plano-concave	-2000	062-8200	114	065-8200	167	082-8200	137	085-8200	240
800±30	Plano-concave	-2500	062-8250	114	065-8250	167	082-8250	137	085-8250	240
800±30	Plano-concave	-4000	062-8400	114	065-8400	167	082-8400	137	085-8400	240
800±30	Plano-concave	-5000	062-8500	114	065-8500	167	082-8500	137	085-8500	240
800±30	Plano-convex	+100	062-9010	118	065-9010	178	082-9010	141	085-9010	252
800±30	Plano-convex	+200	062-9020	118	065-9020	178	082-9020	141	085-9020	252
800±30	Plano-convex	+500	062-9050	118	065-9050	178	082-9050	141	085-9050	252
800±30	Plano-convex	+1000	062-9100	118	065-9100	178	082-9100	141	085-9100	252
800±30	Plano-convex	+2000	062-9200	118	065-9200	178	082-9200	141	085-9200	252
800±30	Plano-convex	+4000	062-9400	118	065-9400	178	082-9400	141	085-9400	252

* Thickness of plano-plano rear mirrors of Ø50.8 is 8 mm.

Wavelength, nm	Substrate type	Radius, mm	Substrate material BK7				Substrate material UVFS			
			Ø25.4×6 mm		Ø50.8×10 mm		Ø25.4×6 mm		Ø50.8×10 mm	
			Catalogue number	Price, EUR	Catalogue number	Price, EUR	Catalogue number	Price, EUR	Catalogue number	Price, EUR
720 – 880	Plano-plano	-∞	072-7288-i0	120	075-7288-i0 *	253	082-7288-i0	148	085-7288-i0 *	293
720 – 880	Plano-concave	-50	062-8005B	147	065-8005B	282	082-8005B	176	085-8005B	322
720 – 880	Plano-concave	-100	062-8010B	147	065-8010B	282	082-8010B	176	085-8010B	322
720 – 880	Plano-concave	-150	062-8015B	147	065-8015B	282	082-8015B	176	085-8015B	322
720 – 880	Plano-concave	-200	062-8020B	147	065-8020B	282	082-8020B	176	085-8020B	322
720 – 880	Plano-concave	-250	062-8025B	147	065-8025B	282	082-8025B	176	085-8025B	322
720 – 880	Plano-concave	-500	062-8050B	147	065-8050B	282	082-8050B	176	085-8050B	322
720 – 880	Plano-concave	-1000	062-8100B	147	065-8100B	282	082-8100B	176	085-8100B	322
720 – 880	Plano-concave	-2000	062-8200B	147	065-8200B	282	082-8200B	176	085-8200B	322
720 – 880	Plano-concave	-2500	062-8250B	147	065-8250B	282	082-8250B	176	085-8250B	322
720 – 880	Plano-concave	-3000	062-8300B	147	065-8300B	282	082-8300B	176	085-8300B	322
720 – 880	Plano-concave	-4000	062-8400B	147	065-8400B	282	082-8400B	176	085-8400B	322
720 – 880	Plano-concave	-5000	062-8500B	147	065-8500B	282	082-8500B	176	085-8500B	322
720 – 880	Plano-convex	+100	062-9010B	152	065-9010B	288	082-9010B	181	085-9010B	328
720 – 880	Plano-convex	+200	062-9020B	152	065-9020B	288	082-9020B	181	085-9020B	328
720 – 880	Plano-convex	+500	062-9050B	152	065-9050B	288	082-9050B	181	085-9050B	328
720 – 880	Plano-convex	+600	062-9060B	152	065-9060B	288	082-9060B	181	085-9060B	328
720 – 880	Plano-convex	+1000	062-9100B	152	065-9100B	288	082-9100B	181	085-9100B	328
720 – 880	Plano-convex	+1500	062-9150B	152	065-9150B	288	082-9150B	181	085-9150B	328
720 – 880	Plano-convex	+2000	062-9200B	152	065-9200B	288	082-9200B	181	085-9200B	328
720 – 880	Plano-convex	+4000	062-9400B	152	065-9400B	288	082-9400B	181	085-9400B	328

* Thickness of plano-plano rear mirrors of Ø50.8 is 8 mm.

Related Products

Uncoated Curved Windows

See page 1.6

Kinematic Mirror Mount 840-0010

Find more at EksmaOptics.com

Kinematic Mirror and Beamsplitter Mount 840-0020

Find more at EksmaOptics.com