

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.

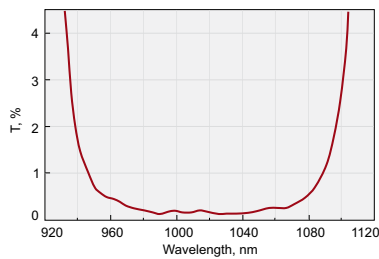
Back side can be AR coated to avoid back reflection from second surface on request.

SUBSTRATE

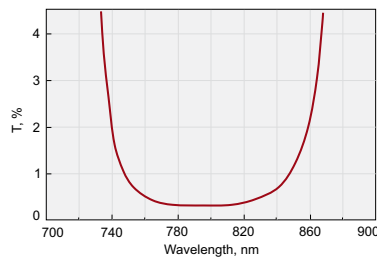
Material	UV grade Fused Silica or BK7 glass
S1 Surface Flatness	$\lambda/10$ at 633 nm
S1 Surface Quality	20–10 scratch & dig (MIL-PRF-13830B)
S2 Surface Quality	Commercial polish
Diameter Tolerance	+0.00 mm-0.12 mm
Thickness Tolerance	± 0.25
Chamfer	0.3 mm at 45° typical

COATING

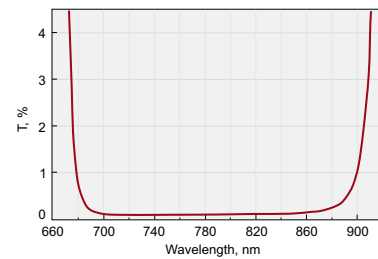
Technology	Electron beam multilayer dielectric
Adhesion and Durability	Per MIL-C-675A. Insoluble in lab solvents
Clear Aperture	Exceeds central 85% of diameter
Angle of Incidence	0–8° (normal)
Coating	Hard dielectric High Reflection $R > 99.8\%$
Laser Damage Threshold	$> 100 \text{ mJ/cm}^2$, 50 fsec pulse, 800 nm typical



HR > 99.8% @ 1030 ± 30 nm, AOI = 0°



HR > 99.8% @ 800 ± 20 nm, AOI = 0°



HR > 99.8% @ 720–880 nm, AOI = 0°

Wavelength, nm	Substrate type	Radius, mm	Substrate material BK7			Substrate material UVFS		
			Catalogue number		Price, EUR	Catalogue number		Price, EUR
			$\varnothing 25.4 \times 6 \text{ mm}$	$\varnothing 50.8 \times 10 \text{ mm}$	$\varnothing 25.4 / \varnothing 50.8$	$\varnothing 25.4 \times 6 \text{ mm}$	$\varnothing 50.8 \times 10 \text{ mm}$	$\varnothing 25.4 / \varnothing 50.8$
1030 ± 30	Plano-plano	∞	012-8000	015-8000 *	75 / 110	022-8000	025-8000 *	102 / 169
1030 ± 30	Plano-concave	-50	012-8005	015-8005	99 / 145	022-8005	025-8005	119 / 209
1030 ± 30	Plano-concave	-100	012-8010	015-8010	99 / 145	022-8010	025-8010	119 / 209
1030 ± 30	Plano-concave	-150	012-8015	015-8015	99 / 145	022-8015	025-8015	119 / 209
1030 ± 30	Plano-concave	-200	012-8020	015-8020	99 / 145	022-8020	025-8020	119 / 209
1030 ± 30	Plano-concave	-250	012-8025	015-8025	99 / 145	022-8025	025-8025	119 / 209
1030 ± 30	Plano-concave	-500	012-8050	015-8050	99 / 145	022-8050	025-8050	119 / 209
1030 ± 30	Plano-concave	-1000	012-8100	015-8100	99 / 145	022-8100	025-8100	119 / 209
1030 ± 30	Plano-concave	-2000	012-8200	015-8200	99 / 145	022-8200	025-8200	119 / 209
1030 ± 30	Plano-concave	-2500	012-8250	015-8250	99 / 145	022-8250	025-8250	119 / 209
1030 ± 30	Plano-concave	-4000	012-8400	015-8400	99 / 145	022-8400	025-8400	119 / 209
1030 ± 30	Plano-concave	-5000	012-8500	015-8500	99 / 145	022-8500	025-8500	119 / 209
1030 ± 30	Plano-convex	+100	012-9010	015-9010	103 / 155	022-9010	025-9010	123 / 219
1030 ± 30	Plano-convex	+200	012-9020	015-9020	103 / 155	022-9020	025-9020	123 / 219
1030 ± 30	Plano-convex	+500	012-9050	015-9050	103 / 155	022-9050	025-9050	123 / 219
1030 ± 30	Plano-convex	+1000	012-9100	015-9100	103 / 155	022-9100	025-9100	123 / 219
1030 ± 30	Plano-convex	+2000	012-9200	015-9200	103 / 155	022-9200	025-9200	123 / 219
1030 ± 30	Plano-convex	+4000	012-9400	015-9400	103 / 155	022-9400	025-9400	123 / 219

* Thickness of plano-plano rear mirrors of $\varnothing 50.8$ is 8 mm.

Wavelength, nm	Substrate type	Radius, mm	Substrate material BK7			Substrate material UVFS		
			Catalogue number		Price, EUR Ø25.4 / Ø50.8	Catalogue number		Price, EUR Ø25.4 / Ø50.8
			Ø25.4×6 mm	Ø50.8×10 mm		Ø25.4×6 mm	Ø50.8×10 mm	
800±20	Plano-plano	-∞	062-8000	065-8000 *	75 / 110	082-8000	085-8000 *	95 / 169
800±20	Plano-concave	-50	062-8005	065-8005	99 / 145	082-8005	085-8005	119 / 209
800±20	Plano-concave	-100	062-8010	065-8010	99 / 145	082-8010	085-8010	119 / 209
800±20	Plano-concave	-150	062-8015	065-8015	99 / 145	082-8015	085-8015	119 / 209
800±20	Plano-concave	-200	062-8020	065-8020	99 / 145	082-8020	085-8020	119 / 209
800±20	Plano-concave	-250	062-8025	065-8025	99 / 145	082-8025	085-8025	119 / 209
800±20	Plano-concave	-500	062-8050	065-8050	99 / 145	082-8050	085-8050	119 / 209
800±20	Plano-concave	-1000	062-8100	065-8100	99 / 145	082-8100	085-8100	119 / 209
800±20	Plano-concave	-2000	062-8200	065-8200	99 / 145	082-8200	085-8200	119 / 209
800±20	Plano-concave	-2500	062-8250	065-8250	99 / 145	082-8250	085-8250	119 / 209
800±20	Plano-concave	-4000	062-8400	065-8400	99 / 145	082-8400	085-8400	119 / 209
800±20	Plano-concave	-5000	062-8500	065-8500	99 / 145	082-8500	085-8500	119 / 209
800±20	Plano-convex	+100	062-9010	065-9010	103 / 155	082-9010	085-9010	123 / 219
800±20	Plano-convex	+200	062-9020	065-9020	103 / 155	082-9020	085-9020	123 / 219
800±20	Plano-convex	+500	062-9050	065-9050	103 / 155	082-9050	085-9050	123 / 219
800±20	Plano-convex	+1000	062-9100	065-9100	103 / 155	082-9100	085-9100	123 / 219
800±20	Plano-convex	+2000	062-9200	065-9200	103 / 155	082-9200	085-9200	123 / 219
800±20	Plano-convex	+4000	062-9400	065-9400	103 / 155	082-9400	085-9400	123 / 219

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

Wavelength, nm	Substrate type	Radius, mm	Substrate material BK7			Substrate material UVFS		
			Catalogue number		Price, EUR Ø25.4 / Ø50.8	Catalogue number		Price, EUR Ø25.4 / Ø50.8
			Ø25.4×6 mm	Ø50.8×10 mm		Ø25.4×6 mm	Ø50.8×10 mm	
720-880	Plano-plano	∞	062-8000B	065-8000B*	104 / 147	082-8000B	085-8000B*	129 / 210
720-880	Plano-concave	-50	062-8005B	065-8005B	128 / 182	082-8005B	085-8005B	153 / 250
720-880	Plano-concave	-100	062-8010B	065-8010B	128 / 182	082-8010B	085-8010B	153 / 250
720-880	Plano-concave	-150	062-8015B	065-8015B	128 / 182	082-8015B	085-8015B	153 / 250
720-880	Plano-concave	-200	062-8020B	065-8020B	128 / 182	082-8020B	085-8020B	153 / 250
720-880	Plano-concave	-250	062-8025B	065-8025B	128 / 182	082-8025B	085-8025B	153 / 250
720-880	Plano-concave	-500	062-8050B	065-8050B	128 / 182	082-8050B	085-8050B	153 / 250
720-880	Plano-concave	-1000	062-8100B	065-8100B	128 / 182	082-8100B	085-8100B	153 / 250
720-880	Plano-concave	-2000	062-8200B	065-8200B	128 / 182	082-8200B	085-8200B	153 / 250
720-880	Plano-concave	-2500	062-8250B	065-8250B	128 / 182	082-8250B	085-8250B	153 / 250
720-880	Plano-concave	-4000	062-8400B	065-8400B	128 / 182	082-8400B	085-8400B	153 / 250
720-880	Plano-concave	-5000	062-8500B	065-8500B	128 / 182	082-8500B	085-8500B	153 / 250
720-880	Plano-convex	100	062-9010B	065-9010B	132 / 192	082-9010B	085-9010B	157 / 260
720-880	Plano-convex	200	062-9020B	065-9020B	132 / 192	082-9020B	085-9020B	157 / 260
720-880	Plano-convex	500	062-9050B	065-9050B	132 / 192	082-9050B	085-9050B	157 / 260
720-880	Plano-convex	1000	062-9100B	065-9100B	132 / 192	082-9100B	085-9100B	157 / 260
720-880	Plano-convex	2000	062-9200B	065-9200B	132 / 192	082-9200B	085-9200B	157 / 260
720-880	Plano-convex	4000	062-9400B	065-9400B	132 / 192	082-9400B	085-9400B	157 / 260

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

RELATED PRODUCTS

Uncoated Curved Mirrors

See page 1.7

Kinematic Mirror Mount 840-0010

See page 8.58



Kinematic Mirror and Beamsplitter Mount 840-0020

See page 8.58

