



Mirrors

LASER MIRRORS

Laser mirrors are dielectric reflectors providing an optimised performance at stated wavelengths. High polishing quality is important for low wave front distortion, low scattering and high laser damage threshold. Mirrors are designed to work at 0 or 45 degrees.

Mirrors of Ø76.2 mm and Ø101.6 mm are available upon request

SUBSTRATE

Material	UV grade fused silica or BK7 glass
S1 Surface Flatness	$\lambda/10$ typical 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	Electron beam multilayer dielectric or Ion beam sputtering
Adhesion and Durability	Per MIL-C-675A. Insoluble in lab solvents
Clear Aperture	Exceeds central 85% of diameter
Laser Damage Threshold	6 J/cm ² , 8 nsec pulse, 1064 nm typical
Coated Surface Flatness	$\lambda/10$ at 633 nm over 85% of diameter available
Angle of Incidence	0 or 45°

Laser Line Mirrors

Substrate material: **BK7, grade A.**

Wavelength, nm	Application	R, % (s+p)/2	Catalogue number (AOI=45°)			Price, EUR
			Ø12.7 × 3 mm	Ø25.4 × 6 mm	Ø50.8 × 8 mm	
351-361	Nd:YAG 3H	99.5	031-0350	032-0350	035-0350	59 / 95 / 128
380-420	Ti: Sa 2H	99.5	031-0400	032-0400	035-0400	57 / 89 / 133
442	HeCd	99.5	031-0442	032-0442	035-0442	57 / 83 / 133
488-515	Ar+	99.5	031-0490	032-0490	035-0490	57 / 83 / 133
500-530	Yb:KGW/KYW 2H	99.5	031-0515	032-0515	035-0515	56 / 74 / 110
527-532	Nd:YAG 2H	99.5	031-0530	032-0530	035-0530	56 / 74 / 110
589	Dye	99.5	031-0590	032-0590	035-0590	56 / 82 / 122
633-670	HeNe+Diode	99.5	031-0630	032-0630	035-0630	56 / 75 / 122
694	Ruby	99.5	031-0694	032-0694	035-0694	56 / 75 / 122
760-840	Ti:Sa 1H	99.5	031-0800	032-0800	035-0800	61 / 85 / 133
780	Diode	99.5	031-0780	032-0780	035-0780	57 / 83 / 122
852	Diode	99.5	031-0850	032-0850	035-0850	57 / 83 / 133
980	Diode	99.5	031-0980	032-0980	035-0980	57 / 83 / 122
1000-1060	Yb:KGW/KYW 1H	99.5	031-1030	032-1030	035-1030	61 / 75 / 110
1047-1064	Nd:YAG 1H	99.5	031-1060	032-1060	035-1060	57 / 75 / 110
1300-1320	YAG	99.5	031-1300	032-1300	035-1300	61 / 85 / 137
1520-1570	Diode	99.5	031-1550	032-1550	035-1550	61 / 90 / 139

Mirrors provided are of AOI=45°. Mirrors with AOI=0° can be ordered by adding -10 to catalogue number. Reflectivity R (s+p)/2 for AOI=0° is 99.8%.

The examples:
031-0350-10,
037-0400-10.

BK7 Ø76.2x12.7 mm

Wavelength, nm	Application	R, % (s+p)/2	Catalogue number (AOI=45°)	Price, EUR
380-420	Ti: Sa 2H	99.5	037-0400	199
500-530	Yb:KGW/KYW 2H	99.5	037-0515	185
527-532	Nd:YAG 2H	99.5	037-0530	185
760-840	Ti: Sa 1H	99.5	037-0800	199
1000-1060	Yb:KGW/KYW 3H	99.5	037-1030	185
1047-1064	Nd:YAG 1H	99.5	037-1060	185

Substrate material: **UV grade Fused Silica.**

Most of Laser Mirrors are available for fast off-the-shelf delivery. Check the availability at www.eksmaoptics.com

Wavelength, nm	Application	R, % (s+p)/2	Catalogue number (AOI=45°)			Price, EUR Ø12.7 / Ø25.4 / Ø50.8
			Ø12.7 × 3 mm	Ø25.4 × 6 mm	Ø50.8 × 8 mm	
244-248	KrF	99.0	041-0240	042-0240	045-0240	81 / 111 / 216
262-266	Nd:YAG	99.0	041-0260	042-0260	045-0260	81 / 111 / 207
257-275	Ti:Sa 3H	99.0	041-0266	042-0266	045-0266	81 / 111 / 207
308	XeCl	99.2	041-0300	042-0300	045-0300	79 / 109 / 207
325	HeCd	99.5	041-0325	042-0325	045-0325	75 / 105 / 181
333-353	Yb:KGW/KYW 3H	99.5	041-0343	042-0343	045-0343	77 / 107 / 187
347	Ruby	99.5	041-0347	042-0347	045-0347	75 / 105 / 181
351-361	Nd:YAG 3H	99.5 99.9	041-0350 –	042-0350 042-0350HHR	045-0350 –	77 / 107 / 187 – / 175 / –
380-420	Ti:Sa 2H	99.5	041-0400	042-0400	045-0400	75 / 101 / 181
500-530	Yb:KGW/KYW 2H	99.5	041-0515	042-0515	045-0515	74 / 91 / 169
527-532	Nd:YAG 2H	99.5 99.9	041-0530 –	042-0530 042-0530HHR	045-0530 –	72 / 102 / 169 – / 145 / –
760-840	Ti:Sa 1H	99.5 99.8	041-0800 –	042-0800 042-0800HHR	045-0800 –	75 / 97 / 181 – / 175 / –
1000-1060	Yb:KGW/KYW 1H	99.5	041-1030	042-1030	045-1030	75 / 92 / 169
1047-1064	Nd:YAG 1H	99.5 99.9	041-1060 –	042-1060 042-1060HHR	045-1060 –	72 / 102 / 169 – / 145 / –

Substrate material: **UV grade Fused Silica Ø76.2x12.7 mm**

Wavelength, nm	Application	R, % (s+p)/2	Catalogue number (AOI=45°)	Price, EUR
257-275	Ti:Sa 3H	99.0	047-0266	290
333-353	Yb:KGW/KYW 3H	99.5	047-0343	281
351-361	Nd:YAG 3H	99.5	047-0350	281
380-420	Ti:Sa 2H	99.5	047-0400	272
500-530	Yb:KGW/KYW 2H	99.5	047-0515	258
527-532	Nd:YAG 2H	99.5	047-0530	258
760-840	Ti:Sa 1H	99.5	047-0800	272
1000-1060	Yb:KGW/KYW 1H	99.5	047-1030	258
1047-1064	Nd:YAG 1H	99.5	047-1060	258

Mirrors provided are of AOI=45°. Mirrors with AOI=0° can be ordered by adding **-i0** to catalogue number. Reflectivity R (s+p)/2 for AOI=0° is 99.8%.

The examples:

042-0240-i0, 047-0266-i0.

Dual Band Mirrors

Substrate: **BK7, grade A.**

Wavelength, nm	Application	R, % (s+p)/2	Catalogue number (AOI=45°)				Price, EUR Ø12.7 / Ø25.4 / Ø50.8
			Ø12.7 × 3 mm	Ø25.4 × 6 mm	Ø50.8 × 8 mm	Ø76.2 × 12.7 mm	
390-410+780-820	Ti:Sa 2H+1H	99.5	051-4080	052-4080	055-4080	057-4080	85 / 103 / 151 / 227
500-530+1000-1060	Yb:KGW/KYW 2H+1H	99.5	051-5103	053-5103	055-5103	057-5103	85 / 103 / 151 / 227
532+1064	Nd:YAG 2H+1H	99.5	051-5306	052-5306	055-5306	057-5306	85 / 103 / 151 / 227
633+1064	HeNe:Nd:YAG 1H	99.5	051-6306	052-6306	055-6306	057-6306	85 / 103 / 151 / 227

Mirrors provided are of AOI=45°. Mirrors with AOI=0° can be ordered by adding **-i0** to catalogue number. The price remains the same as for AOI=45°.An example: **042-4080-i0.**Substrate material: **UV grade Fused Silica.**

Wavelength, nm	Application	R, % (s+p)/2	Catalogue number (AOI=45°)				Price, EUR Ø12.7 / Ø25.4 / Ø50.8 / Ø76.2
			Ø12.7 × 3 mm	Ø25.4 × 6 mm	Ø50.8 × 8 mm	Ø76.2 × 12.7 mm	
355+532	Nd:YAG 3H+2H	99.5	061-3553	062-3553	065-3553	067-3553	115 / 139 / 215 / 323
390-410+780-820	Ti:Sa 2H+1H	99.5	061-4080	062-4080	065-4080	067-4080	110 / 128 / 214 / 321
500-530+1000-1060	Yb:KGW/KYW 2H+1H	99.5	061-5103	062-5103	065-5103	067-5103	110 / 128 / 214 / 321
532+1064	Nd:YAG 2H+1H	99.5 99.9	061-5306 –	062-5306 062-5306HHR	065-5306 –	067-5306 –	109 / 134 / 209 / 318 – / 180 / – / –
633+1064	HeNe:Nd:YAG 1H	99.5	061-6306	062-6306	065-6306	067-6306	109 / 134 / 209 / 318

Mirrors provided are of AOI=45°. Mirrors with AOI=0° can be ordered by adding **-i0** to catalogue number. The price remains the same as for AOI=45°.An example: **062-3553-i0.**