

Nd:YAG Laser Optics

LASER MIRRORS

Our Nd:YAG laser mirrors are suitable for fundamental Nd:YAG laser 1064 nm, frequency-doubled 532 nm, frequency-tripled 355 nm and frequency quadrupled 266 nm wavelength application. Two kinds of substrate material are available. Laser line mirrors are designed for 45°

angle of incidence. Featuring high polishing quality, low scattering and high damage threshold, our dielectric reflectors enables perfect beam steering for Nd:YAG lasers.

Substrate

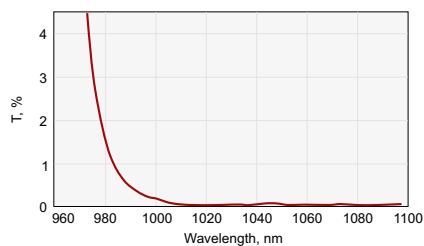
Material	UV grade Fused Silica or BK7 glass
S1 Surface Flatness	$\lambda/10$ at 633 nm
S1 Surface Quality	20–10 scratch & dig (MIL-PRF-13830B)
S2 Surface Quality	Commercial polish
Diameter Tolerance	+0.00 mm -0.12 mm
Thickness Tolerance	± 0.25 mm
Wedge	< 3 min
Chamfer	0.3 mm at 45° typical

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
Damage Threshold:	
BK7 laser line mirrors	5 J/cm ² , 8 nsec pulse, 1064 nm typical
UV FS laser line mirrors	8 J/cm ² , 8 nsec pulse, 1064 nm typical
BK7 dual line mirrors	1 J/cm ² , 8 nsec pulse, 1064 nm typical
UV FS dual line mirrors	2 J/cm ² , 8 nsec pulse, 1064 nm typical
Coated Surface Flatness	$\lambda/10$ at 633 nm over clear aperture
Angle of Incidence	0 or 45°

LASER LINE MIRRORS

Substrate material: **BK7 grade A**

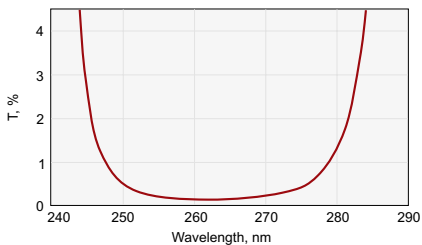


HR 1064 nm, AOI = 45°

Wavelength, nm	AOI=0°			AOI=45°		
	R, % (s+p)/2	Catalogue number	Price, EUR	R, % (s+p)/2	Catalogue number	Price, EUR
Size – Ø12.7 × 3 mm						
351–361	99.7	031-0350-i0	65	99.5	031-0350	65
527–532	99.7	031-0530-i0	62	99.5	031-0530	62
1047–1064	99.7	031-1060-i0	63	99.5	031-1060	63
Size – Ø12.7 × 6 mm						
351–361	99.7	031-0350T6-i0	65	99.5	031-0350T6	65
527–532	99.7	031-0530T6-i0	62	99.5	031-0530T6	62
1047–1064	99.7	031-1060T6-i0	63	99.5	031-1060T6	63
Size – Ø25.4 × 6 mm						
351–361	99.7	032-0350-i0	99	99.5	032-0350	99
527–532	99.7	032-0530-i0	81	99.5	032-0530	81
1047–1064	99.7	032-1060-i0	83	99.5	032-1060	83
Size – Ø50.8 × 8 mm						
351–361	99.7	035-0350-i0	141	99.5	035-0350	141
527–532	99.7	035-0530-i0	121	99.5	035-0530	121
1047–1064	99.7	035-1060-i0	121	99.5	035-1060	121
Size – Ø76.2 × 12.7 mm						
527–532	99.7	037-0530-i0	204	99.5	037-0530	204
1047–1064	99.7	037-1060-i0	204	99.5	037-1060	204

LASER LINE MIRRORS

Substrate material: **UV grade Fused Silica**



HR 266 nm, AOI = 45°

Wavelength, nm	AOI=0°			AOI=45°		
	R, % (s+p)/2	Catalogue number	Price, EUR	R, % (s+p)/2	Catalogue number	Price, EUR

Size – Ø12.7 × 3 mm

262–266	99	041-0260-i0	78	99	041-0260	78
351–361	99.7	041-0350-i0	74	99.5	041-0350	74
527–532	99.7	041-0530-i0	68	99.5	041-0530	68
1047–1064	99.7	041-1060-i0	68	99.5	041-1060	68

Size – Ø12.7 × 6 mm

262–266	99	041-0260T6-i0	78	99	041-0260T6	78
351–361	99.7	041-0350T6-i0	74	99.5	041-0350T6	74
527–532	99.7	041-0530T6-i0	68	99.5	041-0530T6	68
1047–1064	99.7	041-1060T6-i0	68	99.5	041-1060T6	68

Size – Ø25.4 × 6 mm

262–266	99	042-0260-i0	109	99	042-0260	109
351–361	99.7	042-0350-i0	105	99.5	042-0350	105
527–532	99.7	042-0530-i0	99	99.5	042-0530	99
1047–1064	99.7	042-1060-i0	99	99.5	042-1060	99

Size – Ø50.8 × 8 mm

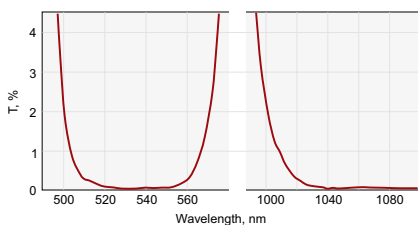
262–266	99	045-0260-i0	228	99	045-0260	228
351–361	99.7	045-0350-i0	206	99.5	045-0350	206
527–532	99.7	045-0530-i0	186	99.5	045-0530	186
1047–1064	99.7	045-1060-i0	186	99.5	045-1060	186

Size – Ø76.2 × 12.7 mm

351–361	99.7	047-0350-i0	309	99.5	047-0350	309
527–532	99.7	047-0530-i0	284	99.5	047-0530	284
1047–1064	99.7	047-1060-i0	284	99.5	047-1060	284

DUAL BAND MIRRORS

Substrate material: **BK7 grade A**



HR 532+1064 nm, AOI = 45°

Wavelength, nm	AOI=0°			AOI=45°		
	R, % (s+p)/2	Catalogue number	Price, EUR	R, % (s+p)/2	Catalogue number	Price, EUR

Size – Ø12.7 × 3 mm

532+1064	99.7	051-5306-i0	94	99.5	051-5306	94
633+1064	99.7	051-6306-i0	94	99.5	051-6306	94

Size – Ø12.7 × 6 mm

532+1064	99.7	051-5306T6-i0	94	99.5	051-5306T6	94
633+1064	99.7	051-6306T6-i0	94	99.5	051-6306T6	94

Size – Ø25.4 × 6 mm

532+1064	99.7	052-5306-i0	113	99.5	052-5306	113
633+1064	99.7	052-6306-i0	113	99.5	052-6306	113

Size – Ø50.8 × 8 mm

532+1064	99.7	055-5306-i0	166	99.5	055-5306	166
633+1064	99.7	055-6306-i0	166	99.5	055-6306	166

Size – Ø76.2 × 12.7 mm

532+1064	99.7	057-5306-i0	250	99.5	057-5306	250
633+1064	99.7	057-6306-i0	250	99.5	057-6306	250

Related Products

Prisms See page 1.50

Kinematic Mirror/Beamsplitter Mounts 840-0056

Find more at EksmaOptics.com



DUAL BAND MIRRORS

Substrate material: **UV grade Fused Silica**

Wavelength, nm	AOI=0°			AOI=45°		
	R, % (s+p)/2	Catalogue number	Price, EUR	R, % (s+p)/2	Catalogue number	Price, EUR
Size – Ø12.7 × 3 mm						
532+1064	99.7	061-5306-i0	120	99.5	061-5306	120
633+1064	99.7	061-6306-i0	120	99.5	061-6306	120
355+532	99.7	061-3553-i0	127	99.5	061-3553	127
Size – Ø12.7 × 6 mm						
532+1064	99.7	061-5306T6-i0	120	99.5	061-5306T6	120
633+1064	99.7	061-6306T6-i0	120	99.5	061-6306T6	120
355+532	99.7	061-3553T6-i0	127	99.5	061-3553T6	127
Size – Ø25.4 × 6 mm						
532+1064	99.7	062-5306-i0	147	99.5	062-5306	147
633+1064	99.7	062-6306-i0	147	99.5	062-6306	147
355+532	99.7	062-3553-i0	153	99.5	062-3553	153
Size – Ø50.8 × 8 mm						
532+1064	99.7	065-5306-i0	230	99.5	065-5306	230
633+1064	99.7	065-6306-i0	230	99.5	065-6306	230
355+532	99.7	065-3553-i0	237	99.5	065-3553	237
Size – Ø76.2 × 12.7 mm						
532+1064	99.7	067-5306-i0	350	99.5	067-5306	350
633+1064	99.7	067-6306-i0	350	99.5	067-6306	350
355+532	99.7	067-3553-i0	355	99.5	067-3553	355

Related Products

Laser Line and Dual Laser Line Mirrors of other wavelengths

See page 1.19



Metal Coated Mirrors

See page 1.25

HIGH POWER IBS COATED LASER MIRRORS

Substrate

Material	UV grade fused silica
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 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	$\lambda/10$ at 633 nm over clear aperture

Design wavelength – 266 nm. LIDT > 6 J/cm², 10 ns pulse, 100 Hz, 266 nm typical

Wavelength, nm	AOI, deg	R, % (s+p)/2	Ø 12.7 x 6 mm		Ø 25.4 x 6 mm		Ø 50.8 x 12 mm	
			Catalogue number	Price, EUR	Catalogue number	Price, EUR	Catalogue number	Price, EUR
266	45	99.5	041-0266HHR	160	042-0266HHR	209	045-0266HHR	645
266	0	99.5	041-0266HHR-i0	160	042-0266HHR-i0	209	045-0266HHR-i0	645

Design wavelength – 355 nm. LIDT > 10 J/cm², 10 ns pulse, 100 Hz, 355 nm typical

Wavelength, nm	AOI, deg	R, % (s+p)/2	Ø 12.7 x 6 mm		Ø 25.4 x 6 mm		Ø 50.8 x 12 mm	
			Catalogue number	Price, EUR	Catalogue number	Price, EUR	Catalogue number	Price, EUR
355	45	99.8	041-0350T6UHHR	149	042-0350UHHR	198	045-0350UHHR	635
355	0	99.8	041-0350T6UHHR-i0	149	042-0350UHHR-i0	198	045-0350UHHR-i0	635

Design wavelength – 532 nm. LIDT > 10 J/cm², 10 ns pulse, 100 Hz, 532 nm typical.

Wavelength, nm	AOI, deg	R, % (s+p)/2	Ø 12.7 x 6 mm		Ø 25.4 x 6 mm		Ø 50.8 x 12 mm	
			Catalogue number	Price, EUR	Catalogue number	Price, EUR	Catalogue number	Price, EUR
532	45	99.9	041-0530T6HHR	83	042-0530HHR	116	045-0530T12HHR	410
532	0	99.95	041-0530T6HHR-i0	83	042-0530HHR-i0	116	045-0530T12HHR-i0	410
532	0-45	99.9	041-0530T6HHR-i0-45	99	042-0530HHR-i0-45	132	045-0530T12HHR-i0-45	470