

## 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
<b>Size – Ø12.7 × 3 mm</b>						
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
<b>Size – Ø12.7 × 6 mm</b>						
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
<b>Size – Ø25.4 × 6 mm</b>						
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
<b>Size – Ø50.8 × 8 mm</b>						
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
<b>Size – Ø76.2 × 12.7 mm</b>						
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	$\pm 0.25$ 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/cm<sup>2</sup>, 10 ns pulse, 100 Hz, 266 nm typical

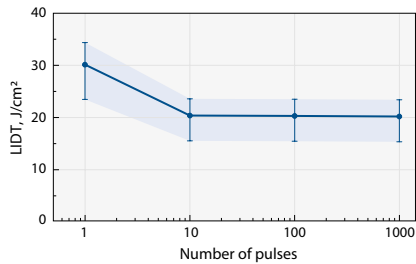
Wavelength, nm	AOI, deg	R, % (s+p)/2	Ø 12.7 x 6 mm		Ø 25.4 x 6 mm		Ø 50.8 x 12 mm	
			Catalogue number	Price, EUR	Catalogue number	Price, EUR	Catalogue number	Price, EUR
266	45	99.5	041-0266HHR	160	042-0266HHR	209	045-0266HHR	645
266	0	99.5	041-0266HHR-i0	160	042-0266HHR-i0	209	045-0266HHR-i0	645

**Design wavelength – 355 nm.** LIDT > 10 J/cm<sup>2</sup>, 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/cm<sup>2</sup>, 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



LIDT of High Power Laser Mirrors @ 532 nm

**Test conditions:**

Wavelength	532 nm
Pulse duration	(5.4 ± 0.3) ns
Repetition rate	100 Hz
AOI	45°
Polarization	linear P
Beam diameter (1/e²)	(206.0 ± 6.7) μm

**Design wavelength – 532 nm.** LIDT >20 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	041-0530T6UHHR	121	042-0530UHHR	171	045-0530T12UHHR	530
532	0	99.95	041-0530T6UHHR-i0	121	042-0530UHHR-i0	171	045-0530T12UHHR-i0	530

**Design wavelength – 800 nm.** LIDT >30 J/cm², 10 ns pulse, 100 Hz, 800 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
800	45	99.9	041-0800T6UHHR	127	042-0800UHHR	182	045-0800T12UHHR	550
800	0	99.95	041-0800T6UHHR-i0	127	042-0800UHHR-i0	182	045-0800T12UHHR-i0	550

**Design wavelength – 1064 nm.** LIDT >20 J/cm², 10 ns pulse, 100 Hz, 1064 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
1064	45	99.9	041-1060T6HHR	83	042-1060HHR	116	045-1060T12HHR	410
1064	0	99.95	041-1060T6HHR-i0	83	042-1060HHR-i0	116	045-1060T12HHR-i0	410
1064	0-45	99.9	041-1060T6HHR-i0-45	99	042-1060HHR-i0-45	132	045-1060T12HHR-i0-45	470

**Design wavelength – 1064 nm.** LIDT >40 J/cm², 10 ns pulse, 100 Hz, 1064 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
1064	45	99.9	041-1060T6UHHR	127	042-1060UHHR	182	045-1060T12UHHR	550
1064	0	99.95	041-1060T6UHHR-i0	127	042-1060UHHR-i0	182	045-1060T12UHHR-i0	550

**Design wavelength – 532+1064 nm.** LIDT >15 J/cm² at 1064 nm and LIDT >5 J/cm² at 532 nm, 10 ns pulse, 10 Hz 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+1064	45	99.5	061-5306HHR	149	062-5306HHR	198	065-5306HHR	750
532+1064	0	99.5	061-5306HHR-i0	149	062-5306HHR-i0	198	065-5306HHR-i0	750

**Design wavelength – 532+1064 nm.** LIDT >30 J/cm² at 1064 nm and LIDT >10 J/cm² at 532 nm, 10 ns pulse, 10 Hz 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+1064	45	99.5	061-5306UHHR	191	062-5306UHHR	270	065-5306UHHR	790
532+1064	0	99.5	061-5306UHHR-i0	191	062-5306UHHR-i0	270	065-5306UHHR-i0	790

## LASER HARMONIC SEPARATORS

### Features

- Offered on Ø 0.5 or 1 inch substrates of BK7 or UV FS with surface flatness λ/10

Harmonic separators are dichroic beamsplitters that reflect one wavelength and transmit the others. Reflectance is higher than 99.5% for the wavelength of interest and transmittance is at least 90% for the rejected wavelengths. The rear surface of harmonic separators is antireflection coated.

### Substrate

Material	UV grade Fused Silica or BK7 glass
S1 Surface Flatness	λ/10 typical at 633 nm
S1 Surface Quality	20–10 scratch & dig (MIL-PRF-13830B)
S2 Surface Flatness	λ/10 typical at 633 nm
S2 Surface Quality	20–10 scratch & dig (MIL-PRF-13830B)
Diameter Tolerance	+0.00 mm -0.12 mm
Thickness Tolerance	±0.25 mm
Parallelism	< 30 arcsec
Chamfer	0.3 mm at 45° typical