

DUAL BAND MIRRORS

Substrate material: **UV grade Fused Silica**

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

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

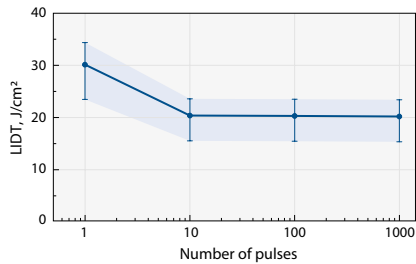
Wavelength, nm	AOI, deg	R, % (s+p)/2	Ø 12.7 × 6 mm	Ø 25.4 × 6 mm	Ø 50.8 × 12 mm
			Catalogue number	Catalogue number	Catalogue number
266	45	99.5	041-0266HHR	042-0266HHR	045-0266HHR
266	0	99.5	041-0266HHR-i0	042-0266HHR-i0	045-0266HHR-i0

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 × 6 mm	Ø 25.4 × 6 mm	Ø 50.8 × 12 mm
			Catalogue number	Catalogue number	Catalogue number
355	45	99.8	041-0350T6UHHR	042-0350UHHR	045-0350UHHR
355	0	99.8	041-0350T6UHHR-i0	042-0350UHHR-i0	045-0350UHHR-i0

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 × 6 mm	Ø 25.4 × 6 mm	Ø 50.8 × 12 mm
			Catalogue number	Catalogue number	Catalogue number
532	45	99.9	041-0530T6HHR	042-0530HHR	045-0530T12HHR
532	0	99.95	041-0530T6HHR-i0	042-0530HHR-i0	045-0530T12HHR-i0
532	0-45	99.9	041-0530T6HHR-i0-45	042-0530HHR-i0-45	045-0530T12HHR-i0-45



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	Catalogue number	Catalogue number
532	45	99.9	041-0530T6UHHR	042-0530UHHR	045-0530T12UHHR
532	0	99.95	041-0530T6UHHR-i0	042-0530UHHR-i0	045-0530T12UHHR-i0

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	Catalogue number	Catalogue number
800	45	99.9	041-0800T6UHHR	042-0800UHHR	045-0800T12UHHR
800	0	99.95	041-0800T6UHHR-i0	042-0800UHHR-i0	045-0800T12UHHR-i0

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	Catalogue number	Catalogue number
1064	45	99.9	041-1060T6HHR	042-1060HHR	045-1060T12HHR
1064	0	99.95	041-1060T6HHR-i0	042-1060HHR-i0	045-1060T12HHR-i0
1064	0-45	99.9	041-1060T6HHR-i0-45	042-1060HHR-i0-45	045-1060T12HHR-i0-45

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	Catalogue number	Catalogue number
1064	45	99.9	041-1060T6UHHR	042-1060UHHR	045-1060T12UHHR
1064	0	99.95	041-1060T6UHHR-i0	042-1060UHHR-i0	045-1060T12UHHR-i0

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	Catalogue number	Catalogue number
532+1064	45	99.5	061-5306HHR	062-5306HHR	065-5306HHR
532+1064	0	99.5	061-5306HHR-i0	062-5306HHR-i0	065-5306HHR-i0

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	Catalogue number	Catalogue number
532+1064	45	99.5	061-5306UHHR	062-5306UHHR	065-5306UHHR
532+1064	0	99.5	061-5306UHHR-i0	062-5306UHHR-i0	065-5306UHHR-i0

LASER HARMONIC SEPARATORS

Features

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

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	$\lambda/10$ typical at 633 nm
S1 Surface Quality	20–10 scratch & dig (MIL-PRF-13830B)
S2 Surface Flatness	$\lambda/10$ 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



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高速分光測定装置、クライオスタット



Nd:YAGレーザー、Ti:Sレーザー
OPOLレーザー

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