

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

FOR NANOSECOND APPLICATIONS

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	75	042-0530HHR	105	045-0530T12HHR	410
532	0	99.9	041-0530T6HHR-i0	75	042-0530HHR-i0	105	045-0530T12HHR-i0	410
532	0-45	99.9	041-0530T6HHR-i0-45	90	042-0530HHR-i0-45	120	045-0530T12HHR-i0-45	470

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	110	042-0530UHHR	155	045-0530T12UHHR	530
532	0	99.9	041-0530T6UHHR-i0	110	042-0530UHHR-i0	155	045-0530T12UHHR-i0	530

Design wavelength – 800 nm. LIDT >30 J/cm², 10 ns pulse, 100 Hz, 800 nm typical.

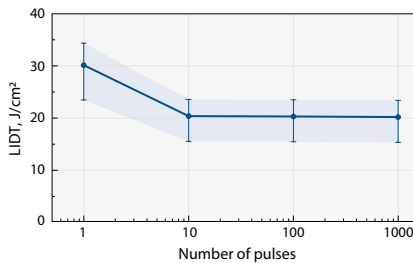
Wavelength, nm	AOI, deg	R, % (s+p)/2	Ø 12.7 x 6 mm		Ø 25.4 x 6 mm		Ø 50.8 x 12 mm	
			Catalogue number	Price, EUR	Catalogue number	Price, EUR	Catalogue number	Price, EUR
800	45	99.9	041-0800T6UHHR	115	042-0800UHHR	165	045-0800T12UHHR	550
800	0	99.9	041-0800T6UHHR-i0	115	042-0800UHHR-i0	165	045-0530T12UHHR-i0	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	75	042-1060HHR	105	045-1060T12HHR	410
1064	0	99.9	041-1060T6HHR-i0	75	042-1060HHR-i0	105	045-1060T12HHR-i0	410
1064	0-45	99.9	041-1060T6HHR-i0-45	90	042-1060HHR-i0-45	120	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	115	042-1060UHHR	165	045-1060T12UHHR	550
1064	0	99.9	041-1060T6UHHR-i0	115	042-1060UHHR-i0	165	045-1060T12UHHR-i0	550



TEST CONDITIONS:

Wavelength	532 nm
Pulse duration	(5.4 ± 0.3) ns
Repetition rate	100 Hz
AOI	45°
Polarization	linear P
Beam diameter (1/e ²)	(206.0 ± 6.7) μm

LIDT of High Power Laser Mirrors @ 532 nm

FOR PICOSECOND APPLICATIONS

OPTICAL COMPONENTS

Design wavelength – 515 nm. LIDT >1 J/cm², 10 ps pulse, 20 kHz, 515 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
515	45	99.9	041-0515PHR	75	042-0515PHR	105	045-0515PHR	410
515	0	99.9	041-0515PHR-i0	75	042-0515PHR-i0	105	045-0515PHR-i0	410
515	0-45	99.9	041-0515PHR-i0-45	90	042-0515PHR-i0-45	120	045-0515PHR-i0-45	470

Design wavelength – 515 nm. LIDT >2.5 J/cm², 10 ps pulse, 20 kHz, 515 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
515	45	99.9	041-0515PUHR	110	042-0515PUHR	105	045-0515PUHR	530
515	0	99.9	041-0515PUHR-i0	110	042-0515PUHR-i0	105	045-0515PUHR-i0	530

NONLINEAR & LASER CRYSTALS

Design wavelength – 1030 nm. LIDT >1.5 J/cm², 10 ps pulse, 20 kHz, 1030 nm typical.

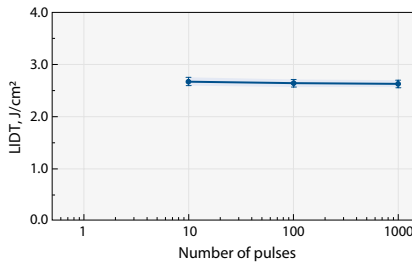
Wavelength, nm	AOI, deg	R, % (s+p)/2	Ø 12.7 x 6 mm		Ø 25.4 x 6 mm		Ø 50.8 x 12 mm	
			Catalogue number	Price, EUR	Catalogue number	Price, EUR	Catalogue number	Price, EUR
1030	45	99.9	041-1030PHR	75	042-1030PHR	105	045-1030PHR	410
1030	0	99.9	041-1030PHR-i0	75	042-1030PHR-i0	105	045-1030PHR-i0	410
1030	0-45	99.9	041-1030PHR-i0-45	90	042-1030PHR-i0-45	120	045-1030PHR-i0-45	470

ND:YAG LASERLINE COMPONENTS

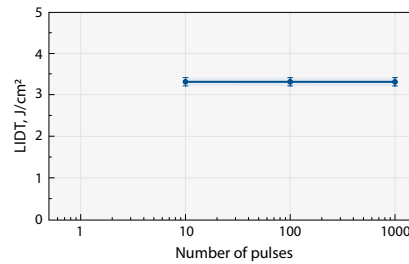
Design wavelength – 1030 nm. LIDT >3 J/cm², 10 ps pulse, 20 kHz, 515 nm typical.

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
1030	45	99.9	041-1030PUHR	115	042-1030PUHR	165	045-1030PUHR	550
1030	0	99.9	041-1030PUHR-i0	115	042-1030PUHR-i0	165	045-1030PUHR-i0	550

FEMTOLINE COMPONENTS



LIDT of High Power Laser Mirrors @ 515 nm



LIDT of High Power Laser Mirrors @ 1030 nm

OPTICAL SYSTEMS

OPTO-MECHANICAL COMPONENTS

FOR FEMTOSECOND APPLICATIONS

Design wavelength – 500-530 nm. LIDT >0.15 J/cm², 50 fs pulse, 100 Hz, 515 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
500 – 530	45	99.9	041-0515T6HHR	75	042-0515T6HHR	105	045-0515T12HHR	410
500 – 530	0	99.9	041-0515T6HHR-i0	75	042-0515T6HHR-i0	105	045-0515T12HHR-i0	410

Design wavelength – 760-840 nm. LIDT >0.15 J/cm², 50 fs 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
760 – 840	45	99.9	041-0800T6HHR	108	042-0800HHR	130	045-0800T12HHR	440
760 – 840	0	99.9	041-0800T6HHR-i0	108	042-0800HHR-i0	130	045-0800T12HHR-i0	440
760 – 840	0-45	99.9	041-7684T6HHR-i0-45	110	042-7684HHR-i0-45	140	045-4684T12HHR-i0-45	480

Design wavelength – 760-840 nm. LIDT >0.4 J/cm², 50 fs pulse, 100 Hz, 800 nm typical.

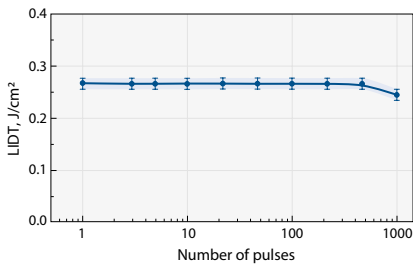
Wavelength, nm	AOI, deg	R, % (s+p)/2	Ø 12.7 x 6 mm		Ø 25.4 x 6 mm		Ø 50.8 x 12 mm	
			Catalogue number	Price, EUR	Catalogue number	Price, EUR	Catalogue number	Price, EUR
760 – 840	45	99.9	041-0800T6UHHR	158	042-0800T6UHHR	190	045-0800T12UHHR	570
760 – 840	0	99.9	041-0800T6UHHR-i0	158	042-0800T6UHHR-i0	190	045-0800T12UHHR-i0	570

Design wavelength – 720-880 nm. LIDT >0.25 J/cm², 50 fs 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		Ø 76.2 x 15 mm	
			Catalogue number	Price, EUR	Catalogue number	Price, EUR	Catalogue number	Price, EUR	Catalogue number	Price, EUR
720 – 880	45	99.9	081-7288HHR	108	082-7288HHR	145	085-7288HHR	490	087-7288T15HHR	515
720 – 880	0	99.9	081-7288HHR-i0	108	082-7288HHR-i0	145	085-7288HHR-i0	490	087-7288T15HHR-i0	515

Design wavelength – 1000-1060 nm. LIDT >0.3 J/cm², 50 fs pulse, 100 Hz, 1030 nm typical.

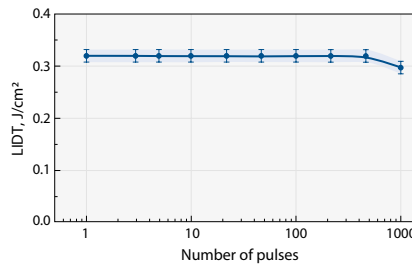
Wavelength, nm	AOI, deg	R, % (s+p)/2	Ø 12.7 x 6 mm		Ø 25.4 x 6 mm		Ø 50.8 x 12 mm	
			Catalogue number	Price, EUR	Catalogue number	Price, EUR	Catalogue number	Price, EUR
1000 – 1060	45	99.9	041-1030T6HHR	75	042-1030HHR	105	045-1030HHR	410
1000 – 1060	0	99.9	041-1030T6HHR-i0	75	042-1030HHR-i0	105	045-1030HHR-i0	410



LIDT of High Power Laser Mirrors @ 720-880 nm, AOI = 45°

TEST CONDITIONS:

Wavelength	800 nm
Pulse duration	52.4 fs
Repetition rate	50 Hz
AOI	45°
Polarization	linear P
Beam diameter (1/e ²)	(95.5 ± 0.9) µm



LIDT of High Power Laser Mirrors @ 720-880 nm, AOI = 0°

TEST CONDITIONS:

Wavelength	800 nm
Pulse duration	52.4 fs
Repetition rate	50 Hz
AOI	0°
Polarization	linear
Beam diameter (1/e ²)	(95.5 ± 0.9) µm