

LASER BEAMSPLITTERS

Beamsplitter splits average polarized laser beam in two beams separated 90° from each other.

The standard substrate thickness is 3 mm. If you need thinner substrate, please, choose from chapter Precision Thin Round Windows (page 1.10).

Please contact us for wedged beamsplitters or choose wedged substrates from Wedge Prisms (page 1.37)

SUBSTRATE

Material	UV FS
S1 Surface Flatness	
S1 Surface Quality	20-10 scratch & dig (MIL-PRF-13830B)
S2 Surface Flatness	
S2 Surface Quality	20-10 scratch & dig (MIL-PRF-13830B)
Diameter Tolerance	+0.00 mm-0.12 mm
Thickness Tolerance	±0.25
Parallelism	30 arcsec
Chamfer	0.3 mm at 45° typical

COATING

Technology	Electron beam multilayer dielectric
Adhesion and Durability	Per MIL-C-675A. Insoluble in lab solvents
Clear Aperture	Exceeds central 85% of diameter
Angle of Incidence	45±3°
Back side antireflection coat	R<0.5%
Laser Damage Threshold	>100 mJ/cm², 50 fsec pulse, 800 nm typical

Designed for average polarization: $R=(R_s+R_p)/2$ and $T=(T_s+T_p)/2$

Wavelength, nm	Reflection %	Transmission %	Substrate material	Catalogue number		
				Ø12.7 × 3 mm	Ø25.4 × 3 mm	Ø50.8 × 8 mm
1030	20±3	80±3	UV FS	031-7420A	032-7420A	035-7420A
1030	30±3	70±3	UV FS	031-7430A	032-7430A	035-7430A
1030	50±3	50±3	UV FS	031-7450A	032-7450A	035-7450A
1030	70±3	30±3	UV FS	031-7470A	032-7470A	035-7470A
1030	80±3	20±3	UV FS	031-7480A	032-7480A	035-7480A
515	20±3	80±3	UV FS	031-7520A	032-7520A	035-7520A
515	30±3	70±3	UV FS	031-7530A	032-7530A	035-7530A
515	50±3	50±3	UV FS	031-7550A	032-7550A	035-7550A
515	70±3	30±3	UV FS	031-7570A	032-7570A	035-7570A
515	80±3	20±3	UV FS	031-7580A	032-7580A	035-7580A
343	20±3	80±3	UV FS	031-7620A	032-7620A	035-7620A
343	30±3	70±3	UV FS	031-7630A	032-7630A	035-7630A
343	50±3	50±3	UV FS	031-7650A	032-7650A	035-7650A
343	70±3	30±3	UV FS	031-7670A	032-7670A	035-7670A
343	80±3	20±3	UV FS	031-7680A	032-7680A	035-7680A
800	20±3	80±3	UV FS	041-7720A	042-7720A	045-7720A
800	30±3	70±3	UV FS	041-7730A	042-7730A	045-7730A
800	50±3	50±3	UV FS	041-7750A	042-7750A	045-7750A
800	70±3	30±3	UV FS	041-7770A	042-7770A	045-7770A
800	80±3	20±3	UV FS	041-7780A	042-7780A	045-7780A
400	20±3	80±3	UV FS	041-7820A	042-7820A	045-7820A
400	30±3	70±3	UV FS	041-7830A	042-7830A	045-7830A
400	50±3	50±3	UV FS	041-7850A	042-7850A	045-7850A
400	70±3	30±3	UV FS	041-7870A	042-7870A	045-7870A
400	80±3	20±3	UV FS	041-7880A	042-7880A	045-7880A
266	20±3	80±3	UV FS	041-7920A	042-7920A	045-7920A
266	30±3	70±3	UV FS	041-7930A	042-7930A	045-7930A
266	50±3	50±3	UV FS	041-7950A	042-7950A	045-7950A
266	70±3	30±3	UV FS	041-7970A	042-7970A	045-7970A
266	80±3	20±3	UV FS	041-7980A	042-7980A	045-7980A

Designed for S-polarization

Wavelength, nm	Reflection %	Transmission %	Substrate material	Catalogue number		
				Ø12.7 × 3 mm	Ø25.4 × 3 mm	Ø50.8 × 8 mm
1030	20±3	80±3	UV FS	031-7420S	032-7420S	035-7420S
1030	30±3	70±3	UV FS	031-7430S	032-7430S	035-7430S
1030	50±3	50±3	UV FS	031-7450S	032-7450S	035-7450S
1030	70±3	30±3	UV FS	031-7470S	032-7470S	035-7470S
1030	80±3	20±3	UV FS	031-7480S	032-7480S	035-7480S
515	20±3	80±3	UV FS	031-7520S	032-7520S	035-7520S
515	30±3	70±3	UV FS	031-7530S	032-7530S	035-7530S
515	50±3	50±3	UV FS	031-7550S	032-7550S	035-7550S
515	70±3	30±3	UV FS	031-7570S	032-7570S	035-7570S
515	80±3	20±3	UV FS	031-7580S	032-7580S	035-7580S

Wavelength, nm	Reflection %	Transmission %	Substrate material	Catalogue number		
				Ø12.7 × 3 mm	Ø25.4 × 3 mm	Ø50.8 × 8 mm
343	20±3	80±3	UV FS	031-7620S	032-7620S	035-7620S
343	30±3	70±3	UV FS	031-7630S	032-7630S	035-7630S
343	50±3	50±3	UV FS	031-7650S	032-7650S	035-7650S
343	70±3	30±3	UV FS	031-7670S	032-7670S	035-7670S
343	80±3	20±3	UV FS	031-7680S	032-7680S	035-7680S
800	20±3	80±3	UV FS	041-7720S	042-7720S	045-7720S
800	30±3	70±3	UV FS	041-7730S	042-7730S	045-7730S
800	50±3	50±3	UV FS	041-7750S	042-7750S	045-7750S
800	70±3	30±3	UV FS	041-7770S	042-7770S	045-7770S
800	80±3	20±3	UV FS	041-7780S	042-7780S	045-7780S
400	20±3	80±3	UV FS	041-7820S	042-7820S	045-7820S
400	30±3	70±3	UV FS	041-7830S	042-7830S	045-7830S
400	50±3	50±3	UV FS	041-7850S	042-7850S	045-7850S
400	70±3	30±3	UV FS	041-7870S	042-7870S	045-7870S
400	80±3	20±3	UV FS	041-7880S	042-7880S	045-7880S
266	20±3	80±3	UV FS	041-7920S	042-7920S	045-7920S
266	30±3	70±3	UV FS	041-7930S	042-7930S	045-7930S
266	50±3	50±3	UV FS	041-7950S	042-7950S	045-7950S
266	70±3	30±3	UV FS	041-7970S	042-7970S	045-7970S
266	80±3	20±3	UV FS	041-7980S	042-7980S	045-7980S

Designed for P-polarization

Wavelength, nm	Reflection %	Transmission %	Substrate material	Catalogue number		
				Ø12.7 × 3 mm	Ø25.4 × 3 mm	Ø50.8 × 8 mm
1030	20±3	80±3	UV FS	031-7420P	032-7420P	035-7420P
1030	30±3	70±3	UV FS	031-7430P	032-7430P	035-7430P
1030	50±3	50±3	UV FS	031-7450P	032-7450P	035-7450P
1030	70±3	30±3	UV FS	031-7470P	032-7470P	035-7470P
1030	80±3	20±3	UV FS	031-7480P	032-7480P	035-7480P
515	20±3	80±3	UV FS	031-7520P	032-7520P	035-7520P
515	30±3	70±3	UV FS	031-7530P	032-7530P	035-7530P
515	50±3	50±3	UV FS	031-7550P	032-7550P	035-7550P
515	70±3	30±3	UV FS	031-7570P	032-7570P	035-7570P
515	80±3	20±3	UV FS	031-7580P	032-7580P	035-7580P
343	20±3	80±3	UV FS	031-7620P	032-7620P	035-7620P
343	30±3	70±3	UV FS	031-7630P	032-7630P	035-7630P
343	50±3	50±3	UV FS	031-7650P	032-7650P	035-7650P
343	70±3	30±3	UV FS	031-7670P	032-7670P	035-7670P
343	80±3	20±3	UV FS	031-7680P	032-7680P	035-7680P
800	20±3	80±3	UV FS	041-7720P	042-7720P	045-7720P
800	30±3	70±3	UV FS	041-7730P	042-7730P	045-7730P
800	50±3	50±3	UV FS	041-7750P	042-7750P	045-7750P
800	70±3	30±3	UV FS	041-7770P	042-7770P	045-7770P
800	80±3	20±3	UV FS	041-7780P	042-7780P	045-7780P
400	20±3	80±3	UV FS	041-7820P	042-7820P	045-7820P
400	30±3	70±3	UV FS	041-7830P	042-7830P	045-7830P
400	50±3	50±3	UV FS	041-7850P	042-7850P	045-7850P
400	70±3	30±3	UV FS	041-7870P	042-7870P	045-7870P
400	80±3	20±3	UV FS	041-7880P	042-7880P	045-7880P
266	20±3	80±3	UV FS	041-7920P	042-7920P	045-7920P
266	30±3	70±3	UV FS	041-7930P	042-7930P	045-7930P
266	50±3	50±3	UV FS	041-7950P	042-7950P	045-7950P
266	70±3	30±3	UV FS	041-7970P	042-7970P	045-7970P
266	80±3	20±3	UV FS	041-7980P	042-7980P	045-7980P

RELATED PRODUCTS

Uncoated Elliptical Mirrors

See page 1.8

Kinematic Mirror and Beamsplitter Mount

8 40-0030-02
See page 8.54



Adapter for Beamsplitter at 45°

840-0116
See page 8.72



Flipping Mirror/Beamsplitter Mount 840-0155

See page 8.79

