

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).

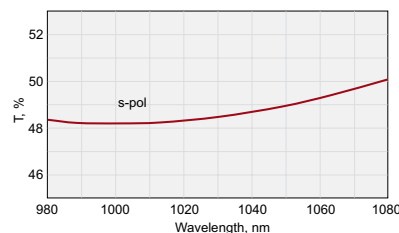
SUBSTRATE

Material	UV FS
S1 Surface Flatness	$\lambda/10$ at 633 nm
S1 Surface Quality	20-10 scratch & dig (MIL-PRF-13830B)
S2 Surface Flatness	$\lambda/10$ 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
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 \pm 3°
Back side antireflection coated	R<0.5%

Please contact us for wedged beamsplitters or choose wedged substrates from Wedge Prisms (page 1.38)



032-7450S. Rs=50% @ 1030 nm, AOI=45°

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

Laser Damage Threshold: >100 mJ/cm², 50 fsec pulse, 800 nm typical

Wavelength, nm	Reflection, %	Transmission, %	Substrate material	Catalogue number			Price, EUR
				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	105 / 125 / 205
1030	30±3	70±3	UV FS	031-7430A	032-7430A	035-7430A	105 / 125 / 205
1030	50±3	50±3	UV FS	031-7450A	032-7450A	035-7450A	105 / 125 / 205
1030	70±3	30±3	UV FS	031-7470A	032-7470A	035-7470A	105 / 125 / 205
1030	80±3	20±3	UV FS	031-7480A	032-7480A	035-7480A	105 / 125 / 205
515	20±3	80±3	UV FS	031-7520A	032-7520A	035-7520A	103 / 123 / 200
515	30±3	70±3	UV FS	031-7530A	032-7530A	035-7530A	103 / 123 / 200
515	50±3	50±3	UV FS	031-7550A	032-7550A	035-7550A	103 / 123 / 200
515	70±3	30±3	UV FS	031-7570A	032-7570A	035-7570A	103 / 123 / 200
515	80±3	20±3	UV FS	031-7580A	032-7580A	035-7580A	103 / 123 / 200
343	20±3	80±3	UV FS	031-7620A	032-7620A	035-7620A	110 / 140 / 245
343	30±3	70±3	UV FS	031-7630A	032-7630A	035-7630A	110 / 140 / 245
343	50±3	50±3	UV FS	031-7650A	032-7650A	035-7650A	110 / 140 / 245
343	70±3	30±3	UV FS	031-7670A	032-7670A	035-7670A	110 / 140 / 245
343	80±3	20±3	UV FS	031-7680A	032-7680A	035-7680A	110 / 140 / 245
800	20±3	80±3	UV FS	041-7720A	042-7720A	045-7720A	105 / 125 / 205
800	30±3	70±3	UV FS	041-7730A	042-7730A	045-7730A	105 / 125 / 205
800	50±3	50±3	UV FS	041-7750A	042-7750A	045-7750A	105 / 125 / 205
800	70±3	30±3	UV FS	041-7770A	042-7770A	045-7770A	105 / 125 / 205
800	80±3	20±3	UV FS	041-7780A	042-7780A	045-7780A	105 / 125 / 205
400	20±3	80±3	UV FS	041-7820A	042-7820A	045-7820A	103 / 123 / 200
400	30±3	70±3	UV FS	041-7830A	042-7830A	045-7830A	103 / 123 / 200
400	50±3	50±3	UV FS	041-7850A	042-7850A	045-7850A	103 / 123 / 200
400	70±3	30±3	UV FS	041-7870A	042-7870A	045-7870A	103 / 123 / 200
400	80±3	20±3	UV FS	041-7880A	042-7880A	045-7880A	103 / 123 / 200
266	20±3	80±3	UV FS	041-7920A	042-7920FA	045-7920A	115 / 145 / 265
266	30±3	70±3	UV FS	041-7930A	042-7930FA	045-7930A	115 / 145 / 265
266	50±3	50±3	UV FS	041-7950A	042-7950FA	045-7950A	115 / 145 / 265
266	70±3	30±3	UV FS	041-7970A	042-7970FA	045-7970A	115 / 145 / 265
266	80±3	20±3	UV FS	041-7980A	042-7980FA	045-7980A	115 / 145 / 265

Designed for S- polarization. Laser Damage Threshold: >100 mJ/cm², 50 fsec pulse, 800 nm typical

Wavelength, nm	Reflection, %	Transmission, %	Substrate material	Catalogue number			Price, EUR Ø12.7 / Ø25.4 / Ø50.8
				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	105 / 125 / 205
1030	30±3	70±3	UV FS	031-7430S	032-7430S	035-7430S	105 / 125 / 205
1030	50±3	50±3	UV FS	031-7450S	032-7450S	035-7450S	105 / 125 / 205
1030	70±3	30±3	UV FS	031-7470S	032-7470S	035-7470S	105 / 125 / 205
1030	80±3	20±3	UV FS	031-7480S	032-7480S	035-7480S	105 / 125 / 205
515	20±3	80±3	UV FS	031-7520S	032-7520S	035-7520S	103 / 123 / 200
515	30±3	70±3	UV FS	031-7530S	032-7530S	035-7530S	103 / 123 / 200
515	50±3	50±3	UV FS	031-7550S	032-7550S	035-7550S	103 / 123 / 200
515	70±3	30±3	UV FS	031-7570S	032-7570S	035-7570S	103 / 123 / 200
515	80±3	20±3	UV FS	031-7580S	032-7580S	035-7580S	103 / 123 / 200
343	20±3	80±3	UV FS	031-7620S	032-7620S	035-7620S	110 / 140 / 245
343	30±3	70±3	UV FS	031-7630S	032-7630S	035-7630S	110 / 140 / 245
343	50±3	50±3	UV FS	031-7650S	032-7650S	035-7650S	110 / 140 / 245
343	70±3	30±3	UV FS	031-7670S	032-7670S	035-7670S	110 / 140 / 245
343	80±3	20±3	UV FS	031-7680S	032-7680S	035-7680S	110 / 140 / 245
800	20±3	80±3	UV FS	041-7720S	042-7720S	045-7720S	105 / 125 / 205
800	30±3	70±3	UV FS	041-7730S	042-7730S	045-7730S	105 / 125 / 205
800	50±3	50±3	UV FS	041-7750S	042-7750S	045-7750S	105 / 125 / 205
800	70±3	30±3	UV FS	041-7770S	042-7770S	045-7770S	105 / 125 / 205
800	80±3	20±3	UV FS	041-7780S	042-7780S	045-7780S	105 / 125 / 205
400	20±3	80±3	UV FS	041-7820S	042-7820S	045-7820S	103 / 123 / 200
400	30±3	70±3	UV FS	041-7830S	042-7830S	045-7830S	103 / 123 / 200
400	50±3	50±3	UV FS	041-7850S	042-7850S	045-7850S	103 / 123 / 200
400	70±3	30±3	UV FS	041-7870S	042-7870S	045-7870S	103 / 123 / 200
400	80±3	20±3	UV FS	041-7880S	042-7880S	045-7880S	103 / 123 / 200
266	20±3	80±3	UV FS	041-7920S	042-7920FS	045-7920S	115 / 145 / 265
266	30±3	70±3	UV FS	041-7930S	042-7930FS	045-7930S	115 / 145 / 265
266	50±3	50±3	UV FS	041-7950S	042-7950FS	045-7950S	115 / 145 / 265
266	70±3	30±3	UV FS	041-7970S	042-7970FS	045-7970S	115 / 145 / 265
266	80±3	20±3	UV FS	041-7980S	042-7980FS	045-7980S	115 / 145 / 265

Designed for P- polarization. Laser Damage Threshold: >100 mJ/cm², 50 fsec pulse, 800 nm typical

Wavelength, nm	Reflection, %	Transmission, %	Substrate material	Catalogue number			Price, EUR Ø12.7 / Ø25.4 / Ø50.8
				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	105 / 125 / 205
1030	30±3	70±3	UV FS	031-7430P	032-7430P	035-7430P	105 / 125 / 205
1030	50±3	50±3	UV FS	031-7450P	032-7450P	035-7450P	105 / 125 / 205
1030	70±3	30±3	UV FS	031-7470P	032-7470P	035-7470P	105 / 125 / 205
1030	80±3	20±3	UV FS	031-7480P	032-7480P	035-7480P	105 / 125 / 205
515	20±3	80±3	UV FS	031-7520P	032-7520P	035-7520P	103 / 123 / 200
515	30±3	70±3	UV FS	031-7530P	032-7530P	035-7530P	103 / 123 / 200
515	50±3	50±3	UV FS	031-7550P	032-7550P	035-7550P	103 / 123 / 200
515	70±3	30±3	UV FS	031-7570P	032-7570P	035-7570P	103 / 123 / 200
515	80±3	20±3	UV FS	031-7580P	032-7580P	035-7580P	103 / 123 / 200
343	20±3	80±3	UV FS	031-7620P	032-7620P	035-7620P	110 / 140 / 245
343	30±3	70±3	UV FS	031-7630P	032-7630P	035-7630P	110 / 140 / 245
343	50±3	50±3	UV FS	031-7650P	032-7650P	035-7650P	110 / 140 / 245
343	70±3	30±3	UV FS	031-7670P	032-7670P	035-7670P	110 / 140 / 245
343	80±3	20±3	UV FS	031-7680P	032-7680P	035-7680P	110 / 140 / 245
800	20±3	80±3	UV FS	041-7720P	042-7720P	045-7720P	105 / 125 / 205
800	30±3	70±3	UV FS	041-7730P	042-7730P	045-7730P	105 / 125 / 205
800	50±3	50±3	UV FS	041-7750P	042-7750P	045-7750P	105 / 125 / 205
800	70±3	30±3	UV FS	041-7770P	042-7770P	045-7770P	105 / 125 / 205
800	80±3	20±3	UV FS	041-7780P	042-7780P	045-7780P	105 / 125 / 205
400	20±3	80±3	UV FS	041-7820P	042-7820P	045-7820P	103 / 123 / 200
400	30±3	70±3	UV FS	041-7830P	042-7830P	045-7830P	103 / 123 / 200
400	50±3	50±3	UV FS	041-7850P	042-7850P	045-7850P	103 / 123 / 200
400	70±3	30±3	UV FS	041-7870P	042-7870P	045-7870P	103 / 123 / 200
400	80±3	20±3	UV FS	041-7880P	042-7880P	045-7880P	103 / 123 / 200
266	20±3	80±3	UV FS	041-7920P	042-7920FP	045-7920P	115 / 145 / 265
266	30±3	70±3	UV FS	041-7930P	042-7930FP	045-7930P	115 / 145 / 265
266	50±3	50±3	UV FS	041-7950P	042-7950FP	045-7950P	115 / 145 / 265
266	70±3	30±3	UV FS	041-7970P	042-7970FP	045-7970P	115 / 145 / 265
266	80±3	20±3	UV FS	041-7980P	042-7980FP	045-7980P	115 / 145 / 265