Reflected wavelength, nm, R > 99.5%	Transmitted wavelength, nm	Transmission, %	AOI, deg	Substrate material	Code Ø12.7x3 mm	Code Ø25.4x6 mm	Price, EUR Ø12.7 / Ø25.4
355	1064	>95	0	UV FS	041-3100	042-3100	115 / 145
355	1064	>95	45	UV FS	041-3105	042-3105	115 / 145
355	532	>95	0	UV FS	041-3500	042-3500	115 / 145
355	532	>95	45	UV FS	041-3505	042-3505	115 / 145
355	532+1064	>90	0	UV FS	041-3510	042-3510	125 / 155
355	532+1064	>90	45	UV FS	041-3515	042-3515	125 / 155
532	1064	>95	0	BK7	031-5100	032-5100	90 / 115
532	1064	>95	45	BK7	031-5105	032-5105	90 / 115
532	1064	>95	0	UV FS	041-5100	042-5100	115 / 145
532	1064	>95	45	UV FS	041-5105	042-5105	115 / 145
1064	532	>93	0	BK7	031-6500	032-6500	95 / 120
1064	532	>93	45	BK7	031-6505	032-6505	95 / 120
1064	532	>93	0	UV FS	041-6500	042-6500	120 / 150
1064	532	>93	45	UV FS	041-6505	042-6505	120 / 150

HOUSING ACCESSORIES

Adapter for Beamsplitter at 45°
840-0116
See page 8.76

Kinematic Mirror and Beamsplitter Mount
840-0020
See page 8.58

LASER OUTPUT COUPLERS

An output coupler is a partially reflecting dielectric mirror used in a laser cavity. It transmits a part of the circulating intracavity power for generating a useful output from the laser. A low transmission output coupler leads to a low laser threshold, but also possibly to poor laser efficiency if the losses due to output coupling do not dominate over other parasitic losses in the laser cavity. The output coupler transmission is often chosen to maximize the achieved output power, although its optimum value may be lower or higher if there are other design purposes (minimizing the intracavity intensities or suppressing Q-switching instabilities in a passively mode-locked laser).

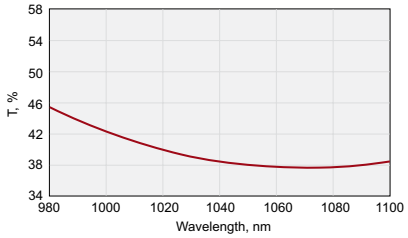
SUBSTRATE

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

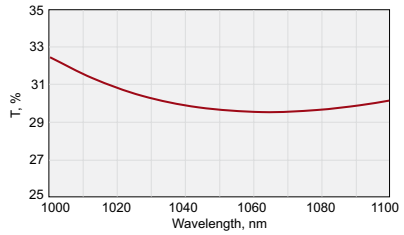
COATING

Technology	Electron beam multilayer dielectric
Adhesion and Durability	Per MIL-C-675A. Insoluble in lab solvents
Clear Aperture	Exceeds central 85% of diameter
Damage Threshold:	
BK7	>3 J/cm^2, 8 nsec pulse, 1064 nm typical
UV FS	>6 J/cm^2, 8 nsec pulse, 1064 nm typical
Coated Surface Flatness	λ/10 at 633 nm over clear aperture
Angle of Incidence	0°-8° (normal)
Back side antireflection coated	R<0.2%

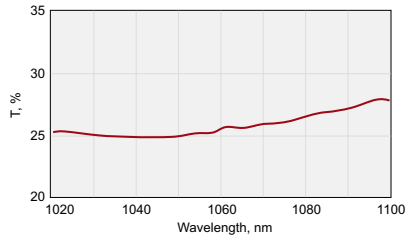
Laser Output Couplers



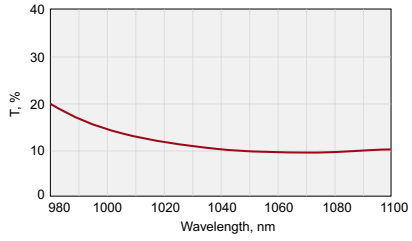
R = 60±2% @ 1064 nm, AOI=0°



R = 70±2% @ 1064 nm, AOI=0°



R = 75±3% @ 1064 nm, AOI=0°



R = 90±2% @ 1064 nm, AOI=0°

Size – **Ø12.7 × 3 mm**

Wavelength, nm	Reflection, %	Transmission, %	Substrate material	Code	Price, EUR
1064	50±3	50±3	BK7	031-0050	75
1064	60±3	40±3	BK7	031-0060	75
1064	65±3	35±3	BK7	031-0065	75
1064	70±3	30±3	BK7	031-0070	75
1064	75±3	25±3	BK7	031-0075	75
1064	80±3	20±3	BK7	031-0080	75
1064	85±3	15±3	BK7	031-0085	75
1064	90±2	10±2	BK7	031-0090	82
1064	95±2	5±2	BK7	031-0095	82
1064	97±1	3±1	BK7	031-0097	89
1064	98±1	2±1	BK7	031-0098	89
1064	99.0±0.5	1.0±0.5	BK7	031-0099	96
1064	50±3	50±3	UV FS	041-0050	95
1064	60±3	40±3	UV FS	041-0060	95
1064	65±3	35±3	UV FS	041-0065	95
1064	70±3	30±3	UV FS	041-0070	95
1064	75±3	25±3	UV FS	041-0075	95
1064	80±3	20±3	UV FS	041-0080	95
1064	85±3	15±3	UV FS	041-0085	95
1064	90±2	10±2	UV FS	041-0090	102
1064	95±2	5±2	UV FS	041-0095	102
1064	97±1	3±1	UV FS	041-0097	109
1064	98±1	2±1	UV FS	041-0098	109
1064	99.0±0.5	1.0±0.5	UV FS	041-0099	116

Size – **Ø25.4 × 6 mm**

Wavelength, nm	Reflection, %	Transmission, %	Substrate material	Code	Price, EUR
1064	50±3	50±3	BK7	032-0050	95
1064	60±3	40±3	BK7	032-0060	95
1064	65±3	35±3	BK7	032-0065	95
1064	70±3	30±3	BK7	032-0070	95
1064	75±3	25±3	BK7	032-0075	95
1064	80±3	20±3	BK7	032-0080	95
1064	85±3	15±3	BK7	032-0085	95
1064	90±2	10±2	BK7	032-0090	102
1064	95±2	5±2	BK7	032-0095	102
1064	97±1	3±1	BK7	032-0097	109
1064	98±1	2±1	BK7	032-0098	109
1064	99.0±0.5	1.0±0.5	BK7	032-0099	116
1064	50±3	50±3	UV FS	042-0050	115
1064	60±3	40±3	UV FS	042-0060	115
1064	65±3	35±3	UV FS	042-0065	115
1064	70±3	30±3	UV FS	042-0070	115
1064	75±3	25±3	UV FS	042-0075	115
1064	80±3	20±3	UV FS	042-0080	115
1064	85±3	15±3	UV FS	042-0085	115
1064	90±2	10±2	UV FS	042-0090	122
1064	95±2	5±2	UV FS	042-0095	122
1064	97±1	3±1	UV FS	042-0097	129
1064	98±1	2±1	UV FS	042-0098	129
1064	99.0±0.5	1.0±0.5	UV FS	042-0099	136

RELATED PRODUCTS

Uncoated Flat Windows
See page 1.9

Kinematic Mirror and Beamsplitter Mount 840-0020
See page 8.58