

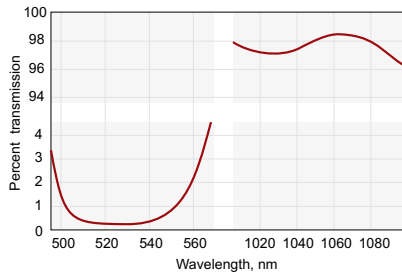
Related Products

Pellin-Broca Prisms
See page 1.52

Housing accessories

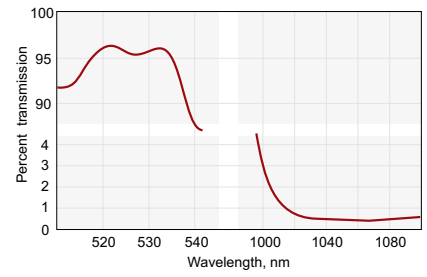
Adapter for Beamsplitter at 45° 840-0116
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Kinematic Mirror and Beamsplitter Mount 840-0020
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031-5105.

HR > 99.5% @ 532 nm, HT > 95% @ 1064 nm, AOI = 45°



031-6500.

HR > 99.5% @ 1064 nm, HT > 93% @ 532 nm, AOI = 0°

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

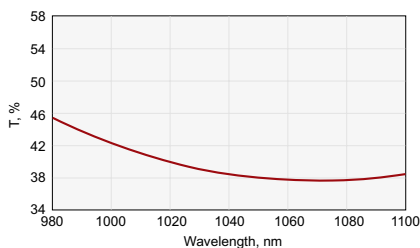
Material	UV grade Fused Silica or BK7 glass
S1 Surface Flatness	$\lambda/10$ typical at 633 nm
S1 Surface Quality	20-10 scratch & dig (MIL-PRF-13830B)
S2 Surface Flatness	$\lambda/10$ typical at 633 nm
S2 Surface Quality	20-10 scratch & dig (MIL-PRF-13830B)
Diameter Tolerance	+0.00 mm; -0.12 mm
Thickness Tolerance	± 0.25 mm
Parallelism	30 arcsec
Chamfer	0.3 mm at 45° typical

Coating

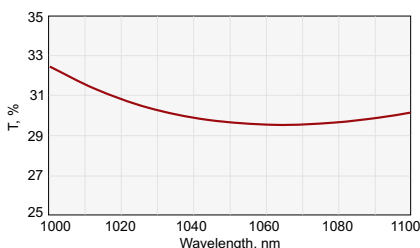
Technology	Electron beam multilayer dielectric
Adhesion and Durability	Per MIL-C-675A. Insoluble in lab solvents
Clear Aperture	Exceeds central 85% of diameter
Damage Threshold:	
BK7	>3 J/cm ² , 8 nsec pulse, 1064 nm typical
UV FS	>6 J/cm ² , 8 nsec pulse, 1064 nm typical
Coated Surface Flatness	$\lambda/10$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

LASER OUTPUT COUPLERS

Size - $\varnothing 12.7 \times 3$ mm



R = 60±2% @ 1064 nm, AOI=0°

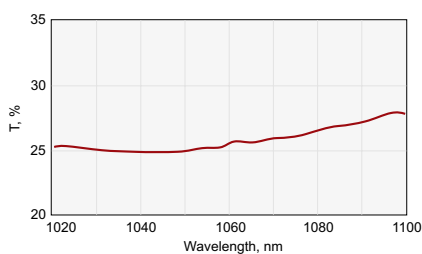
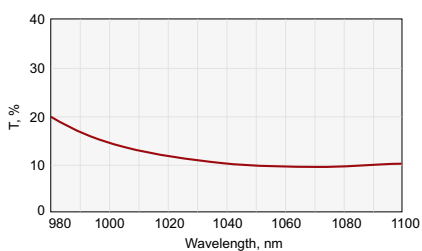


R = 70±2% @ 1064 nm, AOI=0°

Wavelength, nm	Reflection, %	Transmission, %	Substrate material	Catalogue number
1064	15±3	85±3	BK7	031-0015
1064	20±3	80±3	BK7	031-0020
1064	25±3	75±3	BK7	031-0025
1064	30±3	70±3	BK7	031-0030
1064	40±3	60±3	BK7	031-0040
1064	50±3	50±3	BK7	031-0050
1064	60±3	40±3	BK7	031-0060
1064	65±3	35±3	BK7	031-0065
1064	70±3	30±3	BK7	031-0070
1064	75±3	25±3	BK7	031-0075
1064	80±3	20±3	BK7	031-0080
1064	85±3	15±3	BK7	031-0085
1064	90±2	10±2	BK7	031-0090
1064	95±2	5±2	BK7	031-0095
1064	97±1	3±1	BK7	031-0097
1064	98±1	2±1	BK7	031-0098
1064	99.0±0.5	1.0±0.5	BK7	031-0099

Size – $\varnothing 12.7 \times 3$ mm

Wavelength, nm	Reflection, %	Transmission, %	Substrate material	Catalogue number
1064	20±3	80±3	UV FS	041-0020
1064	30±3	70±3	UV FS	041-0030
1064	40±3	60±3	UV FS	041-0040
1064	50±3	50±3	UV FS	041-0050
1064	60±3	40±3	UV FS	041-0060
1064	65±3	35±3	UV FS	041-0065
1064	70±3	30±3	UV FS	041-0070
1064	75±3	25±3	UV FS	041-0075
1064	80±3	20±3	UV FS	041-0080
1064	85±3	15±3	UV FS	041-0085
1064	90±2	10±2	UV FS	041-0090
1064	95±2	5±2	UV FS	041-0095
1064	97±1	3±1	UV FS	041-0097
1064	98±1	2±1	UV FS	041-0098
1064	99.0±0.5	1.0±0.5	UV FS	041-0099


 $R = 75 \pm 3\% @ 1064 \text{ nm}, \text{AOI} = 0^\circ$

 $R = 90 \pm 2\% @ 1064 \text{ nm}, \text{AOI} = 0^\circ$

 Size – $\varnothing 25.4 \times 6$ mm

Wavelength, nm	Reflection, %	Transmission, %	Substrate material	Catalogue number
1064	15±3	85±3	BK7	032-0015
1064	20±3	80±3	BK7	032-0020
1064	25±3	75±3	BK7	032-0025
1064	30±3	70±3	BK7	032-0030
1064	40±3	60±3	BK7	032-0040
1064	50±3	50±3	BK7	032-0050
1064	60±3	40±3	BK7	032-0060
1064	65±3	35±3	BK7	032-0065
1064	70±3	30±3	BK7	032-0070
1064	75±3	25±3	BK7	032-0075
1064	80±3	20±3	BK7	032-0080
1064	85±3	15±3	BK7	032-0085
1064	90±2	10±2	BK7	032-0090
1064	95±2	5±2	BK7	032-0095
1064	97±1	3±1	BK7	032-0097
1064	98±1	2±1	BK7	032-0098
1064	99.0±0.5	1.0±0.5	BK7	032-0099
1064	15±3	85±3	UV FS	042-0015
1064	20±3	80±3	UV FS	042-0020
1064	25±3	75±3	UV FS	042-0025
1064	30±3	70±3	UV FS	042-0030
1064	40±3	60±3	UV FS	042-0040
1064	50±3	50±3	UV FS	042-0050
1064	60±3	40±3	UV FS	042-0060
1064	65±3	35±3	UV FS	042-0065
1064	70±3	30±3	UV FS	042-0070
1064	75±3	25±3	UV FS	042-0075
1064	80±3	20±3	UV FS	042-0080
1064	85±3	15±3	UV FS	042-0085
1064	90±2	10±2	UV FS	042-0090
1064	95±2	5±2	UV FS	042-0095
1064	97±1	3±1	UV FS	042-0097
1064	98±1	2±1	UV FS	042-0098
1064	99.0±0.5	1.0±0.5	UV FS	042-0099

Related Products

Uncoated Flat Windows See page 1.9

Kinematic Mirror and Beamsplitter Mount 840-0020

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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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