

Broadband Hybrid Cube Beamsplitters

Cube beamsplitters are recommended for use with collimated or nearly collimated light. Convergent or divergent beams will contribute unwanted spherical aberration to an optical system. Cube beamsplitters consist of matched pairs of right angle prisms cemented together. The hypotenuse of one prism has a partial reflecting coating. A black dot on the ground side of the prism indicated which prism has the partial reflector on the hypotenuse. The incident beam must enter the prism containing the partial reflector first.

- A hybrid metal dielectric coating exhibits moderate absorption with little polarization sensitivity.
- These beamsplitters are fairly insensitive to changes in angle of incidence
- Optical adhesive contact
- Performance is relatively flat across a large spectral band



BSC broadband hybrid cube beamsplitters

Broadband Hybrid Cube Beamsplitters, Ultraviolet



Broadband hybrid cube beamsplitter for 250-400 nm

SPECIFICATIONS:

Broadband Hybrid Cube Beamsplitters, Ultraviolet

43% \pm 6% for 280–400 nm wavelength
range;
38% \pm 6% for 250–280 nm wavelength
range;
s- and p-components matched to within 5%
for both ranges
λ /4 per clear aperture at 632.8 nm
<10 arc minutes
<24%
<1% reflectance (entrance and exit faces)
UV-grade synthetic fused silica
$A \pm 0.3 \text{ mm}$
40-20 scratch and dig, beveled edges



Broadband Hybrid Cube Beamsplitters, Ultraviolet

Wavelength Range	А	CA	
(nm)	(mm)	(mm)	PART NUMBER
250–400	12.7	11.4 × 11.4	BSC-250-400-050
250–400	25.4	22.9 × 22.9	BSC-250-400-100





BSC

Windows

Prisms and Retroreflectors

Spherica

Cylindrical

Multielement

Mirrors

Beamsplitters

Waveplates

Polarization Components

Femtosecond Components

Lenses

Lenses

Lenses

Broadband Hybrid Cube Beamsplitters, Visible



Broadband hybrid cube beamsplitter for 450-700 nm

SPECIFICATIONS: Broadband Hybrid Cube Beamsplitters, Visible

Transmission	45% ± 6%
Surface Flatness	$\lambda/2$ per clear aperture at 632.8 nm
Transmitted Beam Deviation	<10 arc minutes
Absorption	<10%
Clear Aperture	90% of central area
Coating	HEBBAR [™] antireflection coating
	(entrance and exit faces)
Material	N-BK7
Edge Dimensions	$A \pm 0.3 \text{ mm}$
Surface Quality	60-40 scratch and dig,
	beveled edges

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Broadband Hybrid Cube Beamsplitters, Visible

Wavelength Range	А	CA	
(nm)	(mm)	(mm)	PART NUMBER
450–700	10.0	9.0 × 9.0	BSC-450-700-040
450-700	12.7	11.4 × 11.4	BSC-450-700-050
450-700	20.0	18.0 × 18.0	BSC-450-700-080
450–700	25.4	22.9 × 22.9	BSC-450-700-100

Broadband Hybrid Cube Beamsplitters, Near Infrared



Broadband hybrid cube beamsplitter for 700-1000 nm

SPECIFICATIONS: Broadband Hybrid Cube Beamsr

Broadband Hybrid Cube Beamsplitters, Near Infrared

Transmission	45% ± 6%
Surface Flatness	$\lambda/2$ per clear aperture at 632.8 nm
Transmitted Beam Deviation	<10 arc minutes
Absorption	<10%
Clear Aperture	90% of central area
Coating	HEBBAR [™] antireflection coating
	(entrance and exit faces)
Material	N-BK7
Edge Dimensions	$A \pm 0.3 \text{ mm}$
Surface Quality	60-40 scratch and dig,
	beveled edges

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Broadband Hybrid Cube Beamsplitters, Near Infrared

Wavelength Range	А	CA	
(nm)	(mm)	(mm)	PART NUMBER
700–1000	12.7	11.4 × 11.4	BSC-700-1000-050
700–1000	25.4	22.9 × 22.9	BSC-700-1000-100



Filters and Etalons