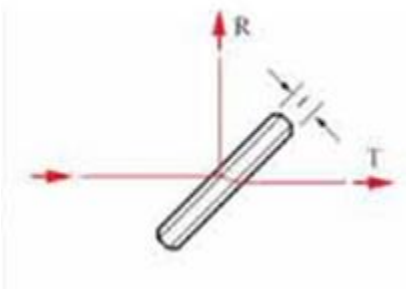
Photonchina's beamsplitters are used to split or combine beams of light. Plates are used for most laser applications as they exhibit low absorption. Cubes are a convenient, protected form for low power applications. The performance of a beamsplitter is mainly dependent on the coating specifications.

BEAMSPLITTER	SPECTRUM	PROPERTIES
BEAMSPLITTER PLATE	Broadband Wavelength	Beamsplitter plates can be used with high power lasers. When using beamsplitter plates, it is important to bear in mind that the two partial beams travel different optical paths. The optical paths depend on the incident angle and the thickness of the plates.
	Single Wavelength	
BEAMSPLITTER CUBE	Broadband Wavelength	Compare with beamsplitter plates, beamsplitter cubes have the following advantages: -Identical path lengths for both the reflected and the transmitted beams -The transmitted beam is neither display nor deflected -Stable and compact -Easy operation -Easy to mount / align
	Single Wavelength	
PENTA BEAMSPLITTER CUBE	Broadband Wavelength 630-680nm T/R: 20%/80% ±5%Single Wavelength	The penta beamsplitter is composed of a penta prism and a wedge. Like the beamsplitter cube, it has the following properties: -The transmitted beam is neither display nor deflected - Stable and compact -Easy operation
POLARIZING BEAMSPLITTER CUBE	Broadband Wavelength	The prism can be used as polarizers, beamsplitters, or beam combiners. The output beam, which is parallel to the input beam, is called a p-polarized beam while the orthoganal output beam is defined as the s-polarized beam.
	Single Wavelength	

BEAMSPLITTER PLATES CAPABILITY

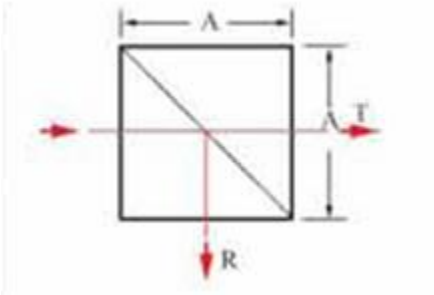
ATTRIBUTE	STANDARD	PREMIUM
MATERIAL	BK7	BK7
DIMENSION TOLERANCE	±0.1mm	±0.02mm
THICKNESS TOLERANCE	±0.1mm	±0.02mm
FLATNESS	Per 25.4mm λ/4 @ 632.8nm	Per 25.4mm λ/10 @ 632.8nm
SURFACE QUALITY	60-40 scratch and dig	10-5 scratch and dig
PARALLELISM	<20 arc seconds	<5 arc seconds
T/R	T=(Ts+Tp)/2, R=(Rs+Rp)/2 T/R=50/50, 80/20, 70/30, 90/10, 60/40 ±5% @ λ c or λ b	T=(Ts+Tp)/2, R=(Rs+Rp)/2 T/R=50/50, 80/20, 70/30, 90/10, 60/40 ±3% @ λ c or λ b
COATING	λ c: Single wavelength, λ b: Broadband wavelength	



BEAMSPLITTER CUBES CAPABILITY

ATTRIBUTE	STANDARD	PREMIUM
MATERIAL	BK7	BK7
DIMENSION TOLERANCE	±0.2mm	±0.1mm
FLATNESS	Per 25.4mm λ/4 @ 632.8nm	Per 25.4mm λ/10 @ 632.8nm
SURFACE QUALITY	60-40 scratch and dig	20-10 scratch and dig
T/R	50/50 ±5%	50/50 ±2%

BEAM DEVIATION	<3arc minutes	<30arc seconds
COATING	Specified wavelength or T/R	Specified wavelength or T/R



POLARIZING BEAMSPLITTER (BPS) CAPABILITY

ATTRIBUTE	STANDARD	PREMIUM
MATERIAL	BK7, SF2	BK7, SF2
DIMENSION TOLERANCE	±0.2mm	±0.1mm
SURFACE QUALITY	60-40	20-10
BEAM DEVIATION	<3arc minutes	<30arc seconds
EXTINCTION RATIO	100:1	Specify
PRINCIPAL TRANSMITTANCE	Tp>95%, Ts<1%	Specify
PRINCIPAL REFLECTANCE	Rs>99%, Rp<5%	Specify
COATING	AR on all input and output surfaces BPS. Coating on hypotenuse (broadband wavelength: 450-680, 650-850, 900-1200nm, etc.)	Specify