

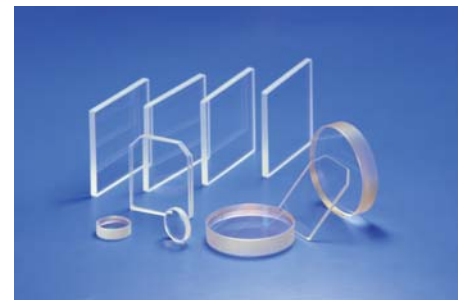
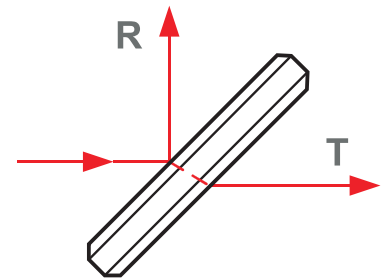


Beamsplitter

Beamsplitter Plate

Specifications

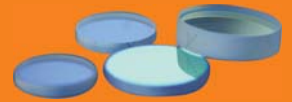
Material	BK7 Grade A
Dimension Tolerance	+0.0/-0.2mm
Thickness Tolerance	±0.2mm
Clear Aperture	>90%
Parallelism	<1 arc minute
Surface Quality	60/40 scratch and dig
Flatness	<λ/4@633nm per 25mm
Chamfer	Protected<0.5mmx45deg
T/R	50/50±5%, for natural light $T=(T_s+T_p)/2$, $R=(R_s+R_p)/2$
Coating(AOI=45deg)	S1: Partial reflectance coating S2: AR coating
Damage Threshold	>1J/cm ² , 20ns, 20Hz, @1064nm



Standard Product

Part No.	Material	Dimension(mm)	T/R	Wavelength (nm)	AOI(Deg)	Polarization
BSP0112-4S	BK7	12.7*12.7*3.0	50:50±5%	450-650	45	Avg
BSP0112-4R	BK7	Φ12.7*3.0	50:50±5%	450-650	45	Avg
BSP0125-4S	BK7	25.4*25.4*3.0	50:50±5%	450-650	45	Avg
BSP0125-4R	BK7	Φ25.4*3.0	50:50±5%	450-650	45	Avg
BSP0150-4S	BK7	50.8*50.8*3.0	50:50±5%	450-650	45	Avg
BSP0150-4R	BK7	Φ50.8*3.0	50:50±5%	450-650	45	Avg
BSP0112-6S	BK7	12.7*12.7*3.0	50:50±5%	650-900	45	Avg
BSP0112-6R	BK7	Φ12.7*3.0	50:50±5%	650-900	45	Avg
BSP0125-6S	BK7	25.4*25.4*3.0	50:50±5%	650-900	45	Avg
BSP0125-6R	BK7	Φ25.4*3.0	50:50±5%	650-900	45	Avg
BSP0150-6S	BK7	50.8*50.8*3.0	50:50±5%	650-900	45	Avg
BSP0150-6R	BK7	Φ50.8*3.0	50:50±5%	650-900	45	Avg
BSP0112-9S	BK7	12.7*12.7*3.0	50:50±5%	900-1200	45	Avg
BSP0112-9R	BK7	Φ12.7*3.0	50:50±5%	900-1200	45	Avg
BSP0125-9S	BK7	25.4*25.4*3.0	50:50±5%	900-1200	45	Avg
BSP0125-9R	BK7	Φ25.4*3.0	50:50±5%	900-1200	45	Avg
BSP0150-9S	BK7	50.8*50.8*3.0	50:50±5%	900-1200	45	Avg
BSP0150-9R	BK7	Φ50.8*3.0	50:50±5%	900-1200	45	Avg

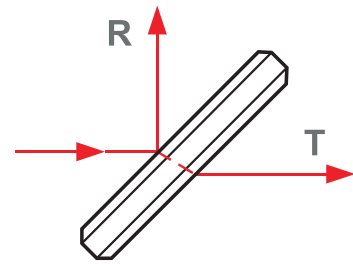
Note: Other T/R such as 30/70 and 20/80 can be offered upon request.



Nd:YAG Laser Beamsplitter Plate

Specifications

Material	BK7 Grade A , UV grade Fused Silica
Dimension Tolerance	+0.0/-0.2mm
Thickness Tolerance	±0.2mm
Clear Aperture	>90%
Parallelism	<30 arc seconds
Surface Quality	60/40 scratch and dig
Flatness	<λ/4@633nm per 25mm
Chamfer	Protected <0.5mmx45deg
T/R	50/50±5% at specific polarization state
Coating(AOI=45deg)	S1: Partial reflectance coating S2: AR coating
Damage Threshold	>5J/cm ² , 20ns, 20Hz, @1064nm



Standard Product

Part No.	Material	Dimension (mm)	T/R	Wavelength (nm)	AOI(Deg)
NLB0012-1	BK7	Φ12.7*3.0	50:50±5%	1064	45
NLB0025-1	BK7	Φ25.4*3.0	50:50±5%	1064	45
NLB0050-1	BK7	Φ50.8*3.0	50:50±5%	1064	45
NLB0012-5	BK7	Φ12.7*3.0	50:50±5%	532	45
NLB0025-5	BK7	Φ25.4*3.0	50:50±5%	532	45
NLB0050-5	BK7	Φ50.8*3.0	50:50±5%	532	45
NLB1012-3	UVFS	Φ12.7*3.0	50:50±5%	355	45
NLB1025-3	UVFS	Φ25.4*3.0	50:50±5%	355	45
NLB1050-3	UVFS	Φ50.8*3.0	50:50±5%	355	45

Order Information

NLB0025-5

P



Part No.-Design Polarization

Design Polarization

P: P Polarization state

S: S Polarization state

Avg: Average, $T=(T_p+T_s)/2$, $R=(R_p+R_s)/2$

Optical Material

Lens

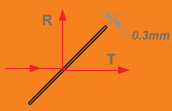
Window

Mirror

Beamsplitter

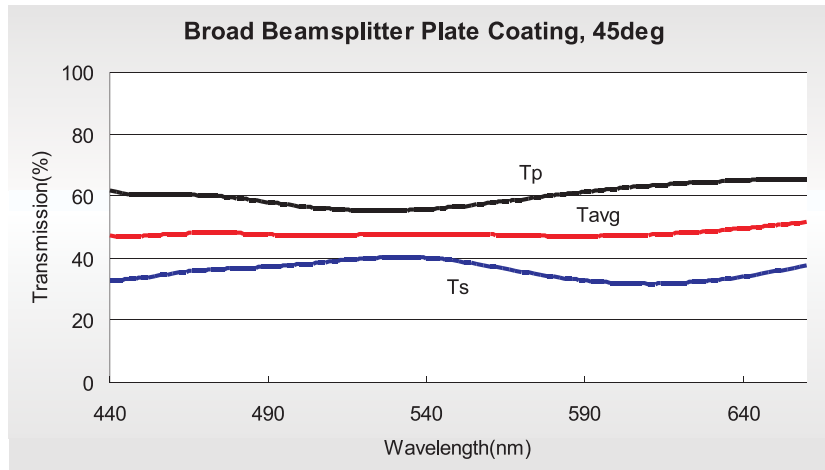
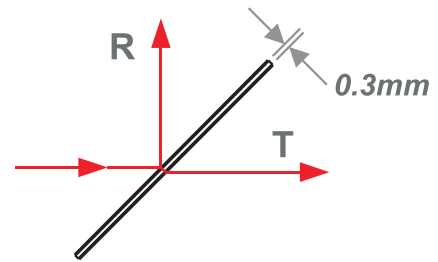
Prism

Filter



Ultra Thin Beamsplitter Plate

- Minimize Beam Displacement
- Eliminate Ghost Image
- Easy to Handle With Mount
- Custom Size Available



Specifications

Material	BK7
Dimension	Mount Diameter 25.4+0.0/-0.2mm
Thickness	6.0±0.2mm for Mount, 0.3±0.05mm for Beamsplitter plate
Beam Displacement	0.1mm
Clear Aperture	18mm
Surface Quality	60/40 scratch and dig
Parallelism	<5 arc minutes
Transmitted Wavefront Distortion	< λ / 10 @ 632.8nm
T/R	50/50±5%, for natural light $T=(Ts+Tp)/2$, $R=(Rs+Rp)/2$
Coating(AOI=45deg)	S1: Partial reflectance coating S2: AR coating
Damage Threshold	>1J/cm ² , 20ns, 20Hz, @1064nm

Standard Product

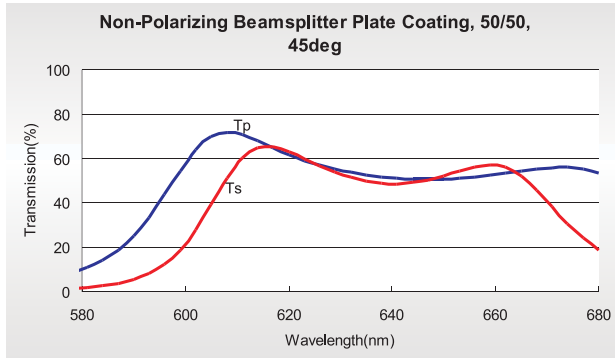
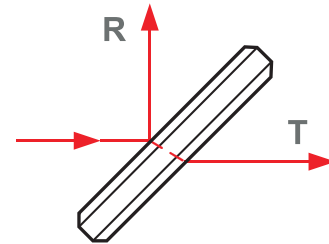
Part No.	Material	OD(mm)	CA*T (mm)	T/R	Wavelength (nm)	AOI(Deg)	Polarization
UTB0020-4	BK7	Φ25.4*6.0	18*0.3	50:50±5%	450-650	45	Avg
UTB0020-6	BK7	Φ25.4*6.0	18*0.3	50:50±5%	650-900	45	Avg
UTB0020-9	BK7	Φ25.4*6.0	18*0.3	50:50±5%	900-1200	45	Avg

Note: Other T/R and custom wavelength can be offered upon request.



Non-Polarizing Beamsplitter Plate

- All Dielectric Coating
- High Damage Threshold
- T/R=50:50, |Rs-Rp|<5%
- Custom Design Available



Specifications

Material	BK7 Grade A optical glass
Dimension Tolerance	±0.2mm
Clear Aperture	>90%
Flatness	λ/4@632.8nm
Beam Deviation	<3 arc minutes
Surface Quality	60/40 scratch and dig
T/R	50/50±5%
Polarization	Rs-Rp <5%
Coating(AOI=45deg)	S1: Non-polarizing beamsplitter coating S2: AR coating
Damage Threshold	>3J/cm ² , 20ns, 20Hz, @1064nm

Standard Product

Part No.	Material	Dimension(mm)	T/R	Wavelength(nm)	AOI(Deg)
NBP0112-5	BK7	Φ12.7*3.0	50:50±5%	532	45
NBP0125-5	BK7	Φ25.4*3.0	50:50±5%	532	45
NBP0150-5	BK7	Φ50.8*3.0	50:50±5%	532	45
NBP0112-6	BK7	Φ12.7*3.0	50:50±5%	633	45
NBP0125-6	BK7	Φ25.4*3.0	50:50±5%	633	45
NBP0150-6	BK7	Φ50.8*3.0	50:50±5%	633	45
NBP0112-1	BK7	Φ12.7*3.0	50:50±5%	1064	45
NBP0125-1	BK7	Φ25.4*3.0	50:50±5%	1064	45
NBP0150-1	BK7	Φ50.8*3.0	50:50±5%	1064	45

Note: Other T/R and custom wavelength can be offered upon request.

Optical Material

Lens

Window

Mirror

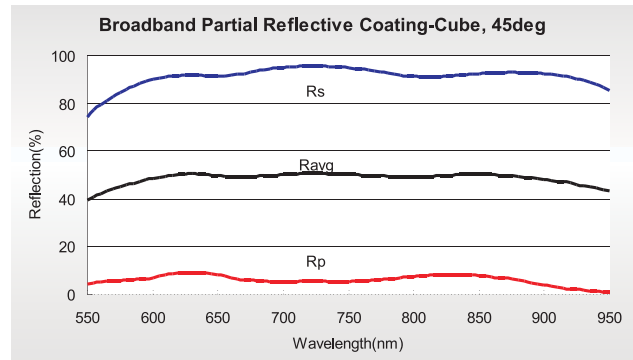
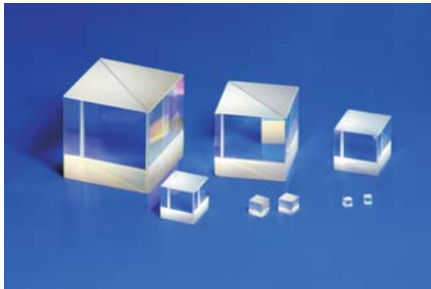
Beamsplitter

Prism

Filter

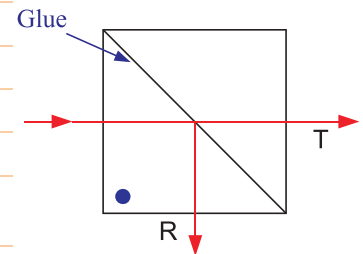


Beamsplitter Cube



Specifications

Material	BK7 Grade A optical glass
Dimension Tolerance	±0.2mm
Clear Aperture	>90%
Flatness	λ/4@632.8nm
Beam Deviation	<3 arc minutes
Surface Quality	60/40 scratch and dig
Coating	Partial reflectance on hypotenuse face AR coating on all entrances
T/R	50/50±5%, T=(Ts+Tp)/2, R=(Rs+Rp)/2
Damage Threshold	>500mJ/cm ² , 20ns, 20Hz, @1064nm



Standard Product

Part No.	Material	Dimension(mm)	T/R	Wavelength(nm)	Polarization
BSC0105-4	BK7	5.0*5.0*5.0	50:50±5%	450-650	Avg
BSC0110-4	BK7	10.0*10.0*10.0	50:50±5%	450-650	Avg
BSC0112-4	BK7	12.7*12.7*12.7	50:50±5%	450-650	Avg
BSC0115-4	BK7	15.0*15.0*15.0	50:50±5%	450-650	Avg
BSC0120-4	BK7	20.0*20.0*20.0	50:50±5%	450-650	Avg
BSC0125-4	BK7	25.4*25.4*25.4	50:50±5%	450-650	Avg
BSC0105-6	BK7	5.0*5.0*5.0	50:50±5%	650-900	Avg
BSC0110-6	BK7	10.0*10.0*10.0	50:50±5%	650-900	Avg
BSC0112-6	BK7	12.7*12.7*12.7	50:50±5%	650-900	Avg
BSC0115-6	BK7	15.0*15.0*15.0	50:50±5%	650-900	Avg
BSC0120-6	BK7	20.0*20.0*20.0	50:50±5%	650-900	Avg
BSC0125-6	BK7	25.4*25.4*25.4	50:50±5%	650-900	Avg
BSC0105-9	BK7	5.0*5.0*5.0	50:50±5%	900-1200	Avg
BSC0110-9	BK7	10.0*10.0*10.0	50:50±5%	900-1200	Avg
BSC0112-9	BK7	12.7*12.7*12.7	50:50±5%	900-1200	Avg
BSC0115-9	BK7	15.0*15.0*15.0	50:50±5%	900-1200	Avg
BSC0120-9	BK7	20.0*20.0*20.0	50:50±5%	900-1200	Avg
BSC0125-9	BK7	25.4*25.4*25.4	50:50±5%	900-1200	Avg

Optical Material

Lens

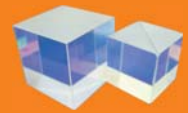
Window

Mirror

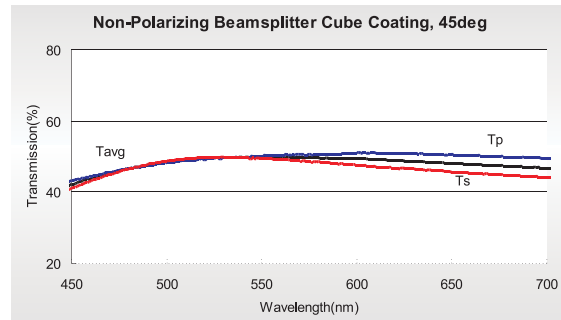
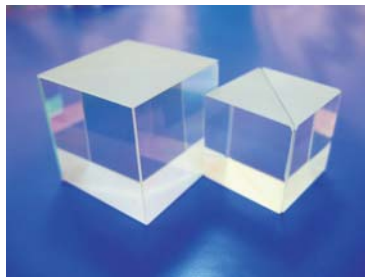
Beamsplitter

Prism

Filter

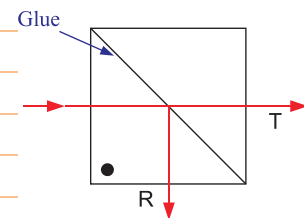


Non-Polarizing Beamsplitter Cube



Specifications

Material	BK7 Grade A optical glass
Dimension Tolerance	±0.2mm
Clear Aperture	>90%
Flatness	$\lambda/4@632.8\text{nm}$
Beam Deviation	<3 arc minutes
Surface Quality	60/40 scratch and dig
Absorption	<10%
Transmission	45%±5%
Polarization	<6%
Coating	Non-polarizing beamsplitter coating on hypotenuse face AR coating on all entrances
Damage Threshold	>100mJ/cm ² , 20ns, 20Hz, @1064nm



Standard Product

Part No.	Material	Dimension(mm)	T/R	Wavelength(nm)
NPB0105-5	BK7	5.0*5.0*5.0	45:45±5%	532
NPB0110-5	BK7	10.0*10.0*10.0	45:45±5%	532
NPB0112-5	BK7	12.7*12.7*12.7	45:45±5%	532
NPB0115-5	BK7	15.0*15.0*15.0	45:45±5%	532
NPB0120-5	BK7	20.0*20.0*20.0	45:45±5%	532
NPB0125-5	BK7	25.4*25.4*25.4	45:45±5%	532
NPB0105-6	BK7	5.0*5.0*5.0	45:45±5%	633
NPB0110-6	BK7	10.0*10.0*10.0	45:45±5%	633
NPB0112-6	BK7	12.7*12.7*12.7	45:45±5%	633
NPB0115-6	BK7	15.0*15.0*15.0	45:45±5%	633
NPB0120-6	BK7	20.0*20.0*20.0	45:45±5%	633
NPB0125-6	BK7	25.4*25.4*25.4	45:45±5%	633
NPB0105-7	BK7	5.0*5.0*5.0	45:45±5%	780
NPB0110-7	BK7	10.0*10.0*10.0	45:45±5%	780
NPB0112-7	BK7	12.7*12.7*12.7	45:45±5%	780
NPB0115-7	BK7	15.0*15.0*15.0	45:45±5%	780
NPB0120-7	BK7	20.0*20.0*20.0	45:45±5%	780
NPB0125-7	BK7	25.4*25.4*25.4	45:45±5%	780

Optical Material

Lens

Window

Mirror

Beamsplitter

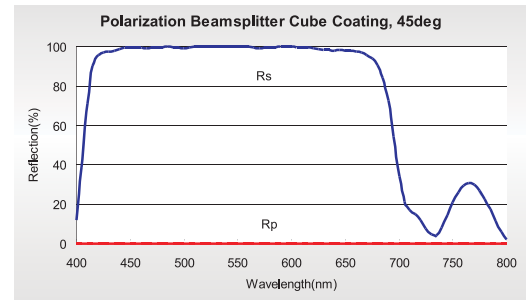
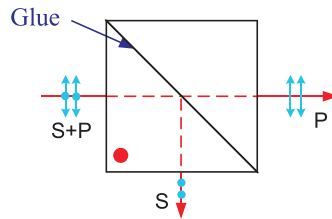
Prism

Filter



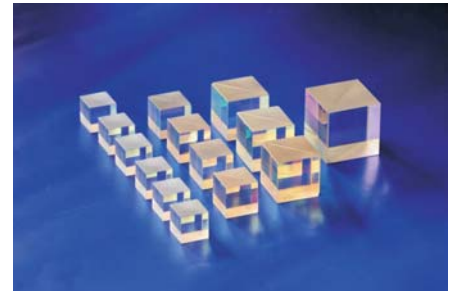
Polarization Beamsplitter Cube

- Widely used in most application
- Good Extinction Ratio
- RoHS Compliant



Specifications

Material	BK7, SF glass
Dimension Tolerance	±0.2mm
Extinction Ratio	>100:1 for broadband >500:1 for narrow band
Surface Quality	60/40 scratch and dig
Clear Aperture	>90%
Beam Deviation	<3 arc minutes
Flatness	$\lambda/4@632.8\text{nm}$ per 25mm
Principal Transmittance	Narrow: $T_p > 95\%$ and $T_s < 1\%$; Broad: $T_p > 90\%$ and $T_s < 1\%$
Principal Reflectance	Narrow: $R_s > 99\%$ and $R_p < 5\%$; Broad: $R_s > 99\%$ and $R_p < 10\%$
Coating	Polarization beamsplitter coating on hypotenuse face AR coating on all input and output faces
Damage Threshold	>500mJ/cm ² , 20ns, 20Hz, @1064nm



Standard Product

Part No.	Material	Dimension(mm)	Bandwidth	Tp/Ts
PBS0105	BK7	5.0*5.0*5.0	Narrow	>500:1
PBS0110	BK7	10.0*10.0*10.0	Narrow	>500:1
PBS0112	BK7	12.7*12.7*12.7	Narrow	>500:1
PBS0115	BK7	15.0*15.0*15.0	Narrow	>500:1
PBS0120	BK7	20.0*20.0*20.0	Narrow	>500:1
PBS0125	BK7	25.4*25.4*25.4	Narrow	>500:1
PBS9105	SF Glass	5.0*5.0*5.0	Broadband	>100:1
PBS9110	SF Glass	10.0*10.0*10.0	Broadband	>100:1
PBS9112	SF Glass	12.7*12.7*12.7	Broadband	>100:1
PBS9115	SF Glass	15.0*15.0*15.0	Broadband	>100:1
PBS9120	SF Glass	20.0*20.0*20.0	Broadband	>100:1
PBS9125	SF Glass	25.4*25.4*25.4	Broadband	>100:1

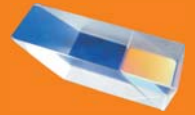
Order Information

PBS9105 — **450-650nm** ↻ Part No.-Wavelength

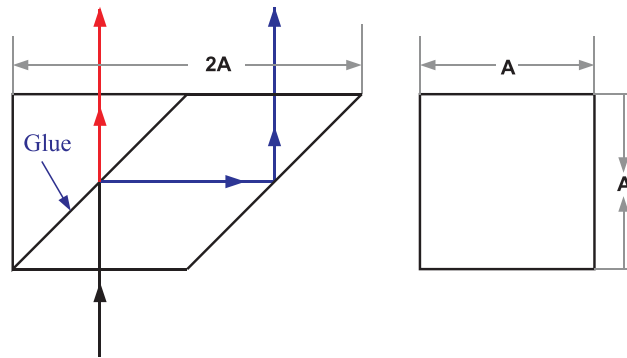
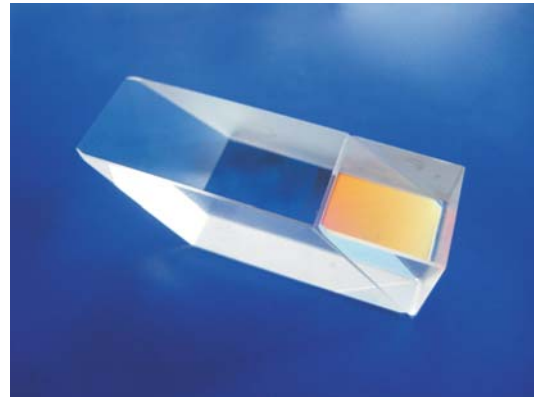
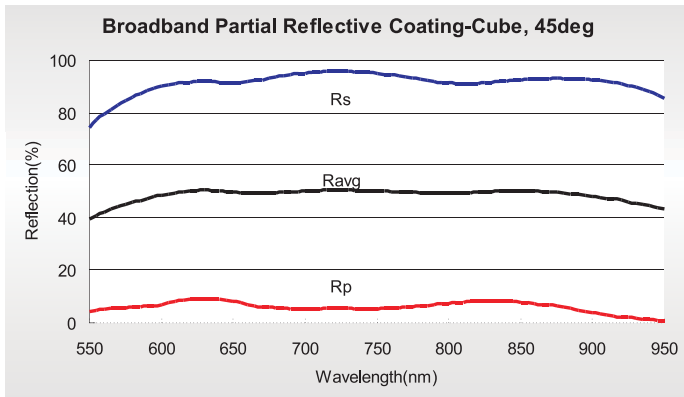
Frequently Used Wavelength

Narrow Band: 397, 405, 488, 515, 532, 632.8, 780, 1064, 1550nm

Broadband: 450-650, 650-900, 900-1200nm



Lateral Displacement Beamsplitter



Specifications

Material	BK7 Grade A optical glass
Dimension Tolerance	±0.2mm
Clear Aperture	>90%
Flatness	$\lambda/4@632.8\text{nm}$
Beam Deviation	<3 arc minutes
Surface Quality	60/40 scratch and dig
Coating	Partial reflectance on cemented surfaces AR coating on all entrances
T/R	50/50±5%, $T=(T_s+T_p)/2$, $R=(R_s+R_p)/2$
Damage Threshold	>500mJ/cm ² , 20ns, 20Hz, @1064nm

Standard Product

Part No.	Material	A(mm)	T/R	Wavelength(nm)	Polarization
LDB0112-4	BK7	12.7	50:50±5%	450-650	Avg
LDB0125-4	BK7	25.4	50:50±5%	450-650	Avg
LDB0112-6	BK7	12.7	50:50±5%	650-900	Avg
LDB0125-6	BK7	25.4	50:50±5%	650-900	Avg
LDB0112-9	BK7	12.7	50:50±5%	900-1200	Avg
LDB0125-9	BK7	25.4	50:50±5%	900-1200	Avg

Optical Material

Lens

Window

Mirror

Beamsplitter

Prism

Filter