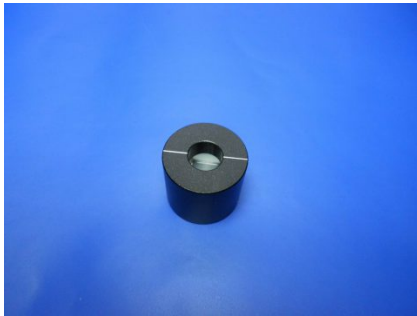




Glan Thompson Polarizer



Glan Thompson Polarizer is made of two α -BBO or calcite prisms cemented together. It has a wavelength from 200nm to 2300nm. α -BBO polarizer can be used from about 200nm to 1100nm, and calcite polarizer can be used from 350nm to 2300nm. This type polarizer has higher extinction ratio than air spaced polarizer. And it has the widest field angle of any design. For example, α -BBO Glan Thompson Polarizer has an angular field larger than 15 degree.



Glan Thompson Polarizer

Glan Thompson polarizer is made of two calcite prisms or a α -BBO prisms cemented together. Two types of Glan Thompsons are available. One is the standard form and the other is the long form. Their length to aperture ratios are 2.5 : 1 and 3.0 : 1 respectively. Glan Thompsons tend to have higher extinction ratio than air spaced polarizers. In the ultra violet spectrum, their transmission is limited by absorption in birefringent materials as well as the cement layer. α -BBO polarizers and Calcite polarizers can be used from about 220 to 900nm and 350 to 2300 nm respectively. The polarizers have the widest field angle of any design. The standard form of this polarizer with 2.5:1 length to aperture ratio has a full acceptance cone angle of more than 15 ° @ 589nm, symmetric about the input axis, whilst the long form with 3:1 ratio has a field angle >26 ° . The polarized field F1 and F2 of all these is shown in the plot below.

Glan Thompson Polarizer Features:

- Cemented
- Wide Acceptance Angle Field
- Suitable for Low Power Application

Specifications:

Attribute	Specification
Material:	α -BBO, Calcite
Wavelength Range:	α -BBO : 200-1100nm, Calcite : 350-2300nm
Extinction Ratio :	α -BBO : $<5 \times 10^{-6}$, Calcite : $<5 \times 10^{-6}$
Surface Quality :	20/10 Scratch/Dig
Beam Deviation:	<3 arc minutes
Wave front Distortion:	$\lambda/4@633\text{nm}$
Damage Threshold :	$>200\text{MW/cm}^2$
Coating :	Single Layer MgF2
Holder :	Black Anodized Aluminum

BBO Glan Thompson Polarizer

Par. No.	Wavelength Range(nm)	Extinction Ratio	Angular Field(°)	C.A.(φa) ±0.1(mm)	O.D.(φd) ±0.1(mm)	L±0.1 (mm)
PGM6006	200-2300nm (Coating@1300nm)	<5×10 ⁻⁵	> 15°	6.0	15.0	18.6
PGM6008				8.0	25.4	21.8
PGM6010				10.0	25.4	25.5
PGM6015				15.0	30.0	34.3
PGM6020				20.0	38.0	43.5

Calcite Glan Thompson Polarizer

Par. No.	Wavelength Range(nm)	Extinction Ratio	Angular Field(°)	C.A.(φa) ±0.1(mm)	O.D.(φd) ±0.1(mm)	L±0.1 (mm)
PGM7106	350-2300nm (Coating@1300nm)	<5×10 ⁻⁶	14-16°	6.0	15.0	23.0
PGM7108				8.0	25.4	28.0
PGM7110				10.0	25.4	33.0
PGM7115				15.0	30.0	45.5
PGM7206	350-2300nm (Coating@1300nm)	<5×10 ⁻⁶	25-28°	6.0	15.0	26.0
PGM7208				8.0	25.4	32.0
PGM7210				10.0	25.4	38.0
PGM7215				15.0	30.0	53.0

Note: Order based on client requirement, including non-standard product and holder.

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