

# **Glan-Taylor Polarizers**

### **Product Description:**

A Glan–Taylor prism is made of two birefringent wedges which are separated on their long surfaces with an air gap. By arranging optical axes parallel to the plane of entrance, total internal reflection of s-polarized light at the air-gap ensures that only p-polarized light is transmitted by the device. Because the incident angle at the gap can be reasonably close to Brewster's angle, a considerable increase in transmission is obtained. The Glan–Taylor prism does not have escape windows and it is suitable for low to medium power applications

You may refer to this page (http://www.pmoptics.com/crystals.html) for material properties



#### **Features:**

- High Polarization Purity
- High Transmittance
- Wide wavelength Range
- Air-Spaced without escape windows for low to medium power applications
- Cutting angle close to Brewster's angle
- e-ray passing through with little deviation

#### **Specifications:**

Materials	Alpha-BBO (190~3500nm) Calcite (350~2300nm) YVO4 (450~5000nm)			
Dimensional Tolerance	±0.1mm			
Entiration Datio	Alpha-BBO, YVO4 $< 1 \times 10^{-6}$			
Extinction Ratio	Calcite $< 5 \times 10^{-5}$			
Transmittance	Tp>95%			

Flatness	λ/4 @ 632.8nm			
Surface Quality	20~10			
Beam Deviation (o-ray)	< 3 arc minutes			
AR coating	Single Layer MgF2 on input and output			
	surfaces			
Mount	Black Anodized Aluminum			

## **Ordering Information:**



Α	Wavelength	01 = 200 ~ 270 nm for Alpha-BBO		
		02 = 270 ~ 400 nm for Alpha-BBO		
		03 = 400 ~ 700 nm for Alpha-BBO		
		04 = 700 ~ 3000 nm for Alpha-BBO		
		05 = 350 ~ 2300 nm for Calcite		
		00 = Special		
В	Material	1 = YVO4		
		2 = Calcite		
		3 = Alpha-BBO		
		0 = Special		
С	Dimensions	$01 = 8.0$ mm( $\phi$ 1)X25.4mm( $\phi$ 2)X17.0mm(L)		
		Check Standard Size Table Below		
		<b>00 = Custom Dimensions</b>		

### **Standard Size Table:**

Dimension	Clear Aperture	Outside Diameter	Length	Wavelength	Matarial
P/N	Φ1 (mm)	Φ2 (mm)	L (mm)	Range (nm)	Material
01	8.0	25.4	17.0	700 ~ 3000	Alpha-BBO
02	10.0	25.4	18.5		
03	15.0	30.0	23.0		
04	20.0	38.0	27.0		
05	8.0	25.4	17.0	400 ~ 700	
06	10.0	25.4	18.5		
07	15.0	30.0	23.0		
08	20.0	38.0	27.0		
09	8.0	25.4	17.0	350 ~ 3000	Calcite
10	10.0	25.4	18.5		
11	15.0	30.0	23.0		