

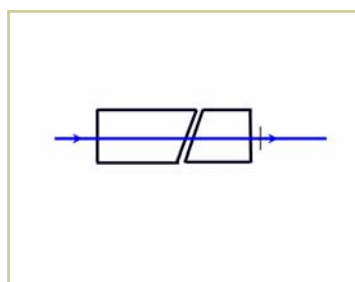
Glan Taylor Polarizers



Glan Taylor polarizers utilize the high bi-refringence of natural crystal calcite to produce a linearly polarized output from a laser beam of random polarization. They consist of two prisms of calcite separated by an air-space. They produce a high degree of polarization in the transmitted beam with an extinction ratio of 1×10^{-6} . They have a transmittance of over 88% and an 8° field of view.

Calcite is available in several different grades. For laser use, Glan Taylor polarizers must be made of laser grade calcite, which is of high homogeneity, has few inclusions and shows no scattering when illuminated with a helium neon laser beam. For

applications in the ultra-violet (from 220–350 nm) UV grade calcite should be selected. For less demanding applications it is acceptable to use either



optical grade or standard grade calcite. Optical grade shows no scattering when viewed under a 40 watt incandescent lamp. Standard

grade shows some scattering.

Glan Taylor polarizers normally supplied as square cross section prisms with an aperture of 8, 10, 12, 15 or 20 mm. They are mounted in an absorbing black potting compound within a metal cell.

Single layer MgF_2 anti-reflection coatings may be applied if required. These coatings provide a reflectance of less than 2% over a range of 220-400 nm, 400-700 nm, or 700-1100 nm.

Typical Specifications

Material:	Crystal Calcite UV or Laser grade Optical or Standard grade
Cell:	Aluminium (black anodized)
Wavelength - UV grade:	220 - 2800 nm
- Other grades:	350 - 2800 nm
Transmission of p-component:	88%
Extinction ratio:	1×10^{-6}
Wavefront distortion:	$\lambda/4$ @ 633nm
Surface quality:	20-10
Field of view:	± 4 deg
Dimensions:	± 0.25 mm
Clear aperture:	>90%
Length/Aperture:	0.85
Centration to cell OD:	10 arcmin

To request a quote or to order, please specify:

Quantity — Calcite Grade (UV, L, O or S) — Aperture — AR Coating (UV, Vis or NIR)

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For a quotation — please phone, fax or email us with details of your requirements.