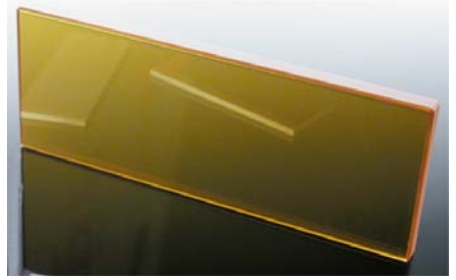
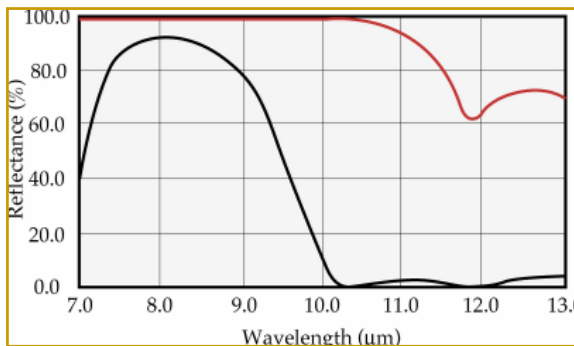


Thin Film Polarizers for CO₂ Lasers



These polarizing plate beamsplitters are intended for use with CO₂ laser beams.



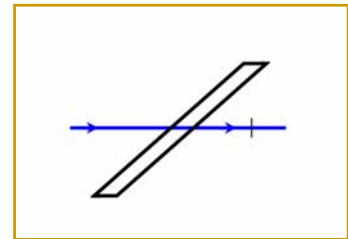
They use the principle of Brewster angle reflection enhanced many times by the use of a multi-layer dielectric film.

Typical Specifications	
Substrate Material:	ZnSe or Ge
Surface flatness:	$\lambda/20$ @ 10.6 um
Surface quality:	40/20
Parallelism:	< 3 arcmin
Diameter:	+0.0 / -0.2 mm
Thickness:	+ 0.25 mm
Clear aperture:	> 85% of diameter
Reflectance:	Rs >99% @ 10.6um
Transmittance:	Tp >95% @ 10.6um
AOI:	ZnSe 67.4deg, Ge 76.0deg
Extinction Ratio:	>100:1
AR coating:	R<0.5% @ 10.6um

The polarizing coating is applied to the reflecting face and an anti-reflection coating for 10.6um is applied to the rear surface.

Two different substrates are offered, Zinc Selenide or Germanium. Each has to be used at the Brewster angle of incidence for complete effectiveness. The Brewster angle for Zinc Selenide is 67.4° and that for Germanium is 76.0°.

In order to accommodate a uniform circular beam at these extreme angles the polarizers are supplied on rectangular substrates.



Standard sizes for ZnSe are:

25.4 x 66.0 mm or 50.8 x 132.2 mm.

Standard sizes for Ge are:

25.4 x 104.9 mm or 38.1 x 157.4 mm.

Thickness varies is either 3 or 5 mm in order to control the flatness specification.

To request a quote or to order, please specify:

Quantity — Substrate Material — Width

Optarius

PO Box 2271
Malmesbury SN16 9FA
United Kingdom

Optics for the Infra-Red

Phone: +44 1666 575185
Fax: +44 1666 577424
Email: optarius@optarius.com
Web: www.optarius.com

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