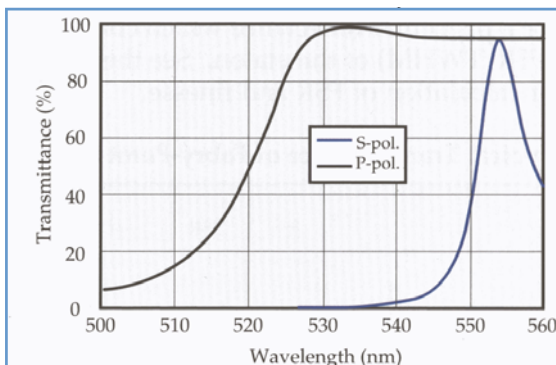


# Thin Film Plate Polarizers



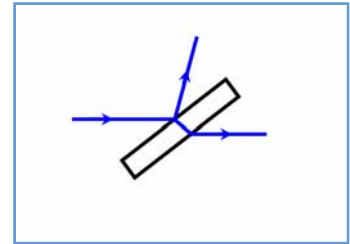
When working with high power lasers, thin film plate polarizers are one of the best ways of creating a highly polarized output while handling the laser energy. Used at the Brewster angle, even one reflection is highly polarized. However, the film consists of a stack of reflecting surfaces, each of which further polarizes the incident radiation.



The reflected beam contains only s-polarized light and the p-polarized component is transmitted.

Thin film plate polarizers produce an extinction ratio in excess of 100:1 and they easily handle energy levels of 5 J/cm<sup>2</sup> (10ns).

These polarizers are produced on highly polished substrates of UV Fused Silica, BK7, CaF<sub>2</sub>, ZnSe or Ge according to the laser wavelength.



They can be circular or rectangular in shape—typical sizes are 25.4 and 50.8 mm diameter or 25, 28, 38 or 50 mm wide rectangles with a length appropriate to the angle of incidence. Here are some typical high power thin film plate polarizers which we can supply:

Typical Specifications	
Substrate Material:	UVFS, BK7, CaF <sub>2</sub> , ZnSe, Ge
Surface flatness:	$\lambda/10$ @ 633 nm
Surface quality:	10/5
Extinction Ratio:	> 100:1
Parallelism:	< 3 arcmin
Diameter:	+0.0 / -0.2 mm
Thickness:	$\pm$ 0.25 mm
Clear aperture:	> 85% of diameter
Damage Threshold:	> 5J/cm <sup>2</sup> , 10 ns
Durability:	ML-C-675

Laser	Wavelength	Substrate	AOI
Excimer	248 nm	UVFS	56°
	308 nm	UVFS	56°
Nd:YAG	355 nm	UVFS	56°
	532 nm	BK7	57°
Ho:YAG	1064 nm	BK7	57°
	2100 nm	CaF <sub>2</sub>	55°
Er:YAG	2940 nm	CaF <sub>2</sub>	55°

**To request a quote or to order, please specify:**

Quantity — Material — Aperture— Circle or Rectangle — Laser Type & Wavelength

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