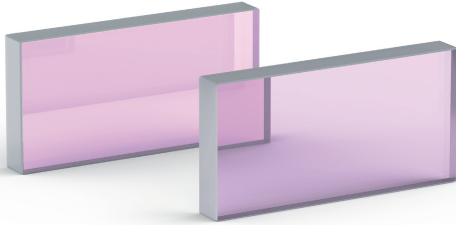


# High Contrast Thin Film Polarizers



## Description

High Contrast Thin Film Polarizers (TFP) are made using advanced Ion Beam Sputtering (IBS) coating technology. These thin film polarizers separate s- and p-polarization components of high energy laser beams. Due to very low losses they are perfect for intra and extra cavity usage. Because of their high damage threshold and extinction ratio (>1000:1), thin film polarizers are a good replacement for Glan laser polarizing prisms or polarizing cube beam splitters. For optimal performance, polarizers should be mounted in an appropriate holder allowing angular adjustment. We offer two types of high contrast polarizers: with higher LIDT or higher contrast values.

## Features

- High Tp, low absorption & scattering
- No aging effects due to negligible porosity of the coatings
- Transmitted wavefront distortion (TWD), P-V:  $< \lambda/10$  @ 632.8 nm
- Laser damage threshold up to 20 J/cm<sup>2</sup> @ 532 nm, 10 ns, 10 Hz (s-pol)

## Typical items\*

Wavelength, nm	Transmission, p-pol, %	Reflection, s-pol, %	Contrast, (Tp/Ts)	Typical LIDT @ 10 ns, 10 Hz for s-pol, J/cm <sup>2</sup>	Typical LIDT @ 10 ns, 10 Hz for p-pol, J/cm <sup>2</sup>	Product ID for AOI=Brewster
343	>97	>99.7	>300:1	>4	>1	2-HCBTFP-0343-0254
355	>97	>99.7	>300:1	>4	>1	2-HCBTFP-0355-0254
515	>99	>99.9	>1000:1	>5	>2	2-HCBTFP-0515-0254
532	>98	>99.8	>500:1	>7	>3	2-HCPBTFP-0532-0254
532	>99	>99.9	>1000:1	>5	>2	2-HCBTFP-0532-0254
800	>99	>99.9	>1000:1	>7	>3	2-HCBTFP-0800-0254
1030	>99	>99.8	>500:1	>20	>10	2-HCPBTFP-1030-1020
1030	>99	>99.9	>1000:1	>7	>3	2-HCBTFP-1030-0254
1064	>99	>99.8	>500:1	>20	>10	2-HCPBTFP-1064-1020
1064	>99	>99.9	>1000:1	>7	>3	2-HCBTFP-1064-0254

\* Customized solutions are available on request. Typical dimensions are Ø25.4 x 5 mm, 20 x 40 x 5 mm and 10 x 20 x 5 mm.

### Typical items\*

Wavelength, nm	Transmission, p-pol, %	Reflection, s-pol, %	Contrast, (Tp/Ts)	Typical LIDT @ 10 ns, 10 Hz for s-pol, J/cm <sup>2</sup>	Typical LIDT @ 10 ns, 10 Hz for p-pol, J/cm <sup>2</sup>	Product ID for AOI=45°
355	>95	>99.8	>500:1	>4	>1	2-HC45TFP-0355-0254
532	>98	>99.8	>500:1	>7	>3	2-HCP45TFP-0532-0254
532	>97	>99.9	>1000:1	>5	>2	2-HC45TFP-0532-0254
1030	>97	>99.8	>500:1	>20	>10	2-HCP45TFP-1030-0254
1030	>97	>99.8	>1000:1	>7	>3	2-HC45TFP-1030-0254
1064	>97	>99.8	>500:1	>20	>10	2-HCP45TFP-1064-0254
1064	>97	>99.9	>1000:1	>7	>3	2-HC45TFP-1064-0254

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