

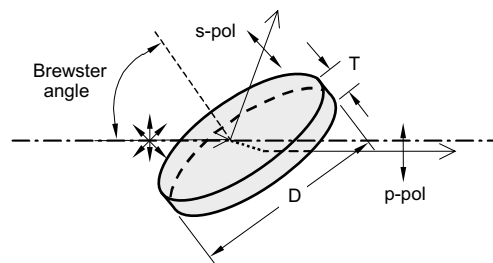
THIN FILM LASER POLARIZERS (56° ANGLE OF INCIDENCE)

Thin film polarizers separate s- and p- polarization components. Due to their high laser damage threshold, thin film polarizers can be used as an alternative to Glan-Taylor laser polarizing prisms or cube polarizing beamsplitters.

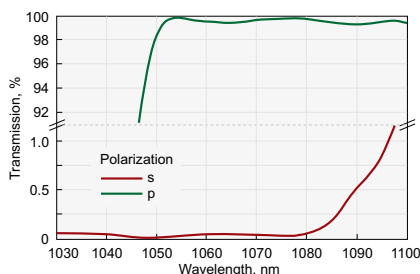
Nd:YAG Laser Line thin film polarizers are used in high energy lasers. They can be used as extracavity attenuators for Nd:YAG laser fundamental and its harmonics or intracavity Q-switch hold-off polarizers. The most efficient way to use these polarizers is at Brewster's angle – $56 \pm 2^\circ$.

Specifications

Material	BK7, UV FS
Surface quality	20–10 scratch & dig (MIL-PRF-13830B)
Transmitted wavefront distortion	$\lambda/10$ @ 633 nm
Parallelism	<30 arcsec
Clear aperture	>90%
Angle of incidence (AOI)	$56 \pm 2^\circ$
Diameter tolerance	+0.0; -0.12 mm
Thickness tolerance	± 0.2 mm
Laser damage threshold	6 J/cm ² 10 nsec pulse at 1064 nm typical



HIGH EXTINCTION RATIO POLARIZERS



420-1258HE.
Tp > 98%, Ts < 0.1%

Round Polarizers

Material – UV FS; Tp > 98%, Ts < 0.1%; extinction ratio for transmitted light Tp/Ts: >1000:1

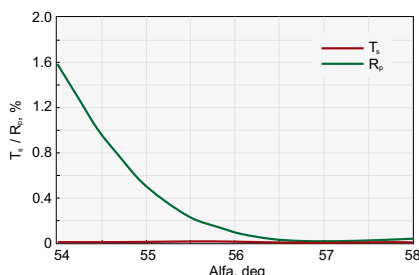
Wavelength, nm	Diameter D, mm	Thickness T, mm	Catalogue number	Price, EUR
355	25.4	3	420-1252HE	251
532	25.4	3	420-1254HE	213
1064	25.4	3	420-1258HE	248

Rectangular Polarizers

Material – UV FS; Tp > 98%, Ts < 0.1%; extinction ratio for transmitted light Tp/Ts: >1000:1

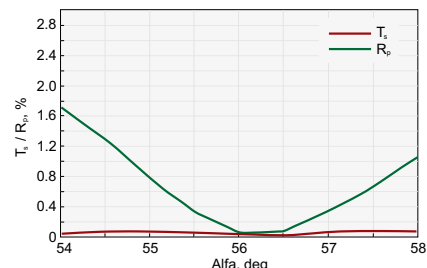
Wavelength, nm	Rectangular dimensions		Thickness T, mm	Catalogue number	Price, EUR
	Length, mm	Width, mm			
532	20	15	6	420-1484HE	178
532	30	20	6	420-1584HE	242
1064	20	15	6	420-1488HE	190
1064	30	20	6	420-1588HE	253

ULTRA HIGH TRANSMISSION THIN FILM POLARIZERS



420-1254UHT.

Ultra High Transmission @ 532 nm,
Ts < 0.2%, Rp < 0.2%, AOI = 56°



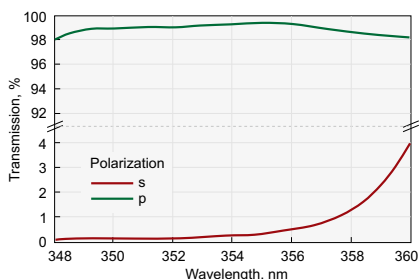
420-1258UHT.

Ultra High Transmission @ 1064 nm,
Ts < 0.2%, Rp < 0.2%, AOI = 56°

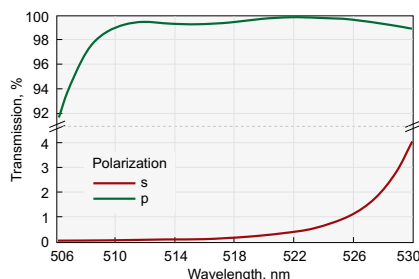
Round Polarizers. Material – UV FS; Ts < 0.2 %, Rp < 0.2 %; extinction ratio for transmitted light Tp/Ts > 500:1

Wavelength, nm	Diameter D, mm	Thickness T, mm	Catalogue number	Price, EUR
532	25.4	3	420-1254UHT	299
1064	25.4	3	420-1258UHT	350

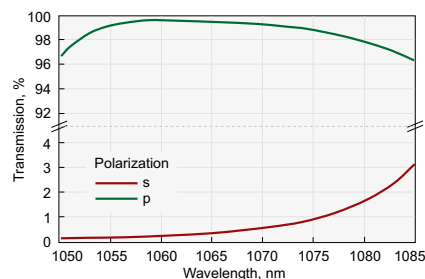
HIGH TRANSMISSION THIN FILM POLARIZERS


420-1252HT.

High Transmission @ 355 nm, Rs/Tp > 99.5/99.0 %


420-1254HT.

High Transmission @ 532 nm, Rs/Tp > 99.5/99.0 %


420-1258HT.

High Transmission @ 1064 nm, Rs/Tp > 99.5/99.0 %

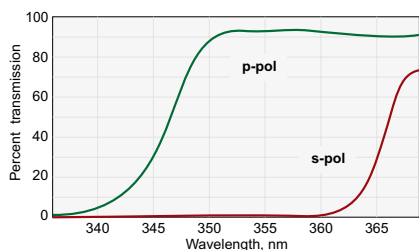
Round Polarizers. Material - UV FS. Rs / Tp > 99.5 / 99.0 %; extinction ratio for transmitted light Tp / Ts > 200:1

Wavelength, nm	Diameter D, mm	Thickness T, mm	Catalogue number	Price, EUR
355	25.4	3.0	420-1252HT	273
532	25.4	3.0	420-1254HT	230
1064	25.4	3.0	420-1258HT	269

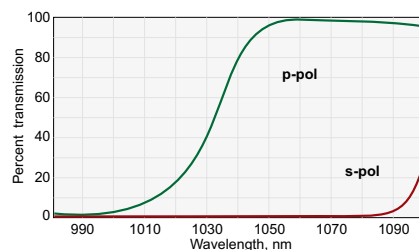
Rectangular Polarizers. Material - UV FS. Rs / Tp > 99.5 / 99.0 %; extinction ratio for transmitted light Tp / Ts > 200:1

Wavelength, nm	Rectangular dimensions Length, mm Width, mm	Thickness T, mm	Catalogue number	Price, EUR
1064	28.6 14.3	3.0	420-1288HT	311

STANDARD THIN FILM POLARIZERS


420-1252.

Transmission @ 355 nm, Rs/Tp > 99.5/95 %


420-1258.

Transmission @ 1064 nm, Rs/Tp > 99.5/95 %

Round Polarizers. Material - BK7; Rs / Tp > 99.5 / 95.0 %; extinction ratio for transmitted light Tp/Ts > 200:1

Wavelength, nm	Diameter D, mm	Thickness T, mm	Catalogue number	Price, EUR
532	12.7	3.0	420-0124E	124
1064	12.7	3.0	420-0128E	132
532	25.4	3.0	420-0254E	147
1064	25.4	3.0	420-0258E	178
532	50.8	6.0	420-0504E	237
1064	50.8	6.0	420-0508E	293

Rectangular Polarizers. Material - BK7; Rs / Tp > 99.5 / 95.0 %; extinction ratio for transmitted light Tp/Ts > 200:1

Wavelength, nm	Rectangular dimensions Length, mm Width, mm	Thickness T, mm	Catalogue number	Price, EUR
532	28.6 14.3	3.0	420-0284	163
1064	28.6 14.3	3.0	420-0288	196

Round Polarizers. Material - UV FS; Rs / Tp > 99.5 / 95.0 %; extinction ratio for transmitted light Tp/Ts > 200:1

Wavelength, nm	Diameter D, mm	Thickness T, mm	Catalogue number	Price, EUR
355	12.7	3.0	420-1122E	189
532	12.7	3.0	420-1124E	151
1064	12.7	3.0	420-1128E	167
355	25.4	3.0	420-1252E	209
532	25.4	3.0	420-1254E	177
1064	25.4	3.0	420-1258E	207
355	50.8	6.0	420-1502E	374
532	50.8	6.0	420-1504E	339
1064	50.8	6.0	420-1508E	362

Rectangular Polarizers. Material - UV FS; Rs / Tp > 99.5 / 95.0 %; extinction ratio for transmitted light Tp/Ts > 200:1

Wavelength, nm	Rectangular dimensions Length, mm Width, mm	Thickness T, mm	Catalogue number	Price, EUR
355	28.6 14.3	3.0	420-1282	293
532	28.6 14.3	3.0	420-1284	247
1064	28.6 14.3	3.0	420-1288	259

Related Products

Thin Film Laser Polarizers of other wavelengths

See page 1.55

Glan and Wollaston Prisms

See page 1.62

Adapters for Polarizer at 56° 840-0117, 840-0118

Find more at EksmaOptics.com



Variable Attenuator for Nd:YAG linearly Polarized Laser Beam 990-0070

Find more at EksmaOptics.com

