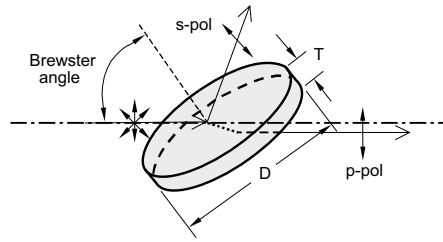


THIN FILM POLARIZERS (56° Angle of Incidence)

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.

Femtoline thin film laser polarizers are designed for use in high energy lasers. They can be used for Yb:KYW/KGW or Ti:Sapphire laser fundamental wavelengths or their harmonics, as well as 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
Angle of incidence (AOI)	$56 \pm 2^\circ$
Laser damage threshold	$>100 \text{ mJ/cm}^2$, 50 fsec pulse, 50 Hz, 800 nm typical

THIN FILM POLARIZERS WITH HIGH EXTINCTION RATIO

ROUND POLARIZERS. Material – UV FS. $T_p > 98\%$, $T_s < 0.1\%$.
Extinction ratio for transmitted light $T_p/T_s > 1000:1$

Wavelength, nm	Diameter D, mm	Thickness T, mm	Catalogue number	Price, EUR
343	25.4	3	420-1242HE	218
515	25.4	3	420-1244HE	185
800	25.4	3	420-1256HE	185
780 – 820	25.4	3	420-1266HE	275
1030	25.4	3	420-1248HE	216

RECTANGULAR POLARIZERS. Material – UV FS. $T_p > 98\%$, $T_s < 0.1\%$.
Extinction ratio for transmitted light $T_p/T_s > 1000:1$

Wavelength, nm	Rectangular dimensions		Thickness T, mm	Catalogue number	Price, EUR
	Length, mm	Width, mm			
1030	20	15	6	420-1478HE	165
1030	30	20	6	420-1578HE	220

HIGH TRANSMISSION THIN FILM POLARIZERS

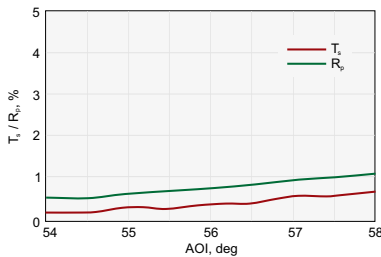
ROUND POLARIZERS. Material – UV FS. $R_s / T_p > 99.5 / 99.0\%$.
Extinction ratio for transmitted light $T_p/T_s > 200:1$

Wavelength, nm	Diameter D, mm	Thickness T, mm	Catalogue number	Price, EUR
343	25.4	3.0	420-1242HT	237
515	25.4	3.0	420-1244HT	200
800	25.4	3.0	420-1256HT	200
1030	25.4	3.0	420-1248HT	234

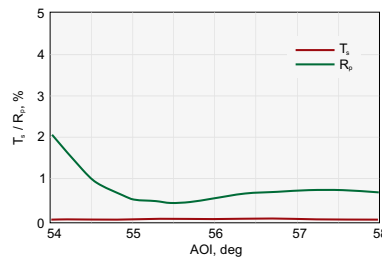
ULTRA HIGH TRANSMISSION THIN FILM POLARIZERS

ROUND POLARIZERS. Material – UV FS. $T_s < 0.2\%$, $R_p < 0.2\%$.
Extinction ratio for transmitted light $T_p/T_s > 500:1$

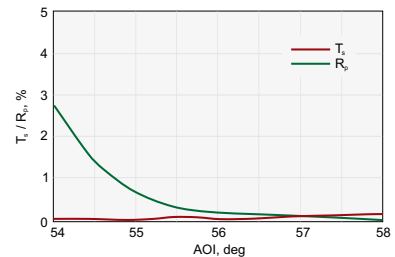
Wavelength, nm	Diameter D, mm	Thickness T, mm	Catalogue number	Price, EUR
800	25.4	3.0	420-1256UHT	260
1030	25.4	3.0	420-1248UHT	304



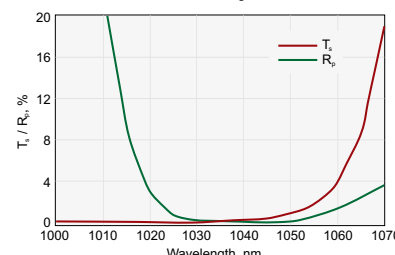
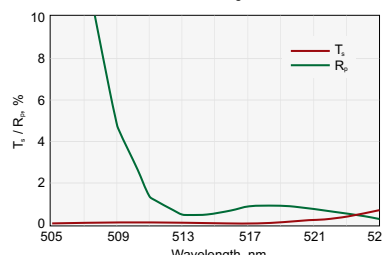
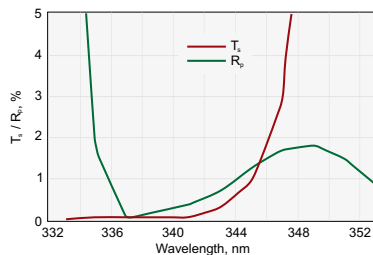
420-1242HT.
High Transmission @ 343 nm,
 $R_s/T_p > 99.5/99.0\%$, AOI=56°



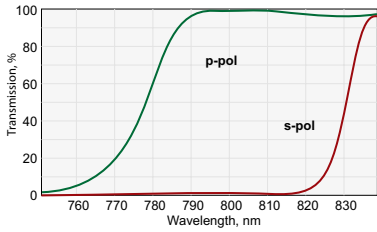
420-1244HT.
High Transmission @ 515 nm,
 $R_s/T_p > 99.5/99.0\%$, AOI=56°



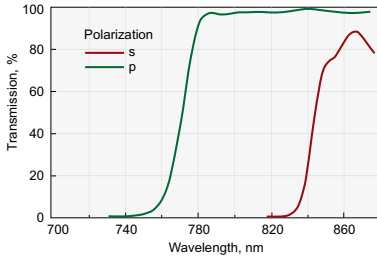
420-1248HT.
High Transmission @ 1030 nm,
 $R_s/T_p > 99.5/99.0\%$, AOI=56°



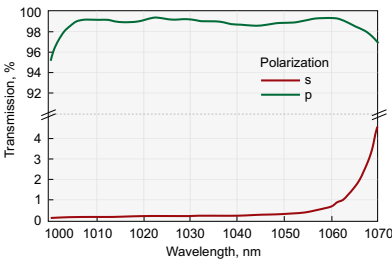
STANDARD THIN FILM POLARIZERS



420-0126E.
Transmission @ 800 nm,
Rs/Tp > 99.5/95.0 %, AOI=56°



420-0266E.
Transmission @ 780-820 nm,
Rs/Tp > 99.5/95.0 %, AOI=56°



420-0268E.
Transmission @ 1010-1050 nm,
Rs/Tp > 99.5/95.0 %, AOI=56°

Please contact us if you need thin film laser polarizers of other wavelengths or other types of substrates.

RELATED PRODUCTS

Glan Laser Polarizing, Wollaston Prisms
See page 1.63

Adapters for Polarizer
at 56° 840-0117, 840-0118
Find more at EksmaOptics.com



Variable Attenuators
for Linearly Polarized
Laser Beam 990-0070
See page 4.29



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
515	12.7	3.0	420-0114E	108
800	12.7	3.0	420-0126E	108
780-820	12.7	3.0	420-0136E	160
1030	12.7	3.0	420-0118E	115
1010-1050	12.7	3.0	420-0138E	160
515	25.4	3.0	420-0244E	128
800	25.4	3.0	420-0256E	128
780-820	25.4	3.0	420-0266E	189
1030	25.4	3.0	420-0248E	155
1010-1050	25.4	3.0	420-0268E	189
515	50.8	6.0	420-0514E	206
800	50.8	6.0	420-0506E	215
780-820	50.8	6.0	420-0526E	309
1030	50.8	6.0	420-0518E	255
1010-1050	50.8	6.0	420-0528E	335

RECTANGULAR POLARIZERS. Material – BK7. Rs / Tp > 99.5 / 95.0%.
Extinction ratio for transmitted light Tp/Ts >200:1

Wavelength, nm	Rectangular dimensions		Thickness T, mm	Catalogue number	Price, EUR
	Length, mm	Width, mm			
515	28.6	14.3	3.0	420-0274	142
800	28.6	14.3	3.0	420-0286	142
780-820	28.6	14.3	3.0	420-0296	220
1030	28.6	14.3	3.0	420-0278	170
1010-1050	28.6	14.3	3.0	420-0298	220

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
343	12.7	3.0	420-1112E	164
400	12.7	3.0	420-1123E	131
515	12.7	3.0	420-1114E	131
800	12.7	3.0	420-1126E	131
780-820	12.7	3.0	420-1136E	196
1030	12.7	3.0	420-1118E	145
1010-1050	12.7	3.0	420-1138E	196
343	25.4	3.0	420-1242E	182
400	25.4	3.0	420-1253E	154
515	25.4	3.0	420-1244E	154
800	25.4	3.0	420-1256E	154
780-820	25.4	3.0	420-1266E	231
1030	25.4	3.0	420-1248E	180
1010-1050	25.4	3.0	420-1268E	231
343	50.8	6.0	420-1512E	325
400	50.8	6.0	420-1503E	295
515	50.8	6.0	420-1514E	295
800	50.8	6.0	420-1506E	305
780-820	50.8	6.0	420-1526E	404
1030	50.8	6.0	420-1518E	315
1010-1050	50.8	6.0	420-1528E	404

RECTANGULAR POLARIZERS. Material – UV FS. Rs / Tp > 99.5 / 95.0%.
Extinction ratio for transmitted light Tp/Ts >2 00:1

Wavelength, nm	Rectangular dimensions		Thickness T, mm	Catalogue number	Price, EUR
	Length, mm	Width, mm			
343	28.6	14.3	3.0	420-1272	255
400	28.6	14.3	3.0	420-1283	215
515	28.6	14.3	3.0	420-1274	215
800	28.6	14.3	3.0	420-1286	215
780-820	28.6	14.3	3.0	420-1296	315
1030	28.6	14.3	3.0	420-1278	225
1010-1050	28.6	14.3	3.0	420-1298	315

OPTICAL
COMPONENTS

NONLINEAR & LASER
CRYSTALS

ND:YAG LASERLINE
COMPONENTS

FEMTOLINE
COMPONENTS

OPTICAL
SYSTEMS

OPTO-MECHANICAL
COMPONENTS