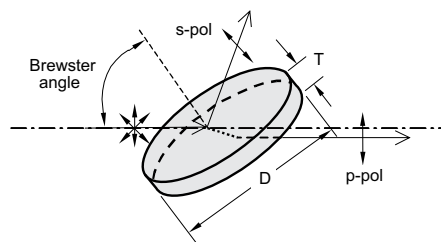


## THIN FILM LASER POLARIZERS

Thin Film Polarizers separate s- and p-polarization components. Thin Film Polarizers can be used as an alternative to Glan-Taylor laser polarizing prisms or cube polarizing beam splitters due to high damage threshold reaching 100 mJ/cm<sup>2</sup>, at 800 nm, 50 fsec.

Thin film polarizers are used in high energy lasers. They can be used for Yb:KYW/KGW or Ti:Sapphire laser fundamental wavelength and its harmonics or intracavity Q-switch hold-off polarizers. The most efficient way to use thin film laser polarizers is at Brewster angle – 56 ± 2° with minimal losses. Typical horizontal polarization ratio  $T_p/T_s$  is 200:1.

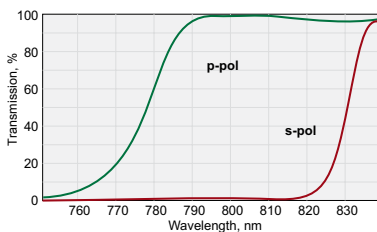


We provide Thin Film Laser Polarizers with  $T_p > 99\%$  per customer request.

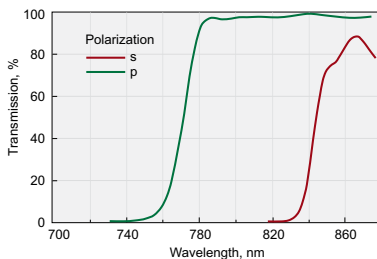
### SPECIFICATIONS

Material	BK7, UV FS
Surface quality	20-10 scratch & dig (MIL-PRF-13830B)
Angle of incidence (AOI)	56 ± 2°
Extinction ratio $T_p/T_s$	>200:1
Laser damage threshold	>100 mJ/cm <sup>2</sup> , 50 fsec pulse, 800 nm typical

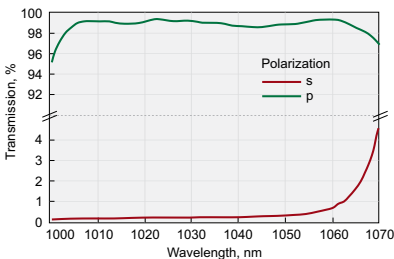
### Material BK7



**420-0126.**  
Transmission @ 800 nm,  
 $R_s/T_p > 99.5/95.0\%$ , AOI=56°



**420-0266.**  
Transmission @ 780-820 nm,  
 $R_s/T_p > 99.5/95.0\%$ , AOI=56°



**420-0268.**  
Transmission @ 1010-1050 nm,  
 $R_s/T_p > 99.5/95.0\%$ , AOI=56°

$R_s / T_p > 99.5 / 95.0\%$

Catalogue number	Diameter D, mm		Thickness T, mm	Wavelength, nm	Price, EUR
	Metric	English			
420-0114	12.5	12.7	3.0	515	108
420-0126	12.5	12.7	3.0	800	108
420-0136	12.5	12.7	3.0	780-820	160
420-0118	12.5	12.7	3.0	1030	115
420-0138	12.5	12.7	3.0	1010-1050	160
420-0244	25.0	25.4	3.0	515	128
420-0256	25.0	25.4	3.0	800	128
420-0266	25.0	25.4	3.0	780-820	189
420-0248	25.0	25.4	3.0	1030	155
420-0268	25.0	25.4	3.0	1010-1050	189
420-0514	50.0	50.8	6.0	515	206
420-0506	50.0	50.8	6.0	800	215
420-0526	50.0	50.8	6.0	780-820	309
420-0518	50.0	50.8	6.0	1030	255
420-0528	50.0	50.8	6.0	1010-1050	335

Please add letter M to the catalogue code for metric dimensions or E for English.

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

### RELATED PRODUCTS

Glan Laser Polarizing, Wollaston Prisms

See page 1.48

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

See page 8.78

Variable Attenuators for Linearly Polarized Laser Beam 990-0070

See page 5.22



**Material UV FS**

$R_s / T_p > 99.5 / 95.0 \%$

Catalogue number	Diameter D, mm		Thickness T, mm	Wavelength, nm	Price, EUR
	Metric	English			
420-1112	12.5	12.7	3.0	343	164
420-1123	12.5	12.7	3.0	400	131
420-1114	12.5	12.7	3.0	515	131
420-1126	12.5	12.7	3.0	800	131
420-1136	12.5	12.7	3.0	780-820	196
420-1118	12.5	12.7	3.0	1030	145
420-1138	12.5	12.7	3.0	1010-1050	196
420-1242	25.0	25.4	3.0	343	182
420-1253	25.0	25.4	3.0	400	154
420-1244	25.0	25.4	3.0	515	154
420-1256	25.0	25.4	3.0	800	154
420-1266	25.0	25.4	3.0	780-820	231
420-1248	25.0	25.4	3.0	1030	180
420-1268	25.0	25.4	3.0	1010-1050	231
420-1512	50.0	50.8	6.0	343	325
420-1503	50.0	50.8	6.0	400	295
420-1514	50.0	50.8	6.0	515	295
420-1506	50.0	50.8	6.0	800	305
420-1526	50.0	50.8	6.0	780-820	404
420-1518	50.0	50.8	6.0	1030	315
420-1528	50.0	50.8	6.0	1010-1050	404

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

Please add letter M to the catalogue code for metric dimensions or E for English.

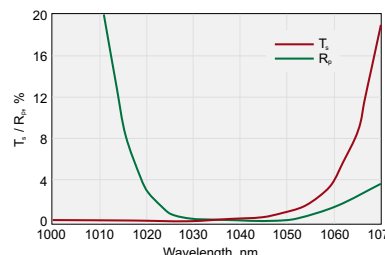
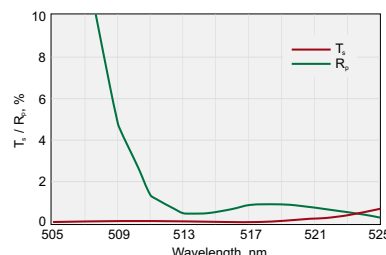
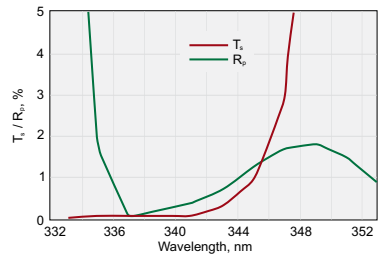
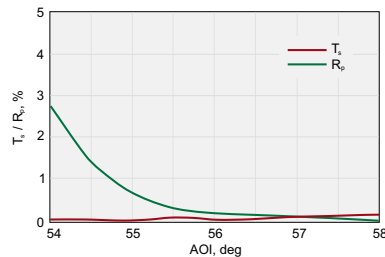
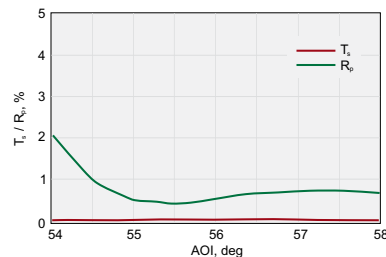
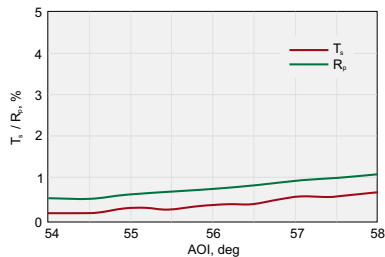
Catalogue number	Rectangular dimensions		Thickness T, mm	Wavelength, nm	Price, EUR
	Length, mm	Width, mm			
420-1272	28.6	14.3	3.0	343	255
420-1283	28.6	14.3	3.0	400	215
420-1274	28.6	14.3	3.0	515	215
420-1286	28.6	14.3	3.0	800	215
420-1296	28.6	14.3	3.0	780-820	315
420-1278	28.6	14.3	3.0	1030	225
420-1298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

**High Transmission Thin Film Laser Polarizers**



$R_s / T_p > 99.5 / 99.0 \%$

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



**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°