

**THIN LENSES**

**new**

- **Very thin thickness: edge thickness varies from 0.5~1.9 mm**
- **Centre thickness varies from 1~3 mm**
- **Plano-Convex or Plano-Concave type**
- **Uncoated, AR coated @ 760-840 nm, BBAR @ 700-900 nm, UBBAR @ 350-900 nm**

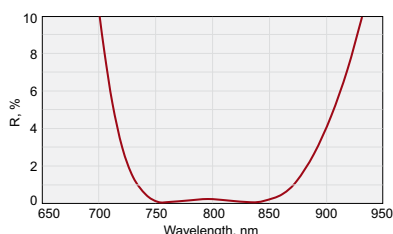
EKSMA OPTICS introduces Ultrathin Lenses series for femtosecond applications. Femtosecond application often requires Low Group Delay Dispersion optics. Our below given Thin UVFS lenses are ideal in this case.

**SPECIFICATIONS**

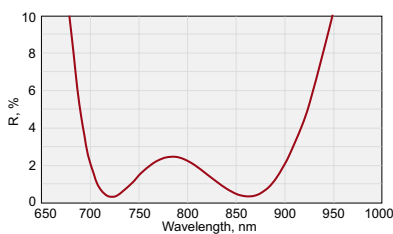
Material	UV FS
Surface quality	40-20 scratch & dig (MIL-PRF-13830B)
Clear aperture	90% of the diameter
Diameter tolerance	+0.00, -0.12 mm
Thickness tolerance	±0.2 mm
Surface irregularity	λ/8 @ 633 nm
Concentricity	3 arcmin
Paraxial focal length	±2% @ 800 nm

**COATING**

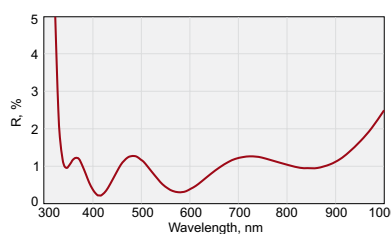
Technology	Electron beam multilayer dielectric
Adhesion and Durability	Per MIL-C-675A. Insoluble in lab solvents
Clear Aperture	Exceeds central 85% of diameter
Angle of Incidence	0°
Coated Surface Flatness	λ/10 at 633 nm over clear aperture
Laser Damage Threshold for AR @ 760-840 nm	100 mJ/cm <sup>2</sup> , 50 fsec pulse, 800 nm typical
Laser Damage Threshold for BBAR @ 700-900 nm	50 mJ/cm <sup>2</sup> , 50 fsec pulse, 800 nm typical
Laser Damage Threshold for UBBAR @ 350-900 nm	50 mJ/cm <sup>2</sup> , 50 fsec pulse, 800 nm typical



Reflectivity @ 760-840 nm

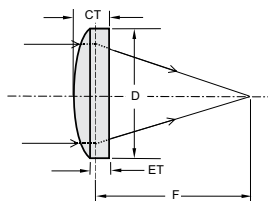


Reflectivity @ 700-900 nm



Reflectivity @ 350-900 nm

**Thin Plano-Convex Lenses, Ø24.5 mm**

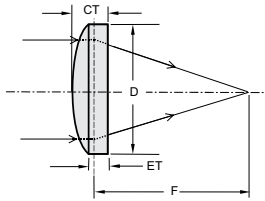


Other sizes and focal length are available on request.

Material – UVFS, Diameter D = Ø25.4 mm

Centre Thickness CT, mm	Edge Thickness ET, mm	Focal Length F, mm @ 800 nm	Uncoated		AR @ 760-840 nm		BBAR @ 700-900 nm		UBBAR @ 350-900 nm	
			Catalogue number	Price, EUR	Catalogue number	Price, EUR	Catalogue number	Price, EUR	Catalogue number	Price, EUR
3	0.5	75	110-1209ET	80	110-1209ET+AR	109	110-1209ET+BBAR	130	110-1209ET+UBBAR	140
2.5	0.7	100	110-1211ET	80	110-1211ET+AR	109	110-1211ET+BBAR	130	110-1211ET+UBBAR	140
2	0.6	125	110-1216ET	80	110-1216ET+AR	109	110-1216ET+BBAR	130	110-1216ET+UBBAR	140
2	0.8	150	110-1217ET	80	110-1217ET+AR	109	110-1217ET+BBAR	130	110-1217ET+UBBAR	140
2	1.1	200	110-1219ET	80	110-1219ET+AR	109	110-1219ET+BBAR	130	110-1219ET+UBBAR	140
2	1.4	300	110-1223ET	80	110-1223ET+AR	109	110-1223ET+BBAR	130	110-1223ET+UBBAR	140
2	1.5	350	110-1225ET	80	110-1225ET+AR	109	110-1225ET+BBAR	130	110-1225ET+UBBAR	140
2	1.6	400	110-1227ET	80	110-1227ET+AR	109	110-1227ET+BBAR	130	110-1227ET+UBBAR	140
2	1.6	500	110-1233ET	80	110-1233ET+AR	109	110-1233ET+BBAR	130	110-1233ET+UBBAR	140
1.5	1.3	1000	110-1245ET	80	110-1245ET+AR	109	110-1245ET+BBAR	130	110-1245ET+UBBAR	140
1.4	1.3	1500	110-1255ET	80	110-1255ET+AR	109	110-1255ET+BBAR	130	110-1255ET+UBBAR	140
1.4	1.3	2000	110-1265ET	80	110-1265ET+AR	109	110-1265ET+BBAR	130	110-1265ET+UBBAR	140

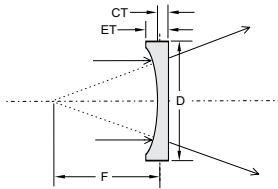
### Thin Plano-Convex Lenses, Ø12.5 mm



Material – UVFS, Diameter D = Ø12.5 mm

Centre Thickness CT, mm	Edge Thickness ET, mm	Focal Length F, mm @ 800 nm	Uncoated		AR @ 760-840 nm		BBAR @ 700-900 nm		UBBAR @ 350-900 nm	
			Catalogue number	Price, EUR	Catalogue number	Price, EUR	Catalogue number	Price, EUR	Catalogue number	Price, EUR
1.8	0.7	40	110-1108MT	60	110-1108MT+AR	85	110-1108MT+BBAR	105	110-1108MT+UBBAR	124
1.9	1	50	110-1109MT	60	110-1109MT+AR	85	110-1109MT+BBAR	105	110-1109MT+UBBAR	124
1.8	1.2	75	110-1111MT	60	110-1111MT+AR	85	110-1111MT+BBAR	105	110-1111MT+UBBAR	124
1.5	0.9	100	110-1115MT	60	110-1115MT+AR	85	110-1115MT+BBAR	105	110-1115MT+UBBAR	124
1.8	1.4	125	110-1117MT	60	110-1117MT+AR	85	110-1117MT+BBAR	105	110-1117MT+UBBAR	124
1.5	1.2	150	110-1119MT	60	110-1119MT+AR	85	110-1119MT+BBAR	105	110-1119MT+UBBAR	124
1.5	1.3	200	110-1123MT	60	110-1123MT+AR	85	110-1123MT+BBAR	105	110-1123MT+UBBAR	124
1.5	1.4	300	110-1129MT	60	110-1129MT+AR	85	110-1129MT+BBAR	105	110-1129MT+UBBAR	124
1.1	1	400	110-1133MT	60	110-1133MT+AR	85	110-1133MT+BBAR	105	110-1133MT+UBBAR	124
1.1	1	450	110-1135MT	60	110-1135MT+AR	85	110-1135MT+BBAR	105	110-1135MT+UBBAR	124
1.1	1	500	110-1137MT	60	110-1137MT+AR	85	110-1137MT+BBAR	105	110-1137MT+UBBAR	124

### Thin Plano-Concave Lenses, Ø12.5 mm



Material – UVFS, Diameter D = Ø12.5 mm

Centre Thickness CT, mm	Edge Thickness ET, mm	Focal Length F, mm @ 800 nm	Uncoated		AR @ 760-840 nm		BBAR @ 700-900 nm		UBBAR @ 350-900 nm	
			Catalogue number	Price, EUR	Catalogue number	Price, EUR	Catalogue number	Price, EUR	Catalogue number	Price, EUR
1	2.5	-30	112-1106MT	60	112-1106MT+AR	85	112-1106MT+BBAR	105	112-1106MT+UBBAR	124
1	2.1	-40	112-1108MT	60	112-1108MT+AR	85	112-1108MT+BBAR	105	112-1108MT+UBBAR	124
1	1.9	-50	112-1109MT	60	112-1109MT+AR	85	112-1109MT+BBAR	105	112-1109MT+UBBAR	124
1	1.4	-100	112-1115MT	60	112-1115MT+AR	85	112-1115MT+BBAR	105	112-1115MT+UBBAR	124
1.4	1.7	-125	112-1117MT	60	112-1117MT+AR	85	112-1117MT+BBAR	105	112-1117MT+UBBAR	124