

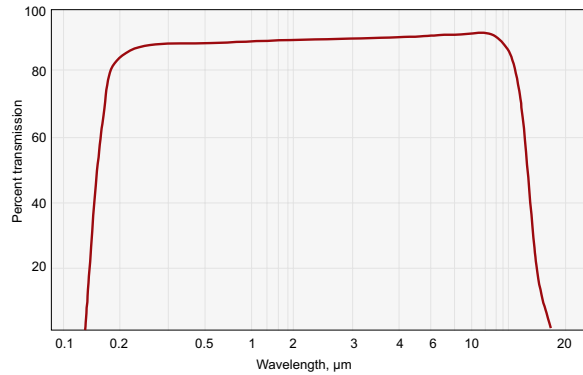
BARIUM FLUORIDE (BaF₂) COMPONENTS

- Useful transmission range covers 0.265–10 μm
- Most resistant to high energy radiation among fluorides listed in this catalogue

Barium fluoride is used for optical windows, prisms and lenses transmitting from ultraviolet into infrared, it can be used as an infrared laser window or lens. BaF₂ is recommended for use as a vacuum ultraviolet window where high radiation resistance is required.

BaF₂ is less soluble than LiF, but relatively more soluble than MgF₂ and CaF₂.

BaF₂ lenses, Brewster windows, mirrors, prisms are available on request.



External transmission of BaF₂ window of 10 mm thickness.

PHYSICAL PROPERTIES

Crystal type	cubic
Density, g/cm ³	4.89
Melting point, °C	1386
Refractive index	@ 0.265 μm, n = 1.51217 @ 10.3 μm, n = 1.39636
Transmission range, μm	0.15 – 12

BaF₂ Windows

SPECIFICATIONS

Material	BaF ₂
Surface quality	60-40 scratch & dig (MIL-PRF-13830B)
Clear aperture	90% of the diameter
Diameter tolerance	+0.0 -0.25 mm
Thickness tolerance	± 0.2 mm
Surface flatness	1λ per inch @ 633 nm
Parallelism	3 arcmin

Catalogue number	Diameter, mm	Thickness, mm	Price, EUR
540-7252	25.4	2	60
540-7251	25.4	3	60
540-7445	44.6	3.5	100
540-7503	50.8	3	220

Please contact us for other size, shape, precision or coating requirements.

BaF₂ Lenses

SPECIFICATIONS

Material	BaF ₂
Surface quality	60-40 scratch & dig (MIL-PRF-13830B)
Clear aperture	90% of the diameter
Diameter tolerance	+0.0 -0.5 mm
Focal length	± 2% @ 3 μm
Surface irregularity	λ/4 @ 633 nm
Centration	3 arcmin
Maximum available size of optical components up to dia	100 mm

Catalogue number	Diameter, mm	Focal length, mm	Type	Price, EUR
541-7105	12.7	25	plano-convex	89
541-7205	25.4	50	plano-convex	134
541-7210	25.4	100	plano-convex	109
541-7212	25.4	125	plano-convex	109
541-7214	25.4	200	plano-convex	109
541-7225	25.4	250	plano-convex	109
541-7230	25.4	300	plano-convex	109
541-7275	25.4	750	plano-convex	109
541-7250	25.4	1000	plano-convex	109
542-7105	12.7	-25	plano-concave	89
542-7205	25.4	-50	plano-concave	134
542-7207	25.4	-75	plano-concave	120
542-7210	25.4	-100	plano-concave	109
542-7225	25.4	-250	plano-concave	109
542-7250	25.4	-1000	plano-concave	109

Please contact us for other size, shape or precision requirements.

HOUSING ACCESSORIES

Self-Centring Lens Mounts 830-0010

See page 8.44

