

BARIUM FLUORIDE (BaF₂) COMPONENTS

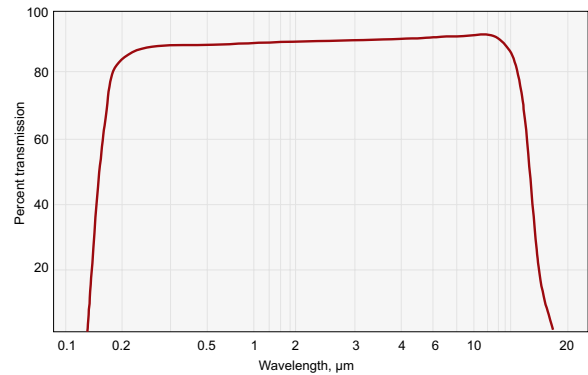
Features

- 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

Diameter, mm	Thickness, mm	Catalogue number	Price, EUR
25.4	2	540-7252	60
25.4	3	540-7251	60
44.6	3.5	540-7445	100
50.8	3	540-7503	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 Ø100 mm

Diameter, mm	Focal length, mm	Type	Catalogue number	Price, EUR
12.7	25	plano-convex	541-7105	89
25.4	40	plano-convex	541-7204	145
25.4	50	plano-convex	541-7205	134
25.4	75	plano-convex	541-7207	120
25.4	100	plano-convex	541-7210	109
25.4	125	plano-convex	541-7212	109
25.4	150	plano-convex	541-7213	109
25.4	200	plano-convex	541-7214	109
25.4	250	plano-convex	541-7225	109
25.4	300	plano-convex	541-7230	109
25.4	750	plano-convex	541-7275	109
25.4	1000	plano-convex	541-7250	109
12.7	-25	plano-concave	542-7105	89
25.4	-50	plano-concave	542-7205	134
25.4	-75	plano-concave	542-7207	120
25.4	-100	plano-concave	542-7210	109
25.4	-250	plano-concave	542-7225	109
25.4	-1000	plano-concave	542-7250	109
25.4	-2000	plano-concave	542-7270	109

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

Housing accessories

Self-Centring Lens Mounts 830-0010

Find more at EksmaOptics.com

