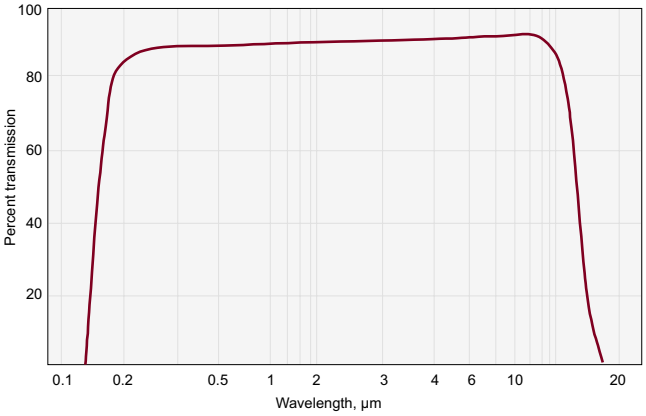
BARIUM FLUORIDE (BaF_2) COMPONENTS

- **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. BaF_2 is recommended for use as a vacuum ultraviolet window where high radiation resistance is required.

BaF_2 is less soluble than LiF, but relatively more soluble than MgF_2 and CaF_2.

BaF_2 lenses, Brewster windows, mirrors, prisms are available on request.



External transmission of BaF_2 window of 10 mm thickness.

PHYSICAL PROPERTIES

Crystal type	cubic
Density, g/cm³	5.27
Melting point, °C	1525
Refractive index	@ 0.265 µm, n = 1.51217 @ 10.3 µm, n = 1.39636
Transmission band, µm	0.135–15

BaF_2 Windows

SPECIFICATIONS

Material	BaF_2
Surface quality	60–40 scratch & dig
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
540-7251	25.4	3	93
540-7445	44.6	3.5	100

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

BaF_2 Lenses

SPECIFICATIONS

Material	BaF_2
Surface quality	60–40 scratch & dig
Clear aperture	90% of the diameter
Diameter tolerance	+0.0 -0.13 mm
Surface irregularity	λ/8 @ 546 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
541-7205	25	50	plano-convex	134
541-7210	25	100	plano-convex	109
541-7225	25	250	plano-convex	109
541-7250	25	1000	plano-convex	109
542-7205	25	-50	plano-concave	134
542-7210	25	-100	plano-concave	109
542-7225	25	-250	plano-concave	109
542-7250	25	-1000	plano-concave	109

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

HOUSING ACCESSORIES

- Self-Centring Lens Mounts 830-0010
See page 5.44