

LITHIUM FLUORIDE (LiF) COMPONENTS

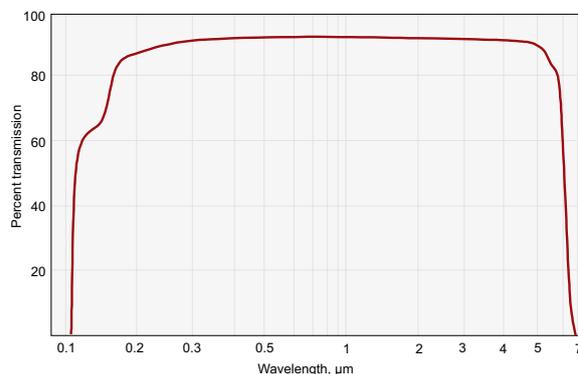
Features

- Optically isotropic, medium hard, hygroscopic, insoluble in water
- Wide transmission range from 150 nm to 6000 nm

Lithium fluoride crystals are well-suited for manufacturing of optical elements (mirrors, windows, lenses) for UV, visible and IR applications.

LiF is very useful for x-ray monochromators and for the study of fundamental properties and defects in crystals.

LiF lenses, Brewster windows, prisms are available upon request.



External transmission of LiF window of 10 mm thickness

Physical properties

Crystal type	cubic
Lattice constant, Å	a = 4.026
Density, g/cm ³	2.64
Melting point, °C	870
Refractive index @ 1.0 μm	n = 1.387
Transmission range, μm	0.12 – 6

Specifications for LiF windows

Material	optical quality LiF crystal ($\Delta n/cm < 0.5 \times 10^{-5}$)
Spectral range	UV, VIS, IR
Surface quality	60 – 40 scratch & dig (MIL-PRF-13830B)
Clear aperture	90% of the diameter
Diameter tolerance	+0.0 / -0.1 mm
Thickness tolerance	±0.2 mm
Surface flatness	$\lambda/4$ @ 633 nm
Parallelism	< 3 arcmin

Housing accessories

Optical Component Mount 830-0037

Find more at EksmaOptics.com



Diameter, mm	Thickness, mm	Substrate	Catalogue number	Price, EUR
25.4	3.0	UV grade LiF	510-5253	122
38.1	4.0	UV grade LiF	510-5384	258
50.8	6.0	UV grade LiF	510-5506	378

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