

## LITHIUM FLUORIDE (LIF) COMPONENTS

- 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.

## **HOUSING ACCESSORIES**

Optical Component Mount 830-0037 See page 8.50





External transmission of LiF window of 10 mm thickness.

## **PHYSICAL PROPERTIES**

Crystal type	cubic
Lattice constant, Å	a = 4.026
Density, g/cm <sup>3</sup>	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	λ/4 @ 633 nm
Parallelism	< 3 arcmin

Catalogue number	Diameter, mm	Thickness, mm	Substrate	Price, EUR
510-5253	25.4	3.0	UV grade LiF	102
510-5384	38.1	4.0	UV grade LiF	215
510-5506	50.8	6.0	UV grade LiF	315

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