

## Li thium Fluoride(LiF)

The transmittance of lithium fluoride crystal ranges from 110nm in vacuum ultraviolet to 6.0  $\mu\text{m}$  in infrared, and it is the material with the best transmittance in the vacuum ultraviolet region. This crystal is widely used to prepare optical windows, lenses, prisms and refractive elements in the ultraviolet-visible-infrared field. The low refractive index allows the crystal to be used directly without anti-reflection coating. Lithium fluoride crystals can also be used as X-ray detector crystals, as well as coating materials for OLED display screens. We can provide high-quality lithium fluoride single crystals grown by pulling and descending methods.的



### PARAMETERS

Crystal Structure	Cubic
Lattice Constant	$a=4.026 \text{ \AA}$
Melting Point	870 $^{\circ}\text{C}$
Density	2.635 (g/cm <sup>3</sup> )
Mohs Hardness	4.0 (mohs)
Thermal Expansion	$37.0 \times 10^{-6} /\text{K}$
Refractive Index	$n=1.39$
Transmission Wavelength	0.11-7.00 $\mu\text{m}$
Transmittance	> 90% @0.2~4.5 $\mu\text{m}$ ;
Color Deviation Hf-Hc	0.00395
Temperature Coefficient (dh/dt x10-6)	12.7 @0.6 m
Growth Method	Bridgeman, Czochralski
Cleavage Plane	$\langle 100 \rangle$
Dimension	10×10mm, 20×20mm, 30×30mm, $\varnothing 50.8\text{mm}$
Thickness	0.5mm, 1.0mm (Can be customized)
Polishing	One side or two sides
Crystal Plane Orientation Accuracy	$\pm 0.5^{\circ}$
Edge Orientation Accuracy	$2^{\circ}$ (Special requirements can reach within $1^{\circ}$ )
Surface Roughness	$R_a \leq 10 \text{ \AA}$ (5×5 $\mu\text{m}$ )
Package	Class 100 clean bag, Class 1000 super clean room