

LaF₃ Single Crystal

LaF₃ is an excellent optical crystal applied as the lens, prism and window. It has high transparency in the range of 0.2 ~ 10.5 micron wavelength.

Typical Specifications	
Crystal Structure	Trigonal: a= b= 7.190 Å, c=7.367 Å, α=β=90°, γ=120°
Growth Method	Bridgman
Melting Point	1493 °C
Crystal Purity	> 99.9% for undoped, Eu, Ca or Sr doping up to 5 mol% is available upon request
Crystal growth direction	< 0001 >
Density	5.936 g/cm ³
Hardness	4.5 (M)
Thermal expansion	11.9 x10 ⁻⁶ /K // c 15.8 x10 ⁻⁶ /K // a
Thermal Conductivity	5.1 W / m.k @ 300K
Optical Transmission range	Up to 10.5 micron wavelength η _o : 1.63 η _e : 1.597
Standard LaF3 Crystal Boule and Substrates	
Orientation	<0001> ± 0.5°
Polished surface	EPI polished on one side or two sides to Ra < 10 Å
Standard Boule	10 ~ 50 mm diameter
Standard substrates	10 mm dia. x0.5 mm 10 x 10 x 0.5 mm one side or two sides optically polished.

Special size and orientation are available upon request

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