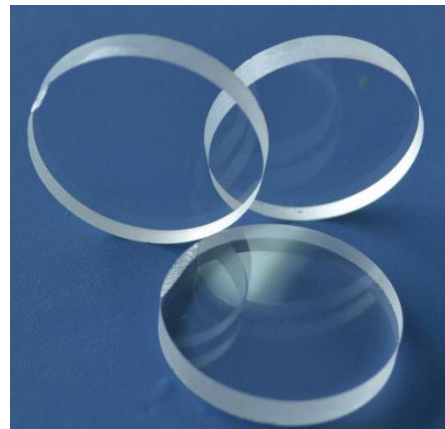


## Barium Fluoride (BaF<sub>2</sub>)

Barium fluoride (BaF<sub>2</sub>) crystal belongs to cubic crystal system, good moisture resistance, melting point 1280 °C, high using temperature, the refractive index does not change much in a wide wavelength range and with a wide of light transmission range. The highest transmittance can reach >90% in the wavelength range of 0.2μm to 10μm. BaF<sub>2</sub> crystal has good optical and mechanical properties. These make BaF<sub>2</sub> crystal be widely used in infrared and ultraviolet windows and prism substrates.

In addition, BaF<sub>2</sub> crystals also have excellent scintillation properties (due to their fast and slow 2 luminescence components, the crystal can simultaneously measure energy spectrum and time spectrum, Moreover, the energy resolution and time resolution are relatively high, so the BaF<sub>2</sub> has broad application prospects in the fields of high energy physics, nuclear physics and nuclear medicine.



### PARAMETERS

Crystal Structure	Cubic
Lattice Constant	6.196Å
Density	4.88 (g/cm <sup>3</sup> )
Melt Point	1354°C
Growth Method	Bridgeman
Mohs Hardness	3 (mohs)
Thermal Expansion	18.1×10 <sup>-6</sup> /K //c
Refractive Index	1.47443
Transmission Wavelength	0.15-13.00 μm
Transmittance	>93%@5m>75%@0.2m
Color Deviation	0.00578Hf-Hc
Temperature Coefficient	15.2-6.2@0.8m
Cleavage Plane	<111>
Maximum Size	Dia2"×80mm
Surface Roughness	Ra<5Å (5×5μm)
Application	infrared and ultraviolet windows, prism substrates
Polishing	One side or two sides
Package	Class 100 clean bag, Class 1000 super clean room