

## GLOBAL OPTICS (UK) LTD

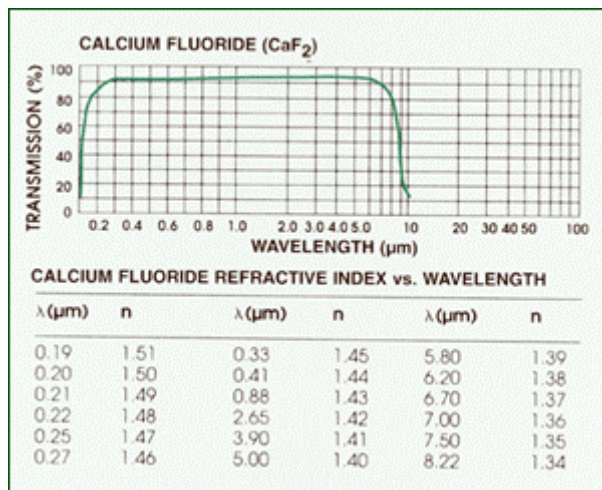
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### CALCIUM FLUORIDE - CaF<sub>2</sub>

CaF<sub>2</sub> is used for optical purposes as windows, prisms and lenses, transmitting from the vacuum ultraviolet into the infrared. It is a physically and chemically stable optical material with good water and chemical resistance. Two qualities are manufactured, one for Visible and Infrared applications and the other specifically for Ultraviolet applications grown from chemically pure powder.

**Typically applications:** VUV - UV - IR imaging systems, excimer laser windows, Spectroscopic windows and lenses, Optical Analysers, ATR crystals. Calcium Fluoride is also available doped with rare earths; Europium activated is available for Scintillation detectors.

Transmission Range	0.13 - 12.0 μ
Crystal Structure	Fluorite
Cleavage Plane	111
Colour	Colourless
Density	3.179 (25°)
Melting Point (°)	1360
Reflection Loss	5.6% (4μ) for 2 surfaces
Solubility index	1.514x10 <sup>-3</sup> / 20°C
Hardness (Knoop)	158.3(110) 158.3(100)
Thermal Conductivity (cal/cm sec°C)	2.32x10 <sup>-2</sup> (36°C)
Thermal Expansion coefficient (/°C)	24x10 <sup>-6</sup> /20-60°C



Whilst every effort has been made to verify the data provided, no responsibility can be accepted for its accuracy