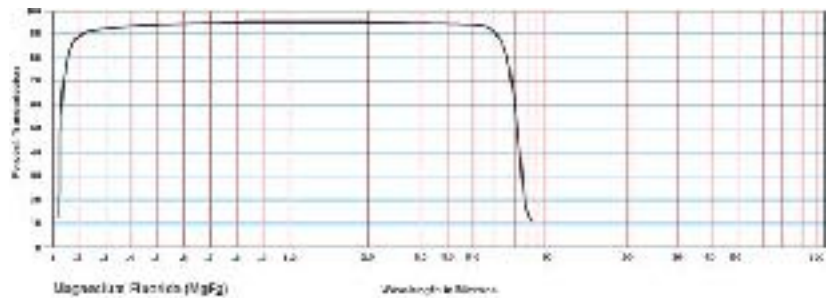
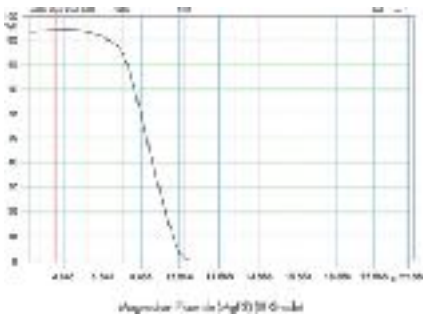


Optical Material Magnesium Fluoride (MgF₂) Optical Crystals

Magnesium Fluoride (MgF₂) is commonly used for UV windows, lenses and polarizers. It is also useful in its transmission range for some IR spectroscopy applications. Eastman Kodak produced this material in polycrystalline form as Irtran-1® (not to be confused with Irtran-2® which was ZnS).

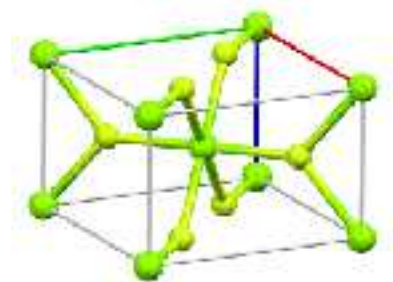


Optical Properties - Magnesium Fluoride (MgF₂) Optical Crystals

Transmission Range: 130 nm to 9 microns
Refractive Index: 1.37-1.38
Reflection Loss: 11.2% @ 120 nm, 4% @ 3 microns (2 surfaces)

Physical Properties-Magnesium Fluoride (MgF₂) Optical Crystals

Melting Point: 1255° C
Hardness (Knoop): 415 kg/mm²
Young's Modulus: 138.5 GPa
Apparent Elastic Limit: 7200 psi
Structure: Tetragonal



Chemical Properties-Magnesium Fluoride (MgF₂) Optical Crystals

Solubility: <0.0002 gm./100 gm water @ 0° C.

