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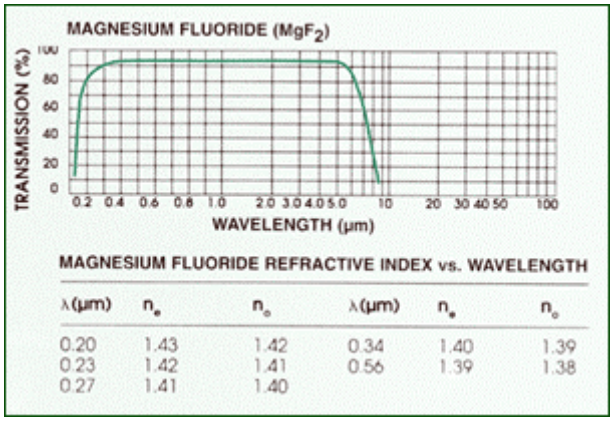
MAGNESIUM FLUORIDE - MgF_2

A very durable material resistant to mechanical and thermal shock and used for prisms, windows and lenses from the vacuum ultraviolet to the infrared region of 7.5 microns.
MgF^2 is a birefringent material making it effective as a polarising element in the ultraviolet region.

Transmission Range	0.11 - 7.5 µ
Crystal Structure	Tin oxide
Cleavage Plane	Parellel to A or C axis
Colour	Colourless
Density	3.1766 (18°)
Melting Point (°)	1255
Reflection Loss	4.8% (visible) for 2 surfaces
Solubility index	0.0076gm/100gm water / 18°C
Hardness (Knoop)	415kg/mm^2
Thermal Conductivity (cal/cm sec°C)	0.3W (m K) at (13°C)
Thermal Expansion coefficient (/°C)	$18.8x10^{-6}$(Parellel to C axis) $1.31x10^{-6}$(Vertical to C axis)



MAGNESIUM FLUORIDE REFRACTIVE INDEX vs. WAVELENGTH

λ(µm)	n_e	n_o	λ(µm)	n_e	n_o
0.20	1.43	1.42	0.34	1.40	1.39
0.23	1.42	1.41	0.56	1.39	1.38
0.27	1.41	1.40			