

Zinc Sulfide Cleartran® (ZnS)

Custom sizes and specifications are available

CRYSTALLOGRAPHIC

Syngony Cubic

OPTICAL

Refractive Index at $n_{0.4678}$ 2.44915
 Refractive Index at $n_{10.0}$ 2.20084
 Thermal Coefficient of Refractive Index
 at 0.6328 microns 5.43×10^{-5}
 Spectral Range, microns 0.37-14

THERMAL

Thermal Linear Expansion, deg C⁻¹ 6.5×10^{-6}
 Thermal Conductivity, W/(m•deg C) 27.2
 Specific Heat Capacity, J/(kg•deg C) 0.515×10^3

MECHANICAL

Density, g/cm³ at 20 deg C 4.09
 Young Modulus (E), Pa 7.45×10^{10}
 Vickers Microhardness, Pa 1.47×10^7
 Poisson Ratio 0.28

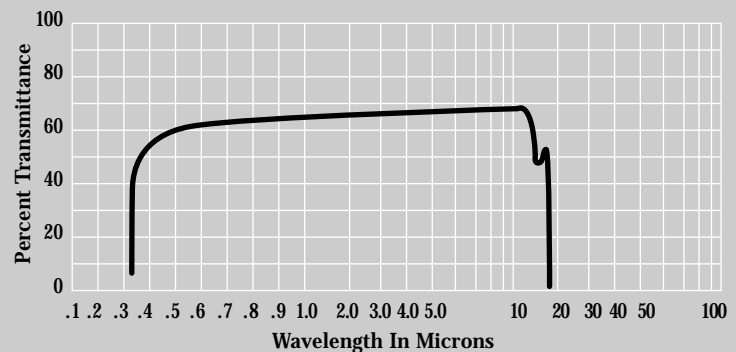
CHEMICAL

Molecular Weight 97.43
 Solubility
 in water, gram/100 cm³ 65×10^{-6}
 in acids soluble

Refr. Index n vs. Wavelength λ

WAVELENGTH, MICRONS	REFRACTIVE INDEX
0.4047	2.54515
0.4358	2.48918
0.4800	2.43691
0.5461	2.38838
0.6678	2.34033
0.7800	2.31669
0.8943	2.30183
1.0140	2.29165
2.0581	2.26442
3.000	2.25772
4.000	2.25231
5.000	2.24661
8.000	2.22334
9.000	2.21290
10.000	2.20084
12.000	2.17101
13.000	2.15252

Transmittance τ (λ) vs. Wavelength λ



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