

Thallium Bromoiodide (KRS-5)

Custom sizes and specifications are available

CRYSTALLOGRAPHIC

Syngony	Cubic
Symmetry Class	m3m Pm3m
Lattice Constants, Angstrom	a = 0.4125

OPTICAL

Refractive Index at $n_{10.6}$	2.37
Transmission Range, Microns	0.6 - 40

THERMAL

Thermal Linear Expansion, deg C ⁻¹ for 0+/- 20 deg C	6×10^{-6}
Thermal Conductivity, W/(m * deg C) at 25 deg C	0.54
Specific Heat Capacity, J/(kg * deg C)	0.151×10^3
Melting Point, deg C	414.5

MECHANICAL

Density, g/cm ³ at 20 deg C	7.371
Vickers Microhardness, Pa	35×10^7
Young Modulus E, Pa	3.1×10^{10}
Shear Modulus (G), Pa	1.2×10^{10}
Poisson Ratio	0.37

CHEMICAL

Molecular Weight	42 mole% TlBr/58 mole% TlI
Solubility	
in water, gram/100cm ³	0.05
in acids	soluble

Refr. Index n vs. Wavelength λ

WAVELENGTH, MICRONS	REFRACTIVE INDEX
0.6	2.60
1.0	2.45
2.0	2.40
4.0	2.38
6.0	2.38
8.0	2.37
10.0	2.37
20.0	2.34
30.0	2.29
40.0	2.21

Transmittance τ (λ) vs. Wavelength λ



For Reference Only

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