

Caesium Iodide (CsI)

Custom sizes and specifications are available

CRYSTALLOGRAPHIC

Syngony	Cubic
Symmetry Class	m3m Pm3m
Lattice Constants, Angstrom	a=4.567

OPTICAL

Refractive Index at $n_{10.0}$	1.740
Refractive Index $n_{40.0}$	1.678
Thermal Coefficient of Refractive Index for 0-30 deg C	0.9×10^{-4}
Transmission Range, microns	0.25-55
Absorbance $\mu (\lambda), \text{cm}^{-1}$	
at 40 microns	0.1
at 45 microns	0.33
at 50 microns	0.5

THERMAL

Thermal Linear Expansion, deg C ⁻¹ for 0-30 deg C	48.1×10^{-6}
Thermal Conductivity, W/(m•deg C) at 25 deg C	1.1
Specific Heat Capacity, J/(kg•deg C)	200
Melting Point, deg C	621

MECHANICAL

Density, g/cm ³	4.509
Mohs Hardness	1-2
Young Modulus (E), Pa	2×10^9
Shear Modulus (G), Pa	6.24×10^9
Poisson Ratio	0.214

CHEMICAL

Molecular Weight	259.81
Solubility	
in water, gram/100 cm ³	44
in alcohol	soluble

Refr. Index n vs. Wavelength λ

WAVELENGTH, MICRONS	REFRACTIVE INDEX
0.25	2.210
0.5	1.807
1.0	1.758
2.0	1.747
3.0	1.744
5.0	1.743
10.0	1.740
15.0	1.735
20.0	1.728
25.0	1.719
30.0	1.708
35.0	1.695
40.0	1.678
45.0	1.659
50.0	1.637
55.0	1.611

