

## Rubidium Iodide (RbI)

## MATERIALS DATA

Rubidium Iodide is produced by the sealed-ampoule Stockbarger technique. It is the most deliquescent of the rubidium salts.

**APPLICATIONS:** Rubidium Iodide has only specialist applications.

Transmission Range	0.3 to 50 $\mu$ m
Refractive Index	1.609 at 10 $\mu$ m (1)
Reflection Loss	10.4% at 10 $\mu$ m (2 surfaces)
Absorption Coefficient	n/a
Reststrahlen Peak	n/a
dn/dT	-56 x 10 <sup>-6</sup> K <sup>-1</sup>
dn/d $\mu$ = 0	n/a
Density	3.55 g/cc
Melting Point	642°C
Thermal Conductivity	9.9 W m <sup>-1</sup> K <sup>-1</sup>
Thermal Expansion	39 x 10 <sup>-6</sup> K <sup>-1</sup> at 283K
Hardness	n/a
Specific Heat Capacity	242 J Kg <sup>-1</sup> K <sup>-1</sup> at 283K
Dielectric Constant	n/a
Youngs Modulus (E)	n/a
Shear Modulus (G)	n/a
Bulk Modulus (K)	11 GPa
Elastic Coefficients	C <sub>11</sub> =27.6; C <sub>12</sub> =3.7; C <sub>44</sub> =2.79
Apparent Elastic Limit	n/a
Poisson Ratio	n/a
Solubility	152g/100g water
Molecular Weight	212.37
Class/Structure	Cubic FCC, NaCl, Fm3m, (100) cleavage



# Rubidium Iodide (RbI)

# MATERIALS DATA

$\mu\text{m}$	No	$\mu\text{m}$	No	$\mu\text{m}$	No
0.25	2.059	0.35	1.736	0.50	1.663
0.80	1.631	1.00	1.624	2.00	1.615
5.00	1.612	10.0	1.609	20.0	1.596
30.0	1.573	40.0	1.537	45.0	1.514
50.0	1.486	55.0	1.452	60.0	1.411

