Rubidium Bromide (RbBr)

Rubidium Bromide is produced by the sealed-ampoule Stockbarger technique.

APPLICATIONS: Rubidium Bromide has only specialist applications.

Transmission Range	0.22 to 40µm
Refractive Index	1.525 at 10µm (1)
Reflection Loss	8.2% at 10µm (2 surfaces)
Absorption Coefficient	1.6×10^{-3} cm^{-1} at 10.6µm
Reststrahlen Peak	n/a
dn/dT	-45×10^{-6} K^{-1}
dn/dµ = 0	n/a
Density	3.35 g/cc
Melting Point	682°C
Thermal Conductivity	12.2 W m^{-1} K^{-1} at 378K
Thermal Expansion	36.98×10^{-6} K^{-1} at 273K
Hardness	n/a
Specific Heat Capacity	311 J Kg^{-1} K^{-1}
Dielectric Constant	55
Youngs Modulus (E)	n/a
Shear Modulus (G)	n/a
Bulk Modulus (K)	13.7 GPa
Elastic Coefficients	C_{11}=31.5; C_{12}=4.8; C_{44}=3.82
Apparent Elastic Limit	n/a
Poisson Ratio	n/a
Solubility	98g/100g water
Molecular Weight	165.38
Class/Structure	Cubic FCC, NaCl, Fm3m, (100) cleavage

(1) Handbook Optical Constants, ed Palik, V3, ISBN 0-12-544423-0

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µm	No	µm	No	µm	No
0.240	1.754	0.350	1.603	0.400	1.583
0.500	1.563	0.600	1.552	0.70	1.546
0.80	1.543	0.90	1.540	1.00	1.538
2.00	1.533	5.00	1.530	10.0	1.525
15.0	1.517	20.0	1.505	25.0	1.489
30.0	1.469	35.0	1.444	40.0	1.412