

DATA SHEET

BARIUM FLUORIDE

1. Material Properties

Optical Properties	
Transmission Range	150 nm to 11 μ m
Refractive Index	1.4626@2.6um
Reflection Loss	7.7%@0.6um; 6.0%@4.0um
Absorption Coefficient	47um
dn/dT[K-1]@300K5@0.5um	-1.65*10-5
Physical Properties	
Density	4.89 g/cm ³
Melting Point	1386°C
Thermal Conductivity	11.72 Wm-1K-1 @13°C
Thermal Expansion	18.1*10-6/°C (-100°C, +120°C)
Knoop Hardness	82 with 500g indenter
Specific Heat Capacity	410 J(Kg.k) @27°C
Dielectric Constant	7.33@f=2MHz
Youngs Modulus (E)	56.4 Gpa
Shear Modulus (G)	25.4 Gpa
Bulk Modulus (K)	268.89 Gpa
Elastic Coefficient	C11=90.4; C12=40.6; C44=25.3
Apparent Elastic Limit	26.89
Poisson Ratio	0.343
Chemical Properties	
Solubility	0.17g/100g@23°C
Molecular Weight	175.3
Structure	Cubic Crystal
Cleavage Plane	(111)

2. Transmission Curve

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