

## Mateck Potassium Bromide (KBr)

Category : Ceramic , Halide

Material Notes:

Optical crystals

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_Mateck-Potassium-Bromide-KBr.php](http://www.lookpolymers.com/polymer_Mateck-Potassium-Bromide-KBr.php)

Physical Properties	Metric	English	Comments
Density	2.75 g/cc	0.0994 lb/in <sup>3</sup>	
Solubility	53.48 ppm	53.48 ppm	
a Lattice Constant	6.598 Å...	6.598 Å...	
c Lattice Constant	6.598 Å...	6.598 Å...	
Molecular Weight	119.01 g/mol	119.01 g/mol	

Mechanical Properties	Metric	English	Comments
Vickers Microhardness	100	100	MPa
Hardness, Mohs	1.5	1.5	
Modulus of Elasticity	13.8 GPa	2000 ksi	in <110> direction
	33.0 GPa	4790 ksi	in <100> direction
Poissons Ratio	0.138	0.138	
Shear Modulus	5.10 GPa	740 ksi	in <110> direction
	9.00 GPa	1310 ksi	in <100> direction

Thermal Properties	Metric	English	Comments
CTE, linear	36.6 - 39.6 Åµm/m-Å°C	20.3 - 22.0 Åµin/in-Å°F	
	@Temperature -60.0 - 60.0 Å°C	@Temperature -76.0 - 140 Å°F	
Specific Heat Capacity	0.4522 J/g-Å°C	0.1081 BTU/lb-Å°F	
Thermal Conductivity	4.81 W/m-K	33.4 BTU-in/hr-ftÅ²-Å°F	
	@Temperature 46.0 Å°C	@Temperature 115 Å°F	
Melting Point	728 Å°C	1340 Å°F	

Optical Properties	Metric	English	Comments
Refractive Index	1.5251	1.5251	n10.6
	1.5639	1.5639	at ne
	1.4253	1.4253	
	@Wavelength 30000 nm	@Wavelength 30000 nm	
	1.5319	1.5319	
	@Wavelength 6000 nm	@Wavelength 6000 nm	
Transmission, Visible	1.57	1.57	
	@Wavelength 500 nm	@Wavelength 500 nm	
	2.0995	2.0995	
	@Wavelength 200 nm	@Wavelength 200 nm	
Transmission, Visible	98 %	98 %	Internal Transmittance
	@Wavelength 500 nm	@Wavelength 500 nm	
IR Transmittance	26 %	26 %	Internal Transmittance
	@Wavelength 30000 nm	@Wavelength 30000 nm	
IR Transmittance	98 %	98 %	Internal Transmittance
	@Wavelength 15000 nm	@Wavelength 15000 nm	
UV Transmittance	48 %	48 %	Internal Transmittance
	@Wavelength 200 nm	@Wavelength 200 nm	

Descriptive Properties	Value	Comments
Cleavability	(100)	perfect
Constants of Elastic Compliance (Pa <sup>-1</sup> )	1.9492E-10	S44
	3.029E-11	S11
	-4.18E-12	S12
Symmetry Class	m3m	
Syngony	cubic	
Thermal Coefficient of Refractive Index	-3.95E-5 to -4.29E-5	at 3.39 microns for $\hat{A}\pm 60\hat{A}^{\circ}\text{C}$
Transmission Range (microns)	0.21 - 28	

Descriptive Properties

Value

Comments

## Contact Songhan Plastic Technology Co.,Ltd.

Website : [www.lookpolymers.com](http://www.lookpolymers.com)

Email : [sales@lookpolymers.com](mailto:sales@lookpolymers.com)

Tel : +86 021-51131842

Mobile : +86 13061808058

Skype : lookpolymers

Address : United North Road 215,Fengxian District, Shanghai City,China