Hilger Crystals
A Dynasil Company

CRYSTAL MATERIALS INDEX

Potassium Chloride

KCl

Potassium Chloride finds application for IR laser windows due to its high laser damage threshold.

Properties	Value
Absorption Coefficient (cm-1)	6.5x10-3 at 10.6µ
Apparent Elastic Limit (MPa)	2.3
Bulk Modulus (K) (GPa)	17.36
Cleavage Planes	(100)
Density (g.cm-3)	1.99
Dielectric Constant	4.64 at 1MHz
Elastic Coefficient C11	39.8
Elastic Coefficient C12	6.2
Elastic Coefficient C44	6.25
Hardness (knoop)	9.3
Melting Point (K)	1052
Poisson Ratio	0.216
Reflection Loss (%)	6.7 at 10µ
Refractive Index	1.45 at 10µ
Restrahlen Peak (µ)	63.1
Shear Modulus (G) (GPa)	6.24
Solubility (g/100g H_2O)	34.7 at 293K
Specific Heat Capacity (J·kg·m-1·K-1)	690
Stability	Slightly Hygroscopic
Structure	Cubic
Thermal Conductivity (W·m-1·K-1)	6.53 at 300K
Thermal Expansion (K-1 at 300K)	36x10-6
Transmission Range (µ)	0.21-20.0
Youngs Modulus (E) (GPa)	29.67

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