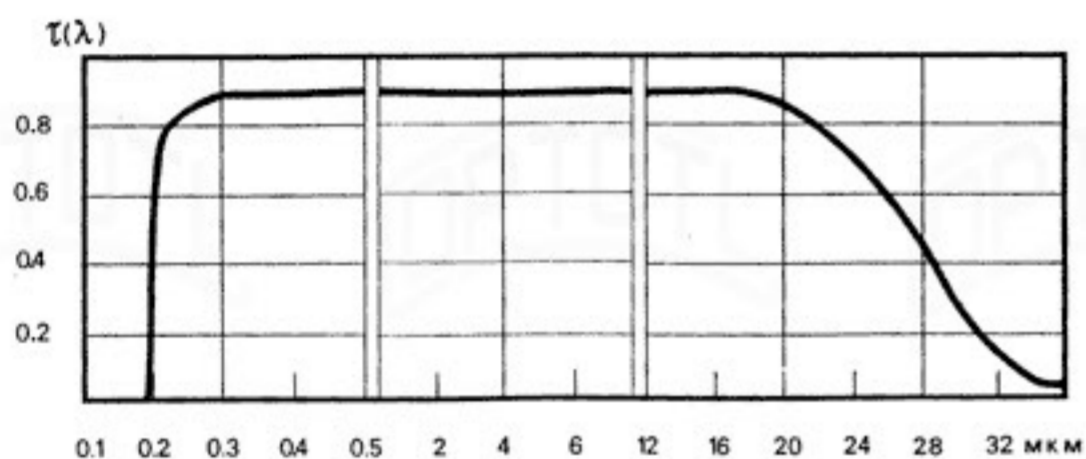


POTASSIUM BROMIDE KBr

Syngony	Cubic
Symmetry Class	m3m
Lattice Constants, Angstroms	a=6.598 c=a
Cleavability	(100), perfect

Refractive Index at n_e	1.5639
Refractive Index at $n_F - n_C$	0.0617
Refractive Index at $n_{10.6}$	1.5251
Refractive Index, $n_{8.0} - n_{12.5}$	0.0099
Thermal Coefficient of Refractive Index at $\lambda = 3.39$ microns, $^{\circ}\text{C}^{-1}$ for $\pm 60^{\circ}\text{C}$	$(-3.95 \dots -4.29) \cdot 10^{-5}$
Transmission Range, microns (thickness 10mm)	0.21, 28

Transmittance $t_i(\lambda)$ vs. wavelength λ KBr Potassium Bromide



Internal Transmittance $t_i(\lambda)$ vs. wavelength λ	
λ, MKM	$t_i(\lambda)$
0.2	0.48
0.5	0.98
1.0	0.98
3.0	0.98
5.0	0.98
6.0	0.98
7.0	0.98
8.0	0.98
9.0	0.98
10.0	0.98
12.0	0.98
15.0	0.98
20.0	0.92
30.0	0.26

Refractive Index n vs. wavelength λ	
λ, MKM	$n(\lambda)$
0.2	2.0995
0.5	1.5700
1.0	1.5444
2.0	1.5383
3.0	1.5368
4.0	1.5357
5.0	1.5346
6.0	1.5334
7.0	1.5319
8.0	1.5303
9.0	1.5285
10.0	1.5265
11.0	1.5242
12.0	1.5217
12.5	1.5204
15.0	1.5127
20.0	1.4924
30.0	1.4253

Thermal Linear Expansion $\alpha_t, ^{\circ}\text{C}^{-1}$ for $\pm 60^{\circ}\text{C}$	$(36.6, 39.6) \cdot 10^{-6}$
Thermal Conductivity, $\text{W}/(\text{m} \cdot ^{\circ}\text{C})$ at 46°C	4.81
Specific Heat Capacity, $\text{J}/(\text{kg} \cdot ^{\circ}\text{C})$ at 100°C	452.2
Melting Point, $^{\circ}\text{C}$	728

Density, g/cm^3 at 20°C	2.75	
Mohs Hardness	1.5	
Vickers Microhardness, Pa	$1 \cdot 10^8$	
Constants of Elastic Compliance, Pa^{-1}	S_{11}	$30.29 \cdot 10^{-12}$
	S_{12}	$-4.18 \cdot 10^{-12}$
	S_{44}	$194.92 \cdot 10^{-12}$
Poisson Ratio	0.278	
Young Modulus (E), Pa	$\langle 100 \rangle$	$3.30 \cdot 10^{10}$
	$\langle 100 \rangle$	$1.38 \cdot 10^{10}$
Shear Modulus (G), Pa	(100)	$0.90 \cdot 10^{10}$
	(100)	$0.51 \cdot 10^{10}$

Solubility KBr	
in water at 20°C $\text{g}/100\text{cm}^3$	in acids
53.48	soluble

"Opto-Technological Laboratory" produces lenses, windows, prisms, wedges, windows for spectrophotometers and others optical components according to customers' specifications and drawings out of crystals potassium bromide (KBr).