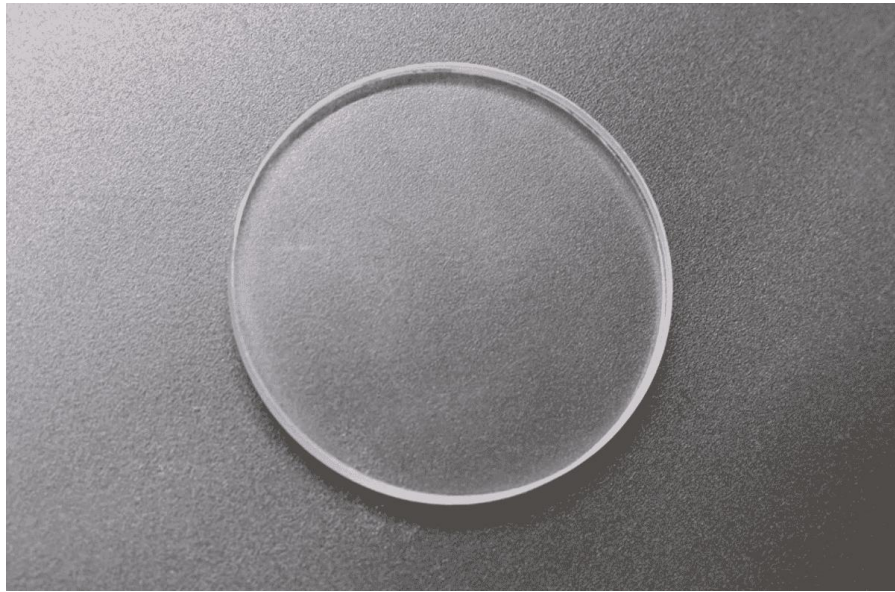


KBr (Potassium Bromide) circular window/crystal 30.0mm x 5.0mm, 0.23-25 μ m



● Product Description

KBr (Potassium Bromide) is one of the most useful materials for general spectral windows and applications where humidity sensitivity is not a significant concern. KBr is the most commonly used spectral material in IR spectrophotometers. Potassium bromide is grown using the Kyropoulos technique. KBr is prone to cracking, but it can be polished to higher standards under humidity-controlled conditions. customer needs.



● Product features

Wide infrared transmission range; Low scattering; Easy to process;

Moisture sensitivity requires protection; High chemical purity

● Part Number

MP-OPW-KBr-C30-5-IR

● Application area

Fourier transform infrared spectroscopy (FTIR) | Gas analysis | Thermal imaging | Laboratory optics | Environmental monitoring

● Core parameters

Wavelength	Reflective index	Size
0.23-25um	1.527@10um	30mmΦx5mm

● General Parameters

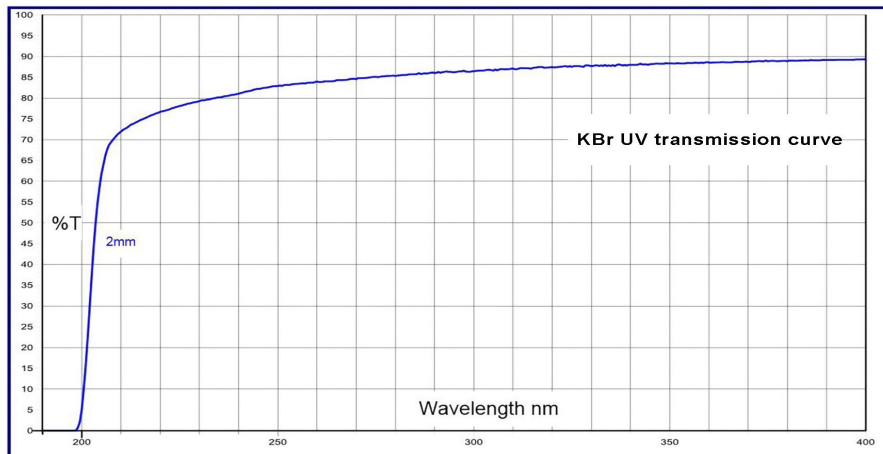
Technical Parameters

Transmission range	0.23~25μm
Refractive index	1.527μm at 10μm (1)
Reflection loss	8.3% at 10μm
Absorption coefficient	3×10^{-6} @ 1064nm; $14 \times 10^{-6} \text{cm}^{-1}$ @ 10.6 (7)
Absorption peak	77.6μm
dn/dT:	$-40.83 \times 10^{-6} / ^\circ\text{C}$ (1)
dn/dμ=0:	4.2μm
Density	2.753g/cc (2)
Melting point	730°C
Thermal conductivity	$4.816 \text{W m}^{-1} \text{K}^{-1}$ @ 319K (3)
Thermal expansion	$43 \times 10^{-6} / ^\circ\text{K}$ @ 300K (4)
Hardness	In
Specific heat capacity	$435 \text{JKg}^{-1} \text{K}^{-1}$
Dielectric constant	4.9 @ 1MHz (6)
Young's modulus (E)	26.8GPa (4)
Shear modulus (G)	5.08GPa (4)
Bulk modulus (K)	15.03GPa (4)
Elastic modulus	$C_{11}=34.5 C_{12}=5.4 C_{44}=5.08$ (5)
Fracture modulus	3.3MPa (475psi) (4)
Poisson's ratio	0.203
Solubility	53.48g/100g water, 273K
Molecular weight	119.01
Class/Structure	Cubic FCC, NaCl, Fm3m, (100) cleavage

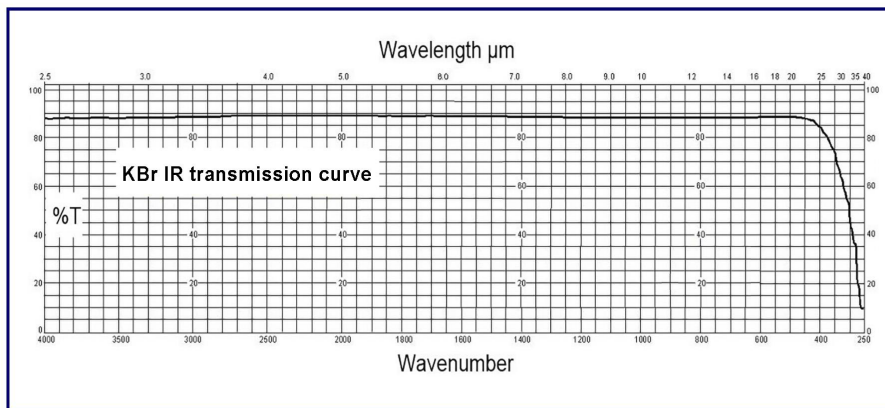
Assembly reference for KBr beam splitter



Spectral transmission curve



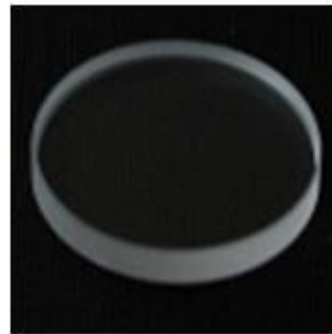
KBr IR transmission curve



Refractive index: (No = Ordinary Ray)

µm	No	µm	No	µm	No
0.405	1.5898	0.436	1.5815	0.486	1.5718
0.508	1.5684	0.546	1.5639	0.587	1.5600
0.643	1.5559	0.707	1.5524	1.014	1.5441
2.440	1.5373	3.419	1.5361	4.258	1.5352
6.238	1.5329	8.662	1.5290	9.724	1.5270
11.04	1.5240	14.29	1.5150	17.40	1.5039
19.91	1.4929	23.86	1.4714	25.14	1.4632
28.00	1.4423	30.00	1.4253		

KBr circular window



Ordering info

PN#	Specs (D×L)(mm)	Thickness(L)	S/D	Material grade
MP-OPW-KBr-C13-2-IR	13.0mm×2.0mm	±0.1mm	60/40	IR
MP-OPW-KBr-C20-2-IR	20.0mm×2.0mm	±0.1mm	60/40	IR
MP-OPW-KBr-C25-2-IR	25.0mm×2.0mm	±0.1mm	60/40	IR
MP-OPW-KBr-C25-4-IR	25.0mm×4.0mm	±0.1mm	60/40	IR
MP-OPW-KBr-C525-5-IR	25.0mm×5.0mm	±0.1mm	60/40	IR
MP-OPW-KBr-C30-5-IR	30.0mm×5.0mm	±0.1mm	60/40	IR
MP-OPW-KBr-C40-5-IR	40.0mm×5.0mm	±0.1mm	60/40	IR
MP-OPW-KBr-C45-5-IR	45.0mm×5.0mm	±0.1mm	60/40	IR
KMP-OPW-KBr-C50-5-IR	50.0mm×5.0mm	±0.1mm	60/40	IR

KBr rectangular window



Ordering info

PN#	Specs(D×L)(mm)	Material grade
MP-OPW-KBr-23-41-5-D-IR	23.0×41.0×5.0mm Punched	IR polished
MP-OPW-KBr-23-41-5-IR	23.0×41.0×5.0mm Not punched	IR polished