

Optical Glass (N-BK7 types)

MATERIALS DATA

APPLICATIONS: N-BK7 is a Schott™ designation for the most common Borosilicate Crown glass used for a wide variety of visible applications. The basic data here is given for N-BK7. We recommend that full optical design data on N-BK7 and other glasses be found by referring to the relevant glass manufacturer.

Transmission Range	350nm to 2.5 μ m
Refractive Index	1.51680 @ 587.5618nm (Yellow Helium Line)
Reflection Loss	8.1% at 587.5618nm (2 surfaces)
Absorption Coefficient	n/a
Reststrahlen Peak	n/a
dn/dT	n/a
dn/d μ = 0	n/a
Density	2.51 g/cc
Melting Point	557°C (Transformation Temperature)
Thermal Conductivity	1.114 W m ⁻¹ K ⁻¹
Thermal Expansion	7.1 x 10 ⁻⁶ K ⁻¹
Hardness	Knoop 610
Specific Heat Capacity	858 J Kg ⁻¹ K ⁻¹
Dielectric Constant	n/a
Youngs Modulus (E)	82 GPa
Shear Modulus (G)	n/a
Bulk Modulus (K)	34 GPa
Elastic Coefficients	n/a
Apparent Elastic Limit	63.5MPa (9206psi)
Poisson Ratio	0.206
Solubility	Insoluble in water
Molecular Weight	n/a
Class/Structure	Amorphous glass

