## **Optical Glass (N-BK7 B270 and others)**

**Specialist Data Sheet** 

Product Name Optical Glass (N-BK7 B270 and others)

Transmission Range 350nm to 2.5um

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 See Schott Table

dN/du n/a Density 2.51

Melting Point 557°C (Transformation Temperature)

Thermal Conductivity  $1.114 \text{ W m}^{-1} \text{ K}^{-1}$ Thermal Expansion  $7.1 \times 10^{-6} \text{ K}^{-1}$ Hardness Knoop 610

Specific Heat Capacity 858 J Kg<sup>-1</sup> K<sup>-1</sup>

Dialectric 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

#### Notes:

#### Application:

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. Full optical design data on N-BK7 and other glasses can be found by following the web links at the bottom of this page.

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### Transmission Range Graph:

