

TECHSPEC[®] 20mm Dia., 2mm Thick, MgF₂ Coated λ/4 N-BK7 Window



Stock **#23-362** **6 In Stock**

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1

+

C\$127^{.40}

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Volume Pricing	
Qty 1-5	C\$127.40 each
Qty 6-25	C\$101.50 each
Qty 26-49	C\$96.60 each
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130.00	#Sorting:
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General

Protective Window	Type:
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Physical & Mechanical Properties

18.00	Clear Aperture CA (mm):
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20.00 +0.00/-0.25	Diameter (mm):
2.00 ±0.20	Thickness (mm):
<1	Parallelism (arcmin):
Protective as needed	Bevel:
90	Clear Aperture (%):
Fine Ground	Edges:
0.21	Poisson's Ratio:
82	Young's Modulus (GPa):
610.00	Knoop Hardness (kg/mm²):

Optical Properties	
MgF ₂ (400-700nm)	Coating:
N-BK7	Substrate: □
1.516	Index of Refraction (n _d):
60-40	Surface Quality:
λ/4	Transmitted Wavefront, P-V:
64.17	Abbe Number (v _d):
R _{avg} ≤1.75% @ 400 - 700nm	Coating Specification:
400 - 700	Wavelength Range (nm):
10 J/cm² @ 532nm, 10ns	Damage Threshold, Reference:

Material Properties	
2.51	Density (g/cm³):
7.1 (-30 to +70°C) 8.3 (+20 to +300°C)	Coefficient of Thermal Expansion CTE (10 ⁻⁶ /°C):

Regulatory Compliance	
Compliant	RoHS 2015:
View	Certificate of Conformance:
Compliant	Reach 235:

Product Details

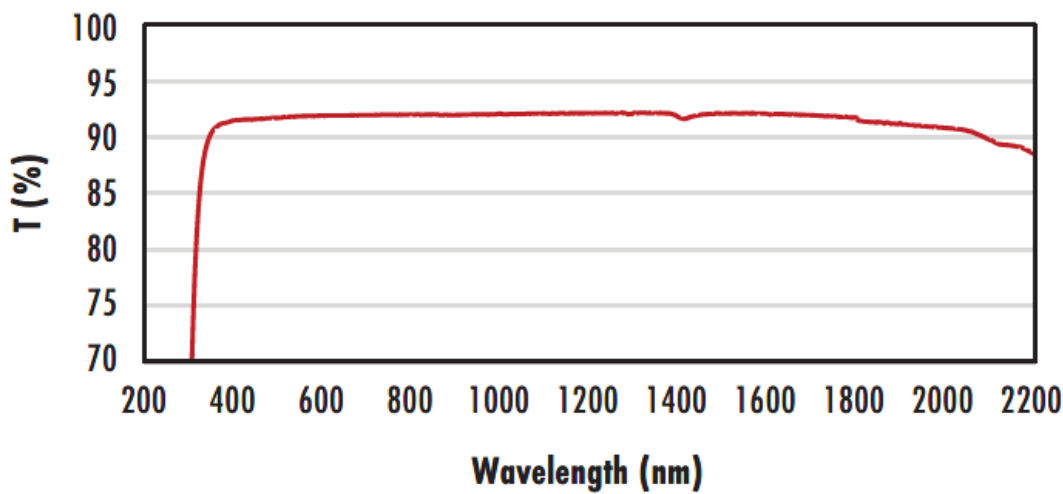
- Circular and Rectangular Sizes from 2mm to 200mm
- 8 Broadband Anti-Reflection Coating Options Available
- World's Largest Selection of Standard N-BK7 Windows
- Also Available with [Ultra-Thin N-BK7 Windows](#)

TECHSPEC® λ/4 N-BK7 Precision Windows are ideally suited for industrial and low-power laser applications. The high tolerance design yields minimal beam distortion and scatter. Broadband coating options extend the range of these precision windows through the visible and near-infrared spectra. TECHSPEC® λ/4 N-BK7 Precision Windows are offered in circular and rectangular sizes ranging from 2mm to 200mm.

Note: New additions to this product family may be specified with a transmitted wavefront distortion (TWD) specification instead of a surface flatness. For more information on the difference between these two specifications, see our application note on [Understanding Optical Windows](#).

Technical Information

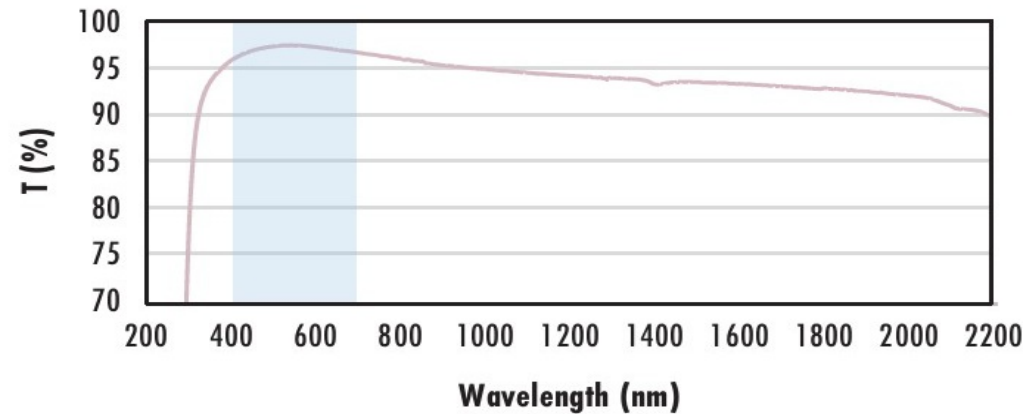
N-BK7	
Uncoated N-BK7 Typical Transmission	



Typical transmission of a 3mm thick, uncoated N-BK7 window across the UV - NIR spectra.

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**N-BK7 with MgF₂ Coating
Typical Transmission**



Typical transmission of a 3mm thick N-BK7 window with MgF₂ (400-700nm) coating at 0° AOI.

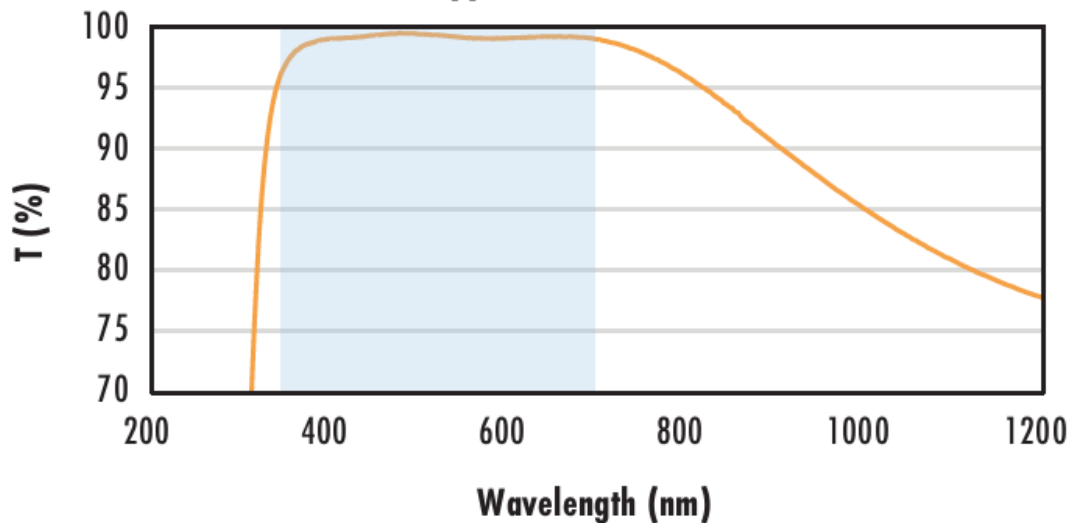
The blue shaded region indicates the coating design wavelength range, with the following specification:

$$R_{avg} \leq 1.75\% \text{ @ } 400 - 700\text{nm (N-BK7)}$$

Data outside this range is not guaranteed and is for reference only.

[Click Here to Download Data](#)

**N-BK7 with VIS-EXT Coating
Typical Transmission**



Typical transmission of a 3mm thick N-BK7 window with VIS-EXT (350-700nm) coating at 0° AOI.

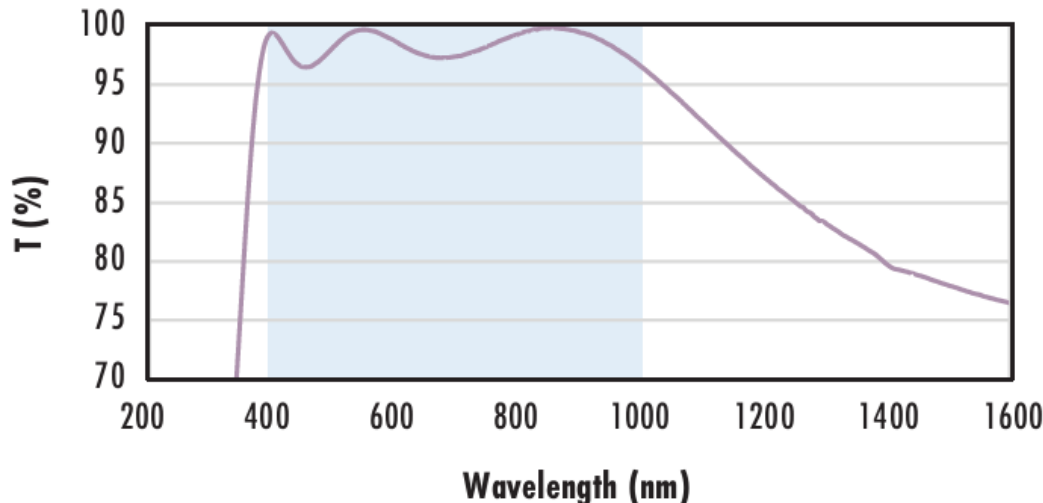
The blue shaded region indicates the coating design wavelength range, with the following specification:

$$R_{avg} \leq 0.5\% \text{ @ } 350 - 700\text{nm}$$

Data outside this range is not guaranteed and is for reference only.

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**N-BK7 with VIS-NIR Coating
Typical Transmission**



Typical transmission of a 3mm thick N-BK7 window with VIS-NIR (400-1000nm) coating at 0° AOI.

The blue shaded region indicates the coating design wavelength range, with the following specification:

$$R_{abs} \leq 0.25\% \text{ @ } 880\text{nm}$$

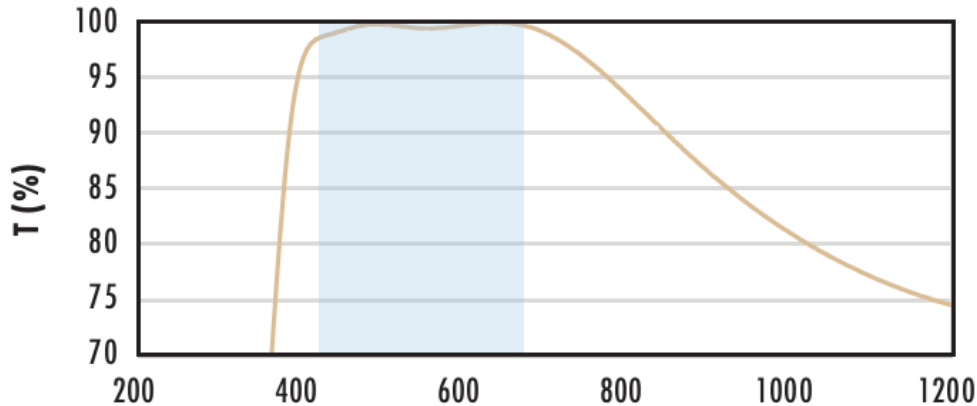
$$R_{avg} \leq 1.25\% \text{ @ } 400 - 870\text{nm}$$

$$R_{avg} \leq 1.25\% \text{ @ } 890 - 1000\text{nm}$$

Data outside this range is not guaranteed and is for reference only.

[Click Here to Download Data](#)

**N-BK7 with VIS 0° Coating
Typical Transmission**



Typical transmission of a 3mm thick N-BK7 window with VIS 0° (425-675nm) coating at 0° AOI.

The blue shaded region indicates the coating design wavelength range, with the following specification:

$$R_{avg} \leq 0.4\% \text{ @ } 425 - 675\text{nm}$$

Data outside this range is not guaranteed and is for reference only.

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