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TECHSPEC®

50mm N-BK7 Wedged Window

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Stock #34-246 14 In Stock

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1

+

€213^{.00}

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Volume Pricing	
Qty 1-5	€213,00 each
Qty 6-25	€170,00 each
Qty 26-49	€160,00 each
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Product Downloads

General	
Wedged Window	Type:
Physical & Mechanical Properties	
45.00	Clear Aperture CA (mm):
	Diameter (mm):

50.00 +0.0/-0.10	
3.00 ±0.20	Thickness (mm):
+0.0/-0.10	Dimensional Tolerance (mm):
Protective as needed	Bevel:
90.00	Clear Aperture (%):
Fine Ground	Edges:
0.21	Poisson's Ratio:
82	Young's Modulus (GPa):
610.00	Knoop Hardness (kg/mm²):
30' ±10'	Wedge Angle (arcmin):

Optical Properties	
Uncoated	Coating:
N-BK7	Substrate: □
1.516	Index of Refraction (n _d):
20-10	Surface Quality:
λ/10 (over 25mm aperture)	Surface Accuracy:
64.17	Abbe Number (v _d):
350 - 2200	Wavelength Range (nm):
λ/10 over 25mm Aperture	Surface Flatness (P-V):

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 247:

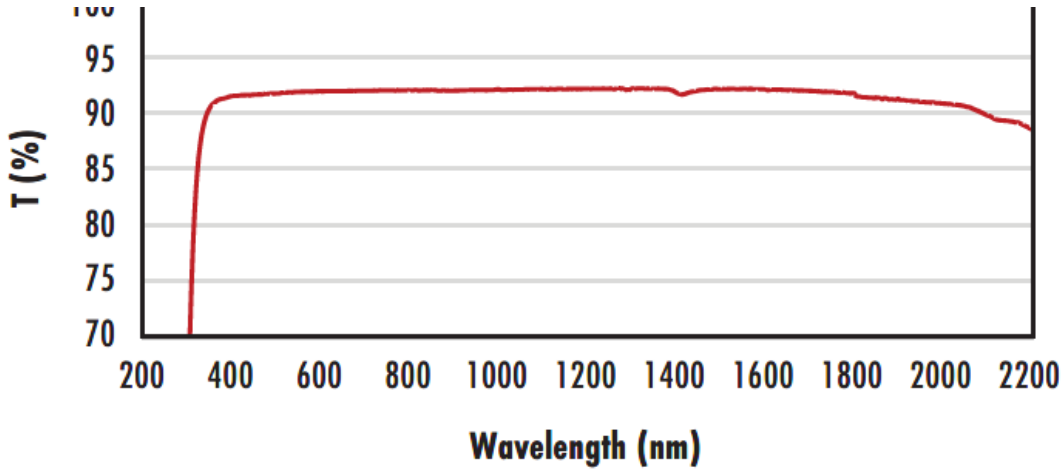
Product Details

- N-BK7 Substrates with a 30 Arcminute Wedge
- λ/10 Surface Flatness and 20-10 Surface Quality
- Ideal for Eliminating Etalon Effects
- [Fused Silica Wedged Windows](#) and [N-BK7 Flat Windows](#) Also Available

TECHSPEC® N-BK7 Wedged Windows are available in standard metric sizes with a 30 arcminute wedge. The wedge of these windows eliminate Etalon effects by preventing back surface reflections from traveling along the same optical path as the transmitted beam. In laser cavities, wedged windows help prevent laser instability, mode-hopping, and power spikes caused by these unwanted reflections. TECHSPEC N-BK7 Wedged Windows are often used as a cost-effective alternative to [Fused Silica Wedged Windows](#) in applications that do not require UV transmission or where high thermal stability is not required such as with low power visible or NIR lasers. Wedged windows can also be used as beam samplers or beam pick-off optics to monitor laser beam properties such as beam power over time.

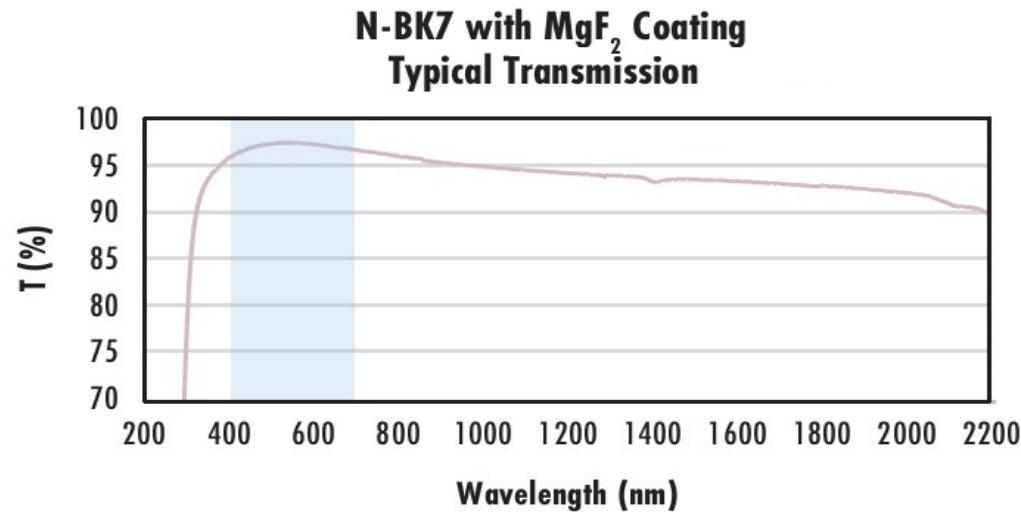
Technical Information





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

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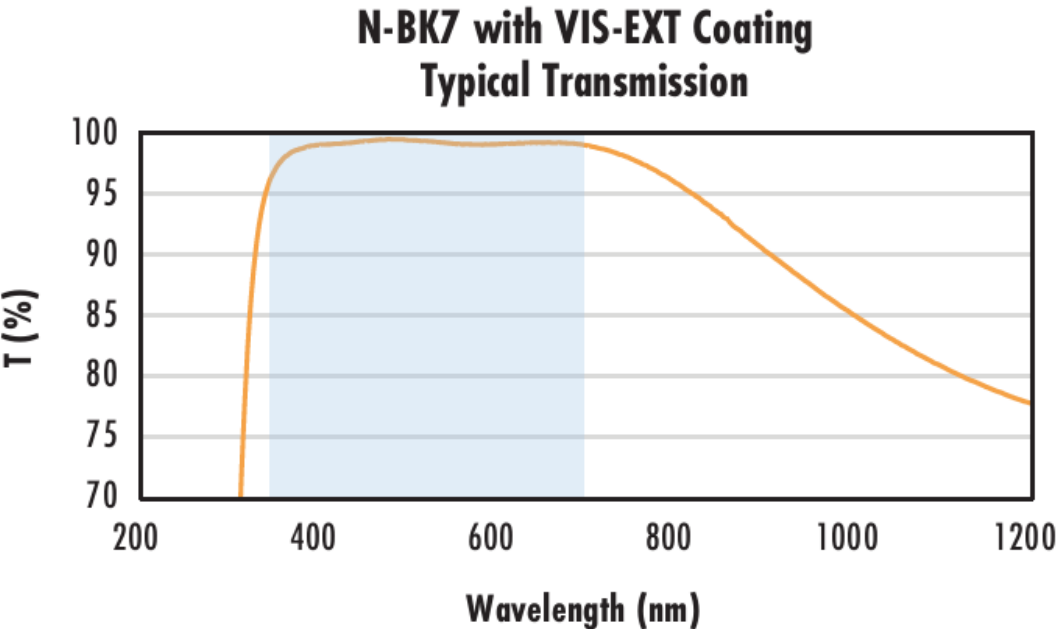
Typical transmission of a 3mm thick N-BK7 window with MgF2 (400-700nm) coating at 0° AOI.

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

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

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

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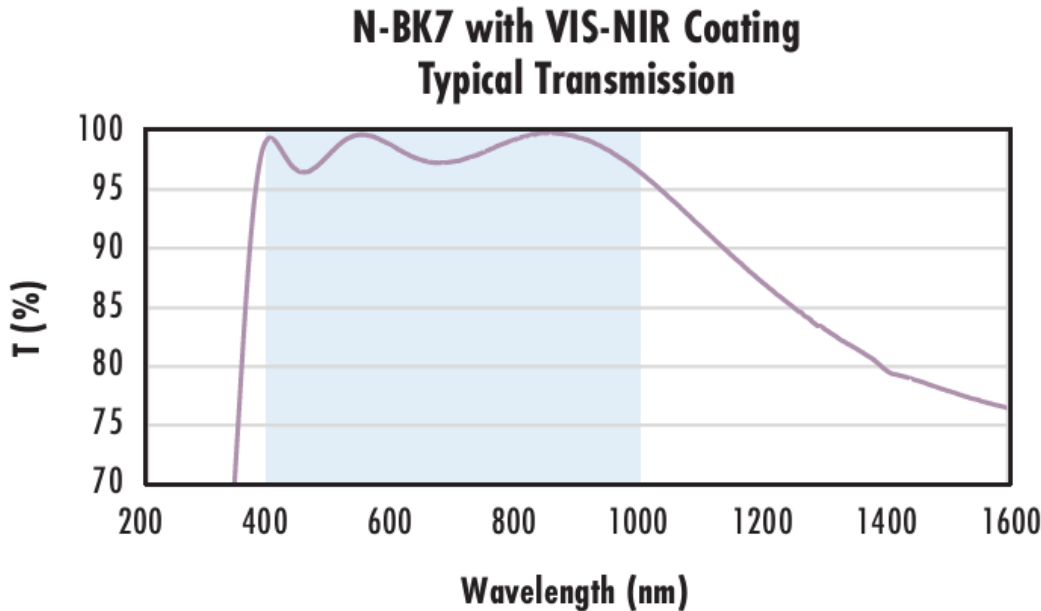
Typical transmission of a 3mm thick N-BK7 window with VIS-EXT (350-700nm) coating at 0° AOI.

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

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

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

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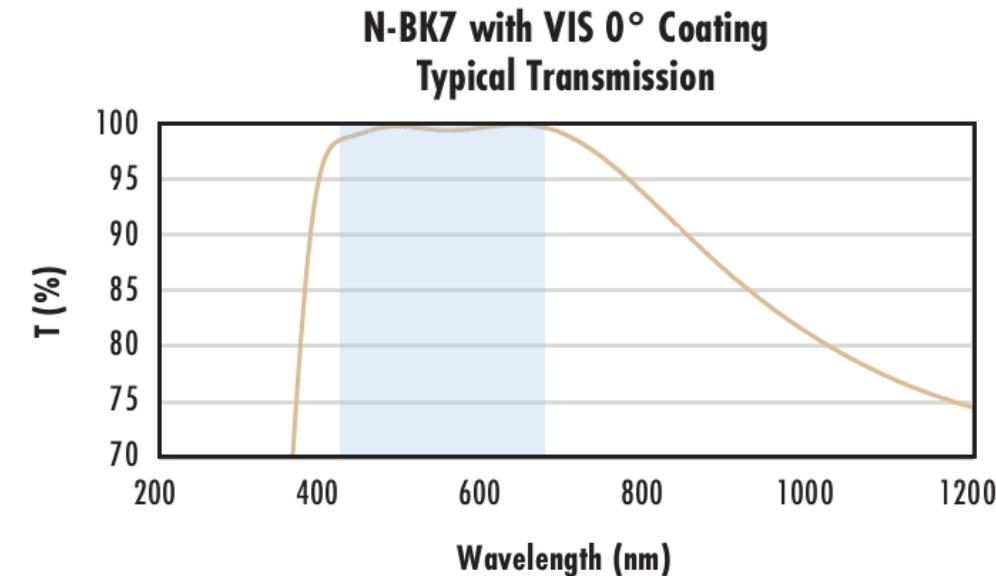
Typical transmission of a 3mm thick N-BK7 window with VIS-NIR (400-1000nm) coating at 0° AOI.

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

$R_{abs} \leq 0.25\% @ 880\text{nm}$
 $R_{avg} \leq 1.25\% @ 400 - 870\text{nm}$
 $R_{avg} \leq 1.25\% @ 890 - 1000\text{nm}$

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

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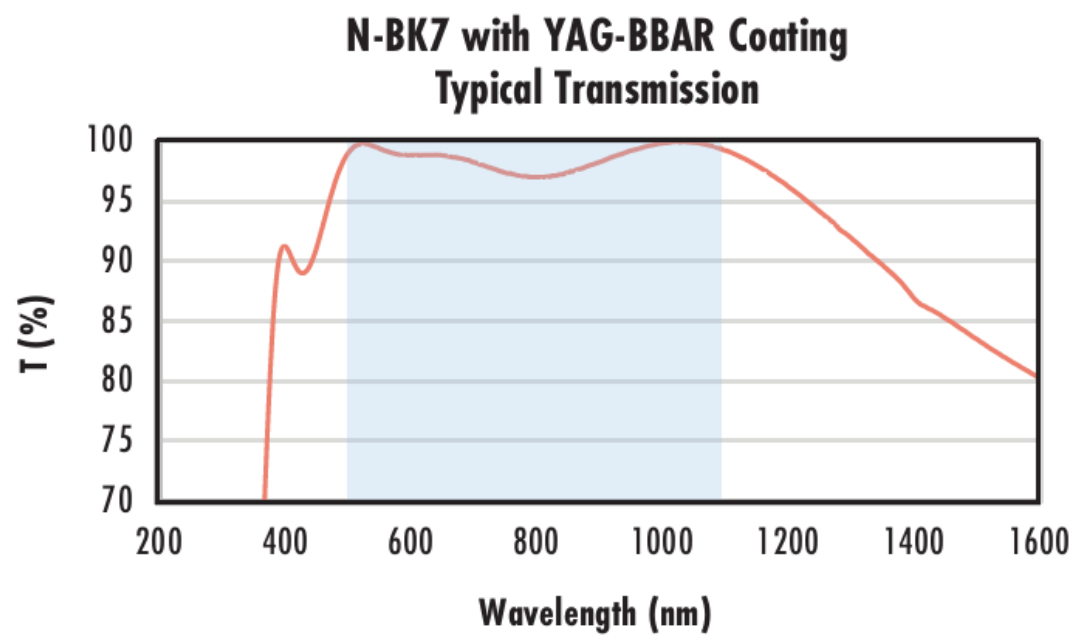
Typical transmission of a 3mm thick N-BK7 window with VIS 0° (425-675nm) coating at 0° AOI.

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

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

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

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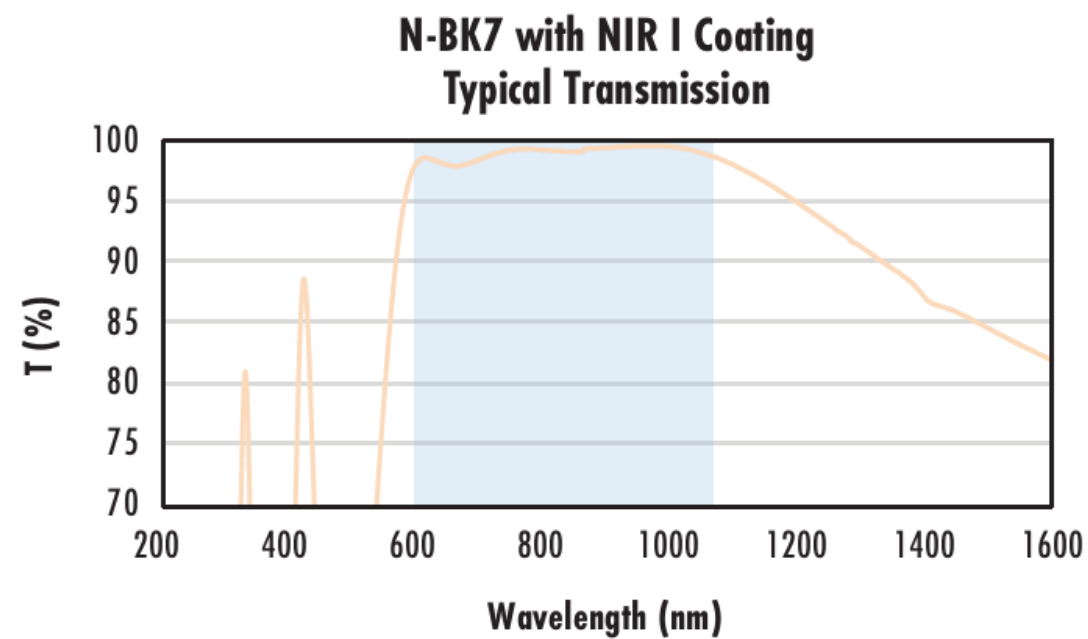
Typical transmission of a 3mm thick N-BK7 window with YAG-BBAR (500-1100nm) coating at 0° AOI.

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

$R_{abs} \leq 0.25\% @ 532nm$
 $R_{abs} \leq 0.25\% @ 1064nm$
 $R_{avg} \leq 1.0\% @ 500 - 1100nm$

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

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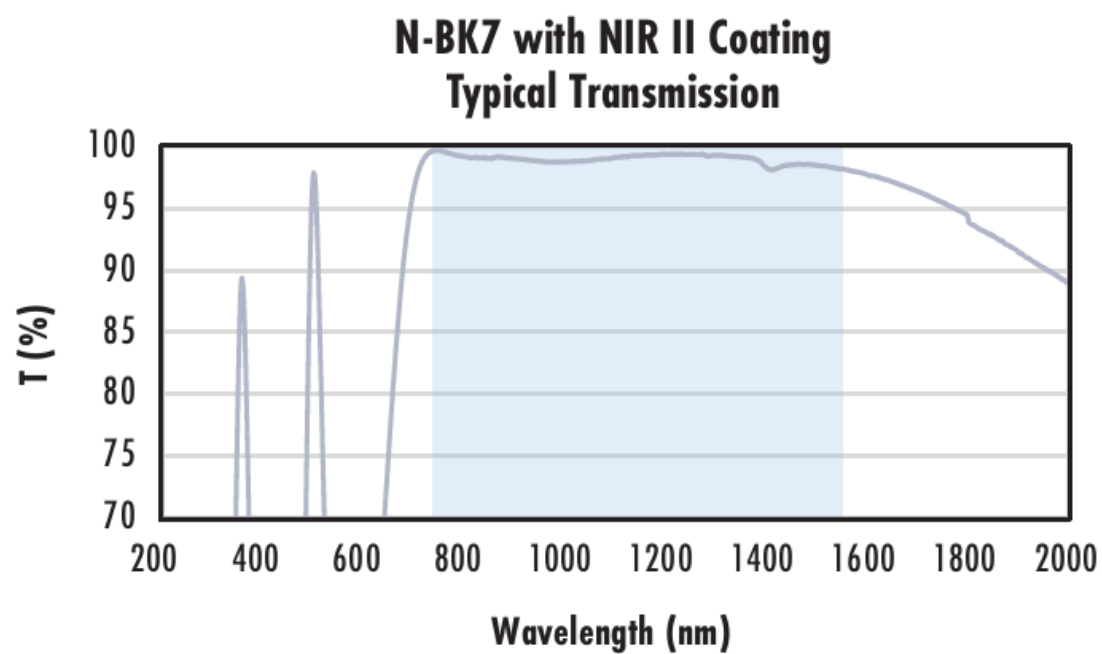
Typical transmission of a 3mm thick N-BK7 window with NIR I
(600 - 1050nm) coating at 0° AOI.

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

$$R_{avg} \leq 0.5\% @ 600 - 1050nm$$

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

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Typical transmission of a 3mm thick N-BK7 window with NIR II (750 - 1550nm) coating at 0° AOI.

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

$$\begin{aligned} R_{\text{abs}} &\leq 1.5\% @ 750 - 800\text{nm} \\ R_{\text{abs}} &\leq 1.0\% @ 800 - 1550\text{nm} \\ R_{\text{avg}} &\leq 0.7\% @ 750 - 1550\text{nm} \end{aligned}$$

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

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