

**TECHSPEC® 15mm Dia., 1mm Thick, VIS-NIR Coated  $\lambda/4$  N-BK7 Window**



Stock #23-404 [CONTACT US](#)

- 1 + £82<sup>40</sup>

**ADD TO CART**

Volume Pricing	
Qty 1-5	£82.40 each
Qty 6-25	£66.40 each
Qty 26-49	£61.60 each
Need More?	<a href="#">Request Quote</a>

! Prices shown are exclusive of VAT/local taxes

Product Downloads

108.00 #Sorting:

**General**

Protective Window Type:

**Physical & Mechanical Properties**

13.50 Clear Aperture CA (mm):

15.00 +0.00/-0.25	<b>Diameter (mm):</b>
1.00 ±0.20	<b>Thickness (mm):</b>
<1	<b>Parallelism (arcmin):</b>
Protective as needed	<b>Bevel:</b>
90	<b>Clear Aperture (%):</b>
Fine Ground	<b>Edges:</b>
0.21	<b>Poisson's Ratio:</b>
82	<b>Young's Modulus (GPa):</b>
610.00	<b>Knoop Hardness (kg/mm<sup>2</sup>):</b>

## Optical Properties

VIS-NIR (400-1000nm)	<b>Coating:</b>
<a href="#">N-BK7</a>	<b>Substrate:</b> <input type="checkbox"/>
1.516	<b>Index of Refraction (n<sub>d</sub>):</b>
60-40	<b>Surface Quality:</b>
λ/4	<b>Transmitted Wavefront, P-V:</b>
64.17	<b>Abbe Number (v<sub>d</sub>):</b>
R <sub>abs</sub> ≤0.25% @ 880nm R <sub>avg</sub> ≤1.25% @ 400 - 870 nm R <sub>avg</sub> ≤1.25% @ 890 - 1000nm	<b>Coating Specification:</b>
400 - 1000	<b>Wavelength Range (nm):</b>
5 J/cm <sup>2</sup> @ 532nm, 10ns	<b>Damage Threshold, By Design:</b>

## Material Properties

2.51	<b>Density (g/cm<sup>3</sup>):</b>
7.1 (-30 to +70°C) 8.3 (+20 to +300°C)	<b>Coefficient of Thermal Expansion CTE (10<sup>-6</sup>/°C):</b>

## Regulatory Compliance

<a href="#">Compliant</a>	<b>RoHS 2015:</b>
<a href="#">View</a>	<b>Certificate of Conformance:</b>
<a href="#">Compliant</a>	<b>Reach 235:</b>

## Product Details

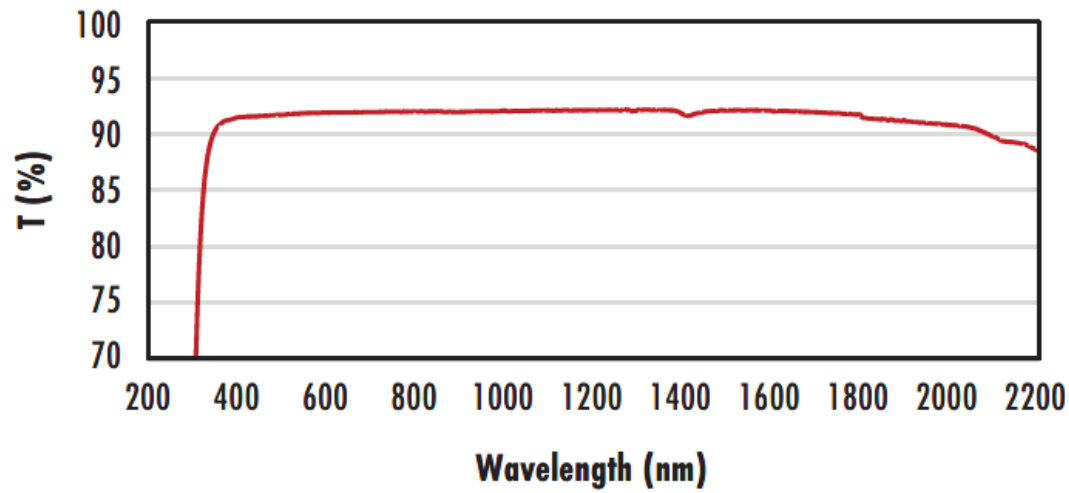
- Circular and Rectangular Sizes from 2mm to 200mm
- 8 Broadband Anti-Reflection Coating Options Available
- World's Largest Selection of Standard N-BK7 Windows
- Also Available with [Ultra-Thin N-BK7 Windows](#)

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

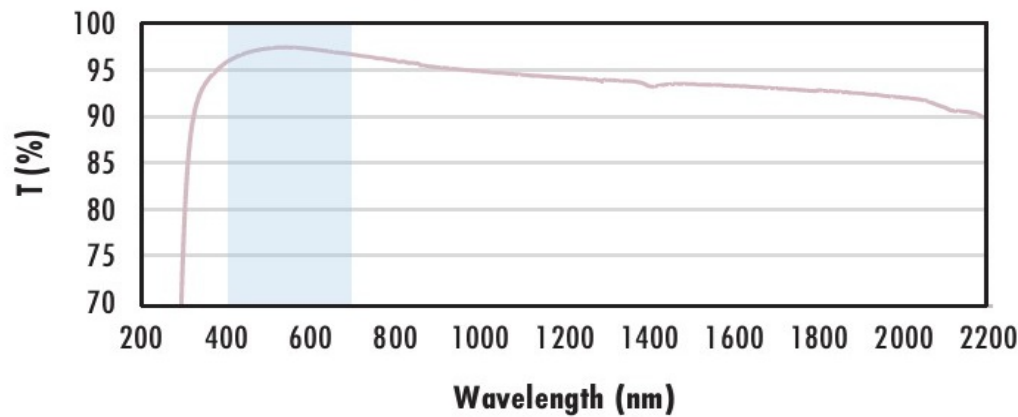
### Uncoated N-BK7 Typical Transmission



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

[Click Here to Download Data](#)

### N-BK7 with MgF<sub>2</sub> Coating Typical Transmission



Typical transmission of a 3mm thick N-BK7 window with MgF<sub>2</sub> (400-700nm) coating at 0° AOI.

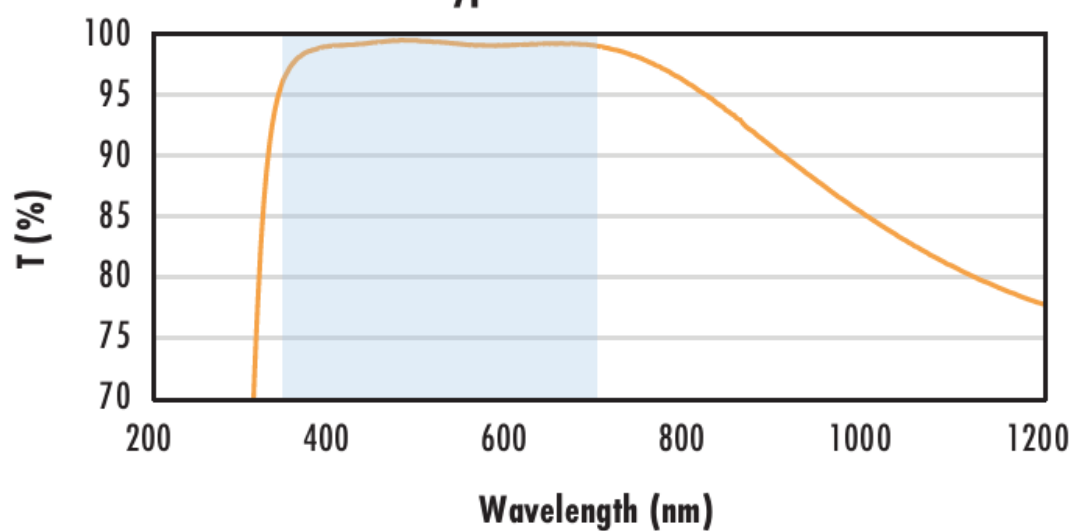
The blue shaded region indicates the coating design wavelength range, with the following specification:

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

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

[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.

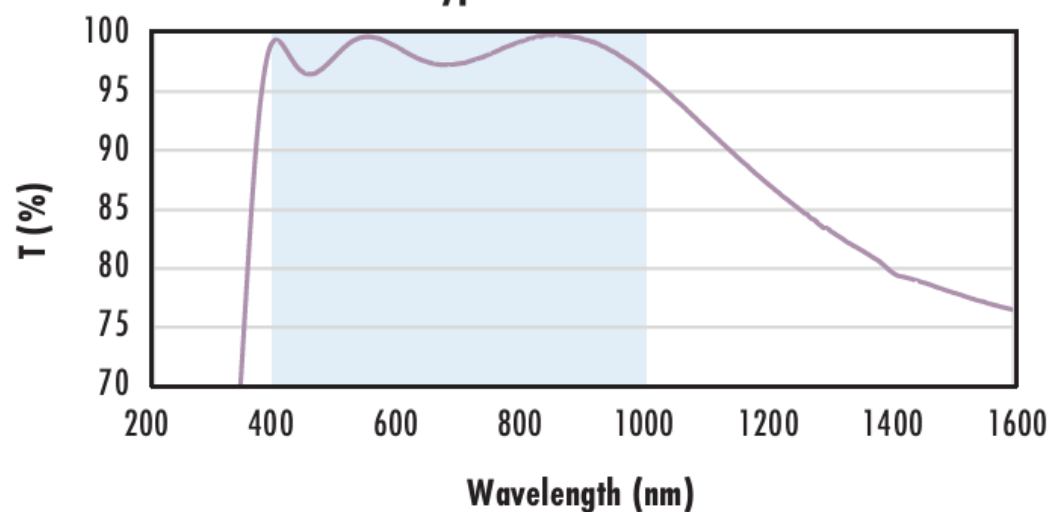
The blue shaded region indicates the coating design wavelength range, with the following specification:

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

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

[Click Here to Download Data](#)

### 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:

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

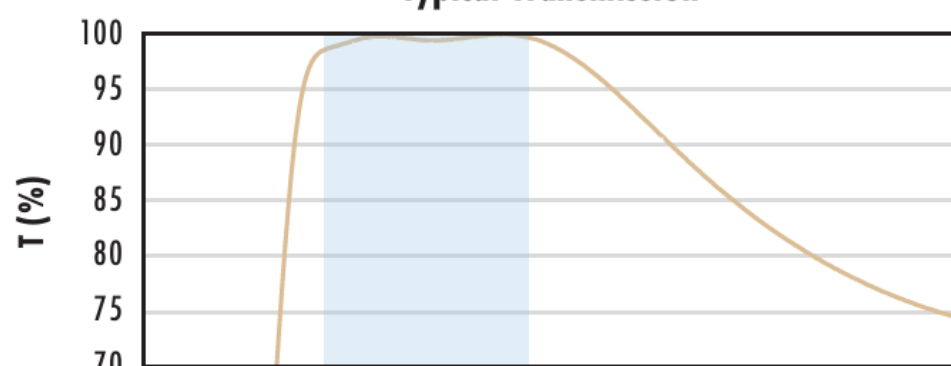
$R_{avg} \leq 1.25\% @ 400 - 870\text{nm}$

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

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

[Click Here to Download Data](#)

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



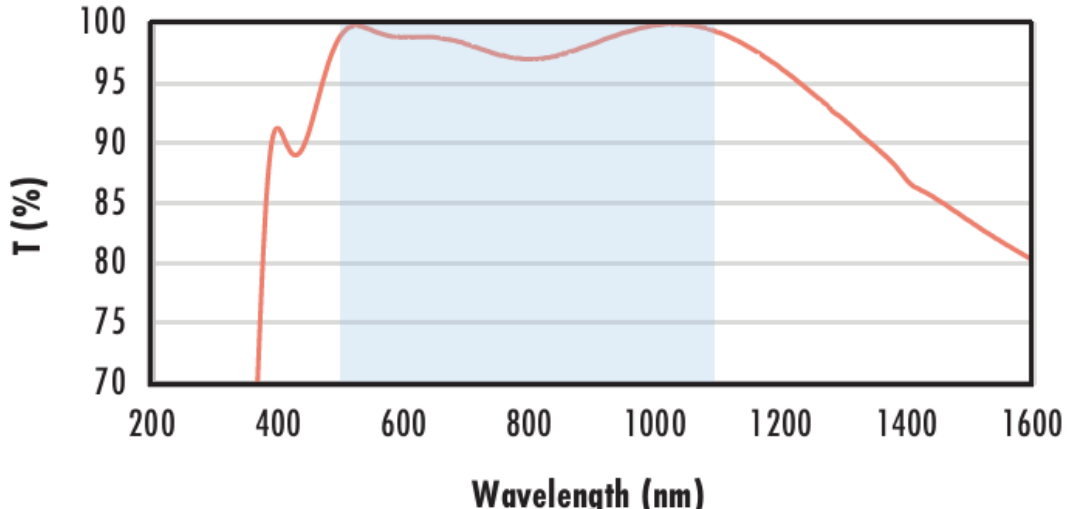
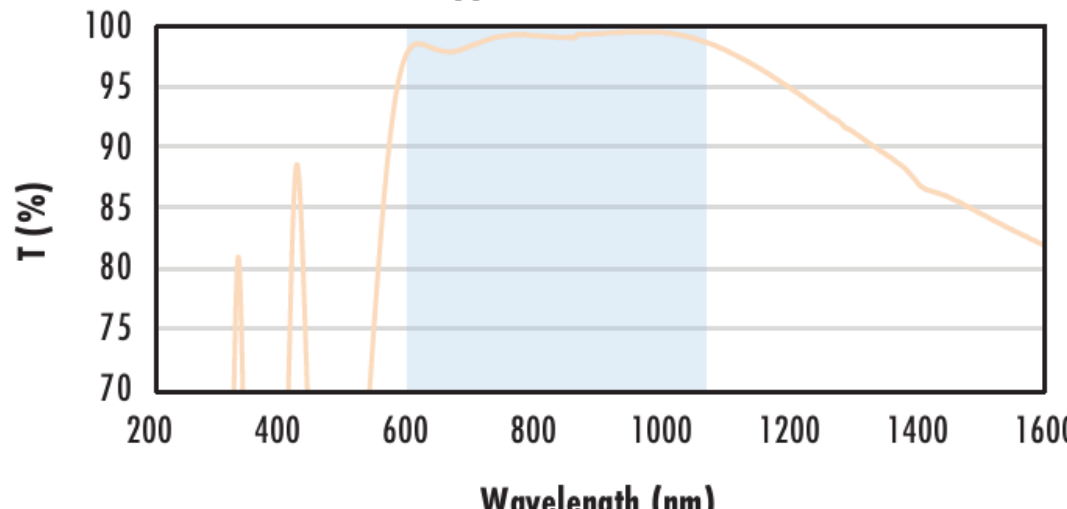
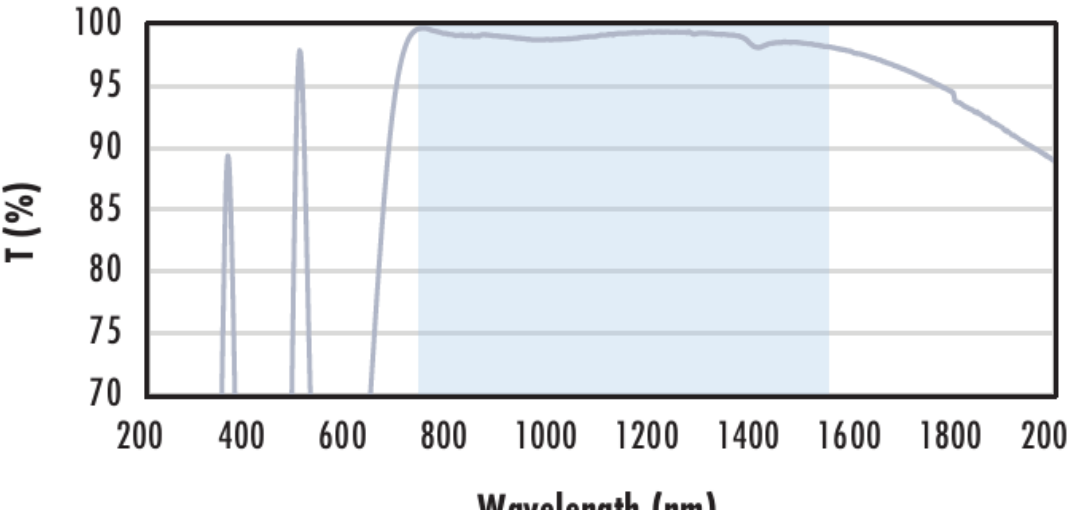
Typical transmission of a 3mm thick N-BK7 window with VIS 0° (425-675nm) coating at 0° AOI.

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

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

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

[Click Here to Download Data](#)

<p style="text-align: center;">200      400      600      800      1000      1200</p> <p style="text-align: center;"><b>Wavelength (nm)</b></p> <p style="text-align: center;"><b>N-BK7 with YAG-BBAR Coating Typical Transmission</b></p>  <p style="text-align: center;">200      400      600      800      1000      1200      1400      1600</p> <p style="text-align: center;"><b>Wavelength (nm)</b></p>	<p>Typical transmission of a 3mm thick N-BK7 window with YAG-BBAR (500-1100nm) coating at 0° AOI.</p> <p>The blue shaded region indicates the coating design wavelength range, with the following specification:</p> <p style="text-align: center;"><math>R_{abs} \leq 0.25\% @ 532\text{nm}</math>  <math>R_{abs} \leq 0.25\% @ 1064\text{nm}</math>  <math>R_{avg} \leq 1.0\% @ 500 - 1100\text{nm}</math></p> <p>Data outside this range is not guaranteed and is for reference only.</p> <p style="text-align: center;"><a href="#">Click Here to Download Data</a></p>
<p style="text-align: center;">200      400      600      800      1000      1200      1400      1600</p> <p style="text-align: center;"><b>Wavelength (nm)</b></p> <p style="text-align: center;"><b>N-BK7 with NIR I Coating Typical Transmission</b></p>  <p style="text-align: center;">200      400      600      800      1000      1200      1400      1600</p> <p style="text-align: center;"><b>Wavelength (nm)</b></p>	<p>Typical transmission of a 3mm thick N-BK7 window with NIR I (600 - 1050nm) coating at 0° AOI.</p> <p>The blue shaded region indicates the coating design wavelength range, with the following specification:</p> <p style="text-align: center;"><math>R_{avg} \leq 0.5\% @ 600 - 1050\text{nm}</math></p> <p>Data outside this range is not guaranteed and is for reference only.</p> <p style="text-align: center;"><a href="#">Click Here to Download Data</a></p>
<p style="text-align: center;">200      400      600      800      1000      1200      1400      1600      1800      2000</p> <p style="text-align: center;"><b>Wavelength (nm)</b></p> <p style="text-align: center;"><b>N-BK7 with NIR II Coating Typical Transmission</b></p>  <p style="text-align: center;">200      400      600      800      1000      1200      1400      1600      1800      2000</p> <p style="text-align: center;"><b>Wavelength (nm)</b></p>	<p>Typical transmission of a 3mm thick N-BK7 window with NIR II (750 - 1550nm) coating at 0° AOI.</p> <p>The blue shaded region indicates the coating design wavelength range, with the following specification:</p> <p style="text-align: center;"><math>R_{abs} \leq 1.5\% @ 750 - 800\text{nm}</math>  <math>R_{abs} \leq 1.0\% @ 800 - 1550\text{nm}</math>  <math>R_{avg} \leq 0.7\% @ 750 - 1550\text{nm}</math></p> <p>Data outside this range is not guaranteed and is for reference only.</p> <p style="text-align: center;"><a href="#">Click Here to Download Data</a></p>

## Coating Curves

### Custom

Edmund Optics offers comprehensive custom manufacturing services for optical and imaging components tailored to your specific application requirements. Whether in the prototyping phase or preparing for full-scale production, we provide flexible solutions to meet your needs. Our experienced engineers are here to assist—from concept to completion.

Our capabilities include:

- Custom dimensions, materials, coatings, and more
- High-precision surface quality and flatness
- Tight tolerances and complex geometries
- Scalable production—from prototype to volume

Learn more about our [custom manufacturing capabilities](#) or submit an inquiry [here](#).

## Compatible Mounts

