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**TECHSPEC® 100mm Dia., 6mm Thick, NIR I Coated  $\lambda/4$  N-BK7 Window**



Stock **#17-295** **3 In Stock**

- 1 + €590.<sup>00</sup>

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Volume Pricing	
Qty 1-5	€590,00 each
Qty 6-25	€471,00 each
Qty 26-49	€442,00 each
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! Prices shown are exclusive of VAT/local taxes

Product Downloads

404.00

#Sorting:

**General**

Protective Window

Type:

Surface Flatness is specified per inch

Note:

## Physical & Mechanical Properties

100.00 +0.0/-0.25 **Diameter (mm):**

6.00 ±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/mm<sup>2</sup>):**

## Optical Properties

NIR I (600-1050nm) **Coating:**

[N-BK7](#) **Substrate:**

1.516 **Index of Refraction (n<sub>d</sub>):**

60-40 **Surface Quality:**

64.17 **Abbe Number (v<sub>d</sub>):**

R<sub>avg</sub> ≤0.5% @ 600 - 1050nm **Coating Specification:**

600 - 1050 **Wavelength Range (nm):**

λ/4 **Surface Flatness (P-V):**

7 J/cm<sup>2</sup> @ 1064nm, 10ns **Damage Threshold, By Design:**

## Material Properties

2.51 **Density (g/cm<sup>3</sup>):**

7.1 (-30 to +70°C)  
8.3 (+20 to +300°C) **Coefficient of Thermal Expansion CTE (10<sup>-6</sup>/°C):**

## Regulatory Compliance

[Compliant](#) **RoHS 2015:**

[View](#) **Certificate of Conformance:**

[Compliant](#) **Reach 235:**

## Product Details

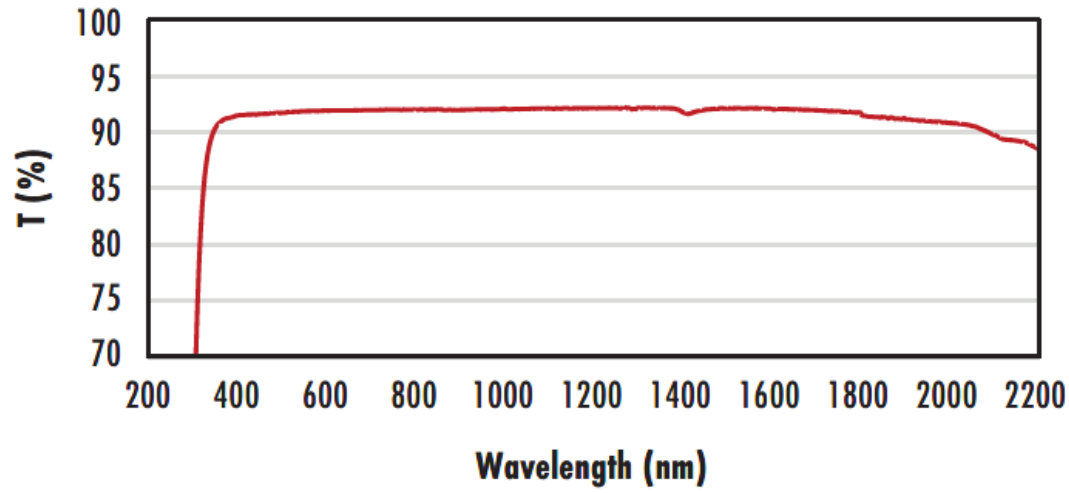
- Circular and Rectangular Sizes from 2mm to 200mm
- 8 Broadband Anti-Reflection Coating Options Available
- World's Largest Selection of Standard N-BK7 Windows
- Also Available with [Ultra-Thin N-BK7 Windows](#)

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

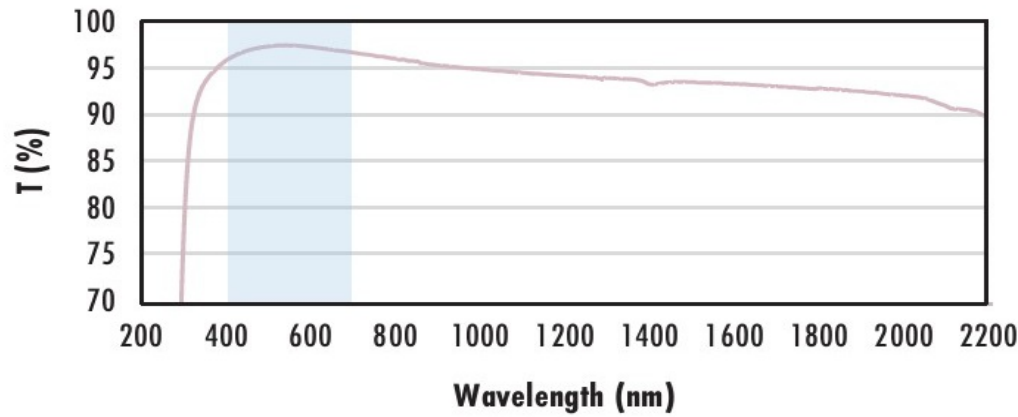
### Uncoated N-BK7 Typical Transmission



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.

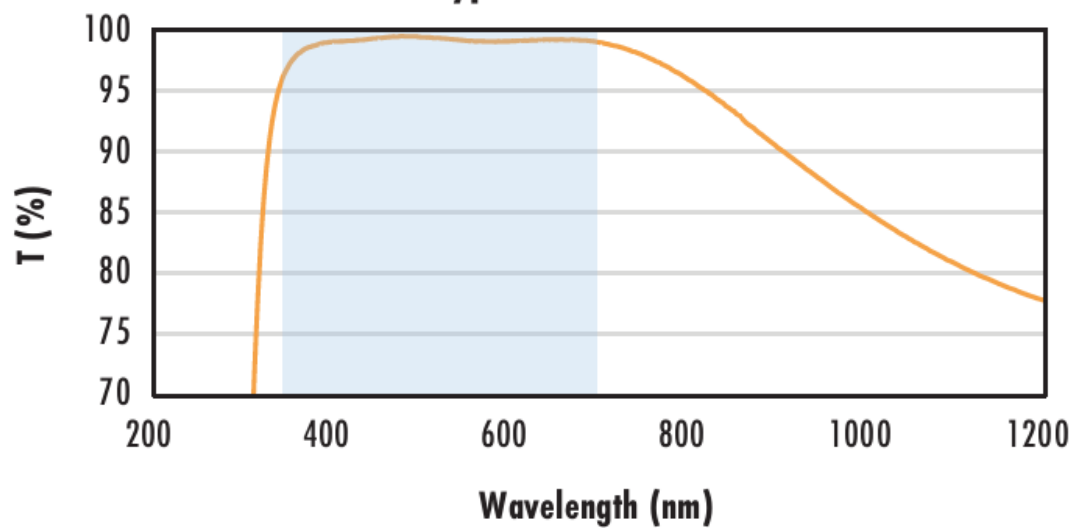
The blue shaded region indicates the coating design wavelength range, with the following specification:

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

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.

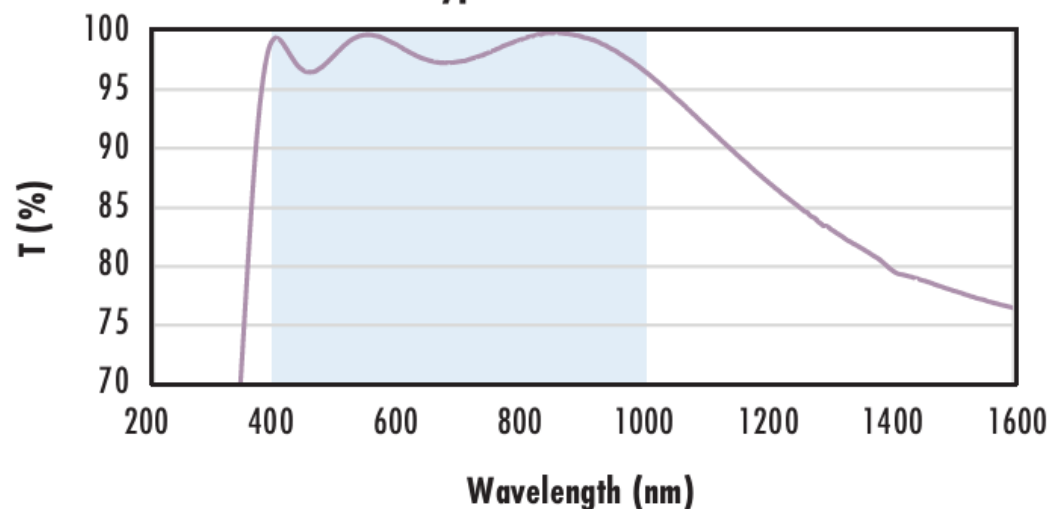
The blue shaded region indicates the coating design wavelength range, with the following specification:

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

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:

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

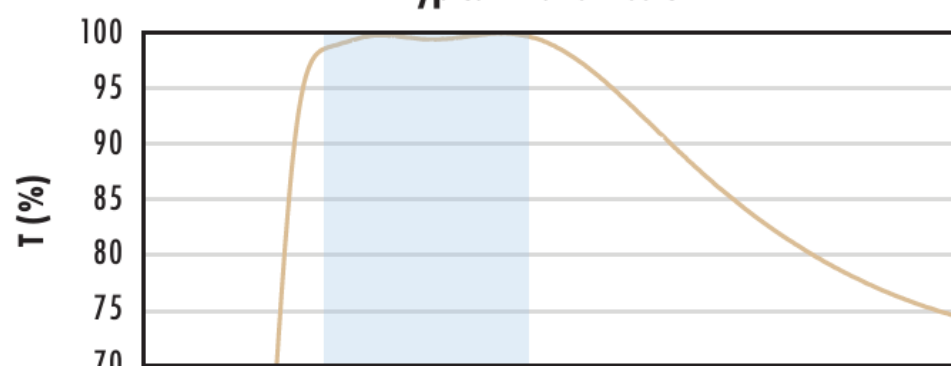
$$R_{avg} \leq 1.25\% @ 400 - 870\text{nm}$$

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

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

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



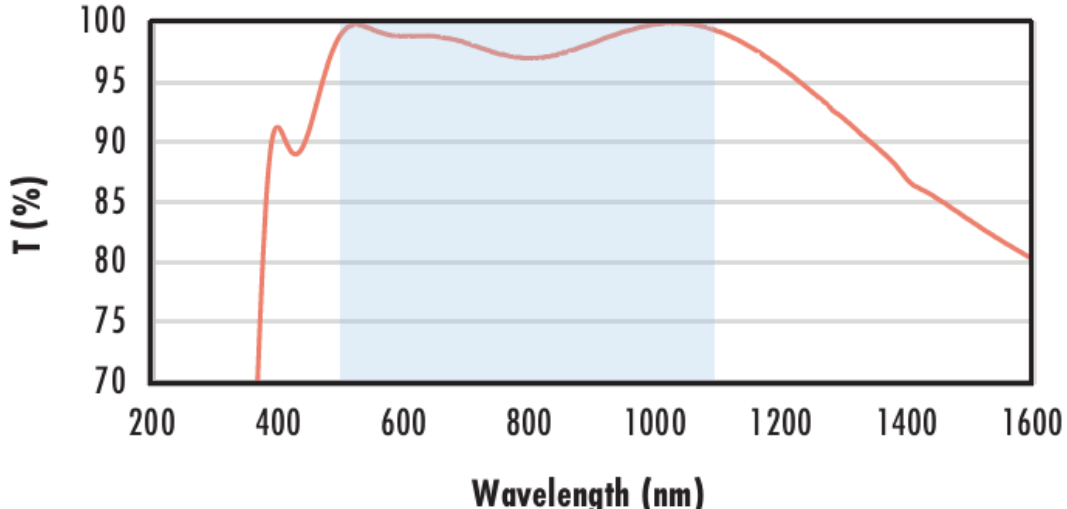
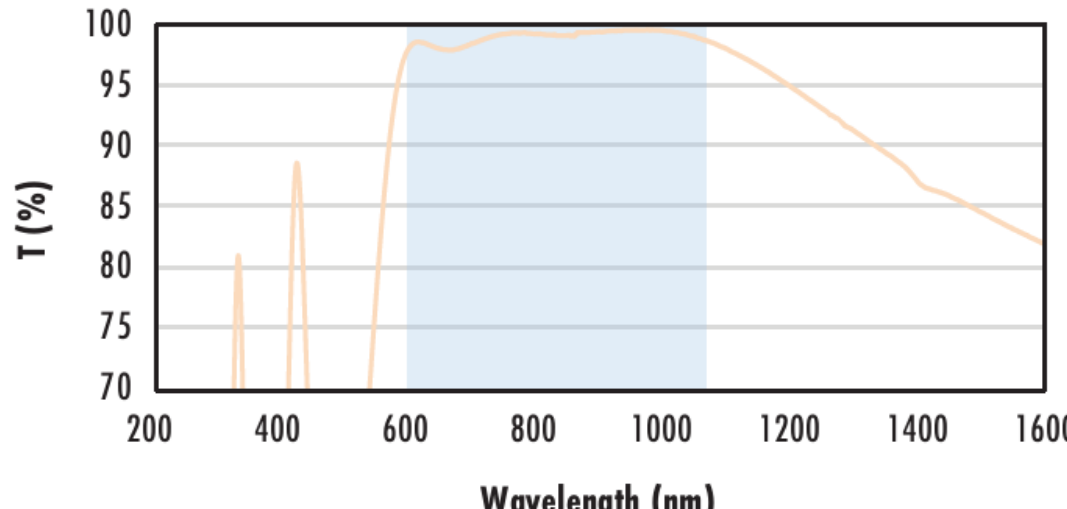
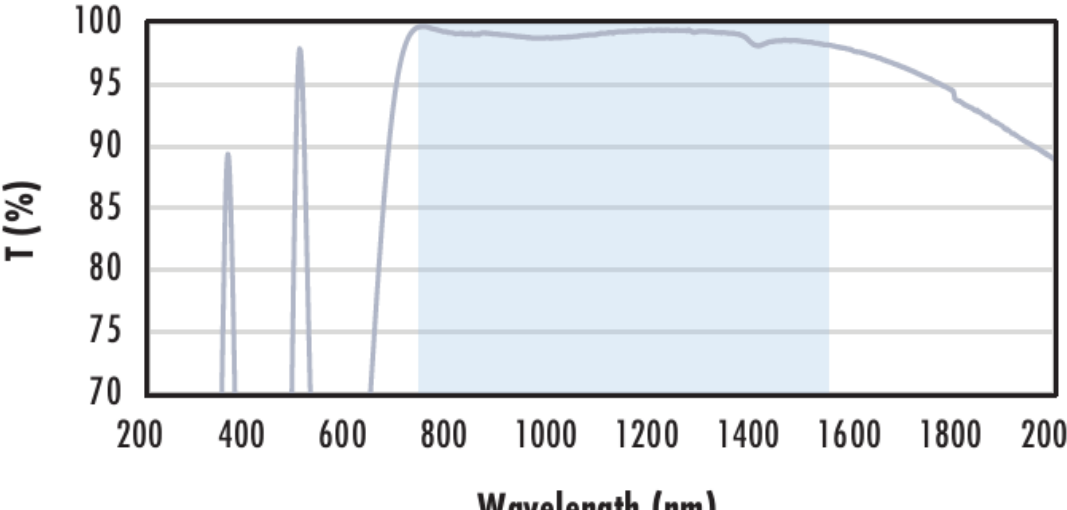
Typical transmission of a 3mm thick N-BK7 window with VIS 0° (425-675nm) coating at 0° AOI.

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>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>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>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>

## 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