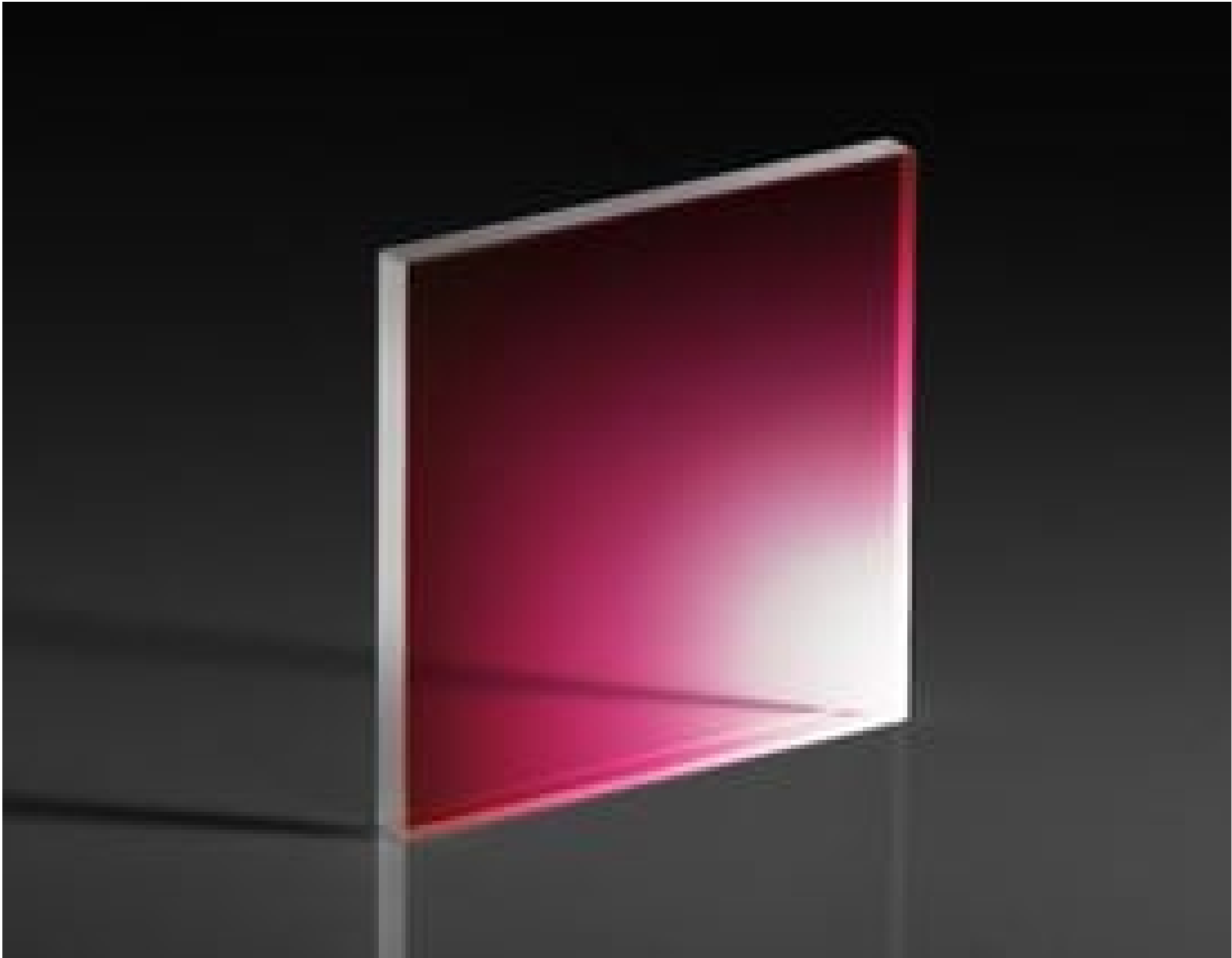


TECHSPEC® 50mm Sq., 1mm Thick, VIS-EXT Coated λ/4 N-BK7 Window



Stock **#23-462** 5 In Stock

-

1

+

A\$244<sup>.80</sup>

ADD TO CART

Volume Pricing	
Qty 1-5	A\$244.80 each
Qty 6-25	A\$195.20 each
Qty 26-49	A\$182.40 each
Need More?	<a href="#">Request Quote</a>

Product Downloads

SPECIFICATIONS

General

Type:  
Protective Window

Physical & Mechanical Properties

Protective as needed	Bevel:
90	Clear Aperture (%):
45.00 x 45.00	Clear Aperture CA (mm):
50.00 x 50.00 +0.00/-0.25	Dimensions (mm):
1.00 ±0.20	Thickness (mm):
Fine Ground	Edges:
610.00	Knoop Hardness (kg/mm²):
<1	Parallelism (arcmin):
0.21	Poisson's Ratio:
82	Young's Modulus (GPa):
50.00	Length (mm):
50.00	Width (mm):

Optical Properties

64.17	Abbe Number (v <sub>d</sub> ):
VS-EXT (350-700nm)	Coating:
R <sub>avg</sub> <0.5% @ 350 - 700nm	Coating Specification:
1.516	Index of Refraction (n <sub>d</sub> ):
N-BK7	Substrate:
60-40	Surface Quality:
λ/4 (per 25mm Dia.)	Transmitted Wavefront, P-V:
350 - 700	Wavelength Range (nm):

Damage Threshold, By Design: ☐  
5 J/cm² @ 532nm, 10ns

Material Properties

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

Regulatory Compliance

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

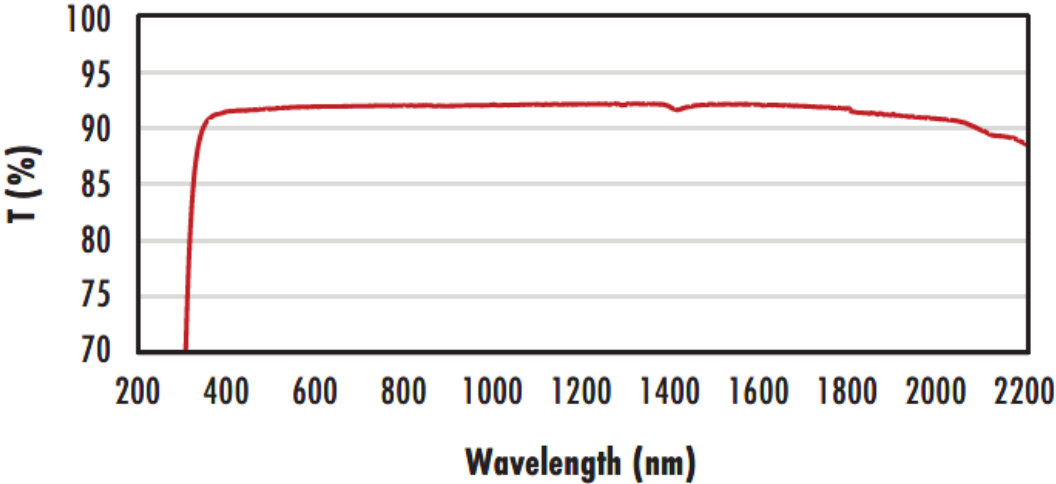
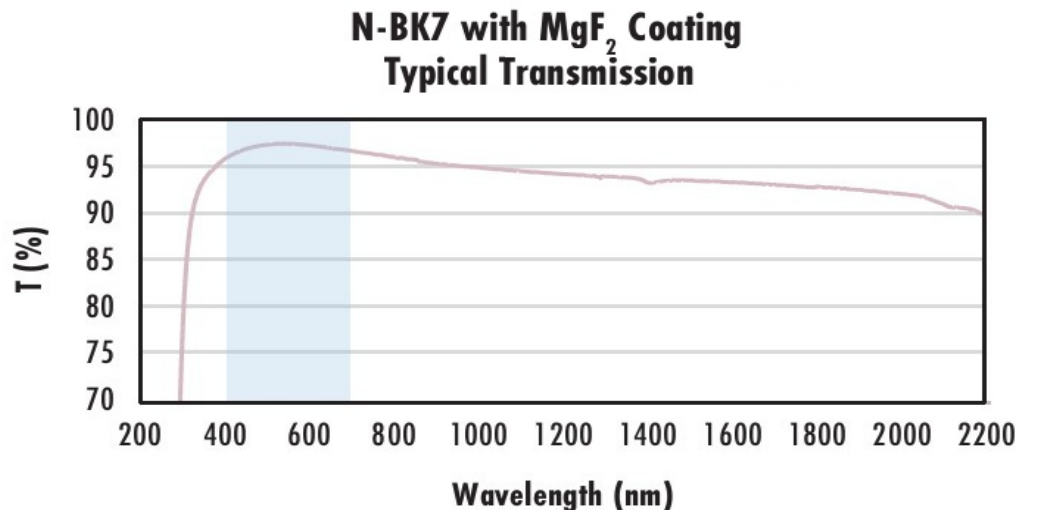
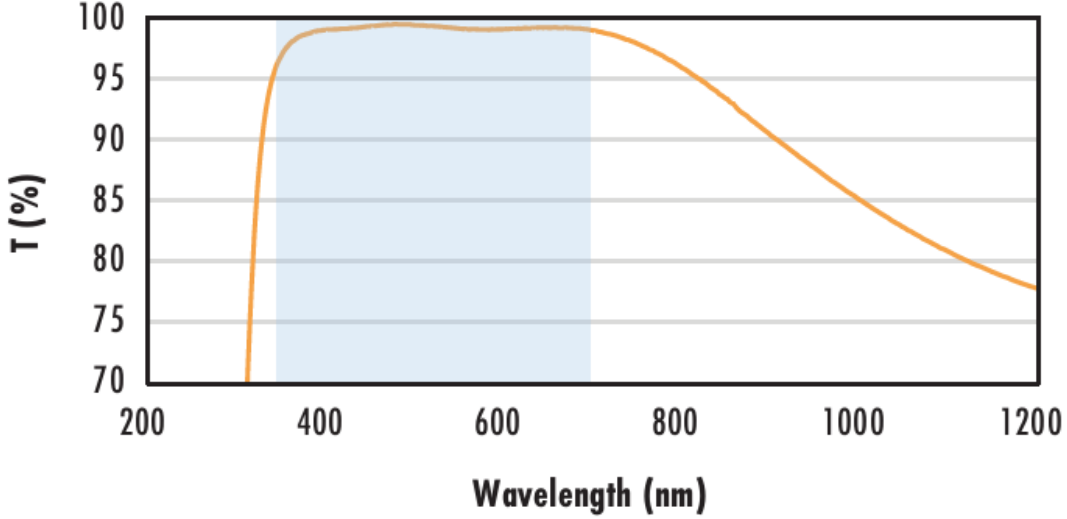
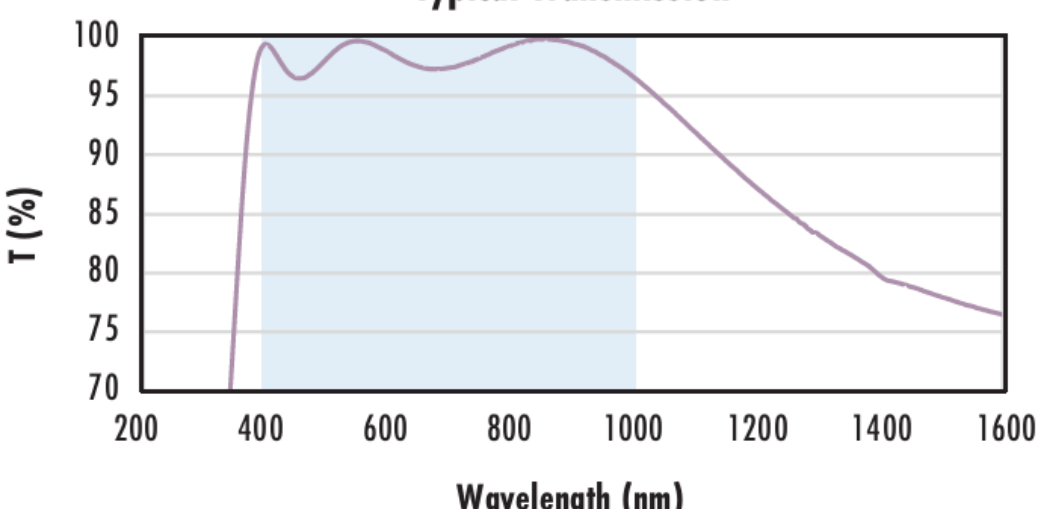
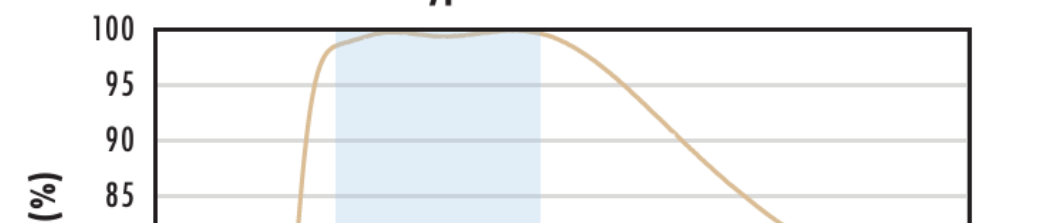
PRODUCT DETAILS

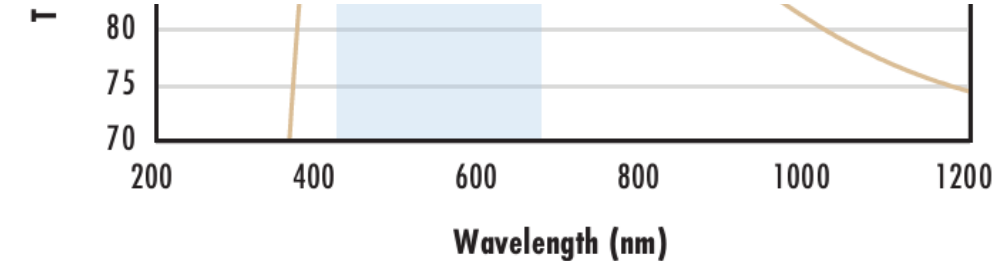
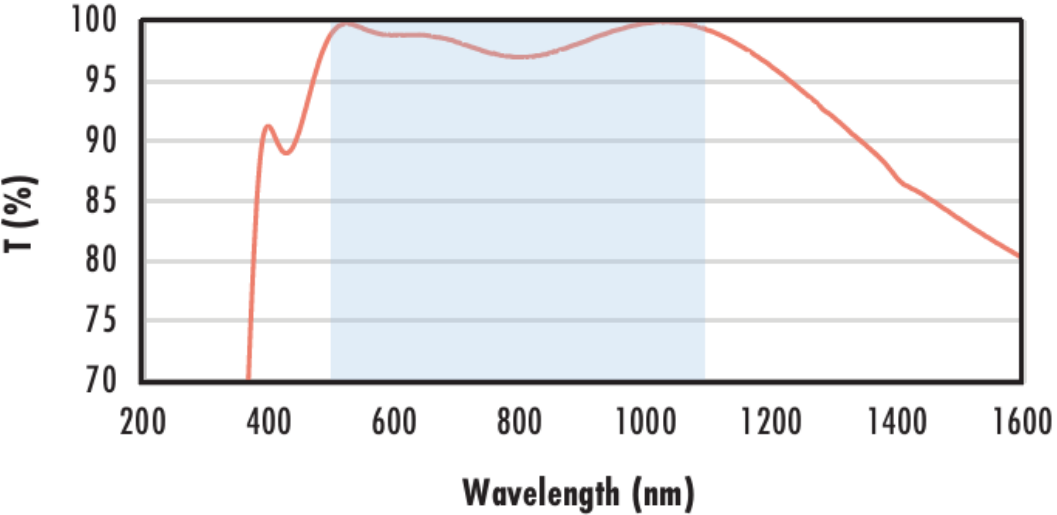
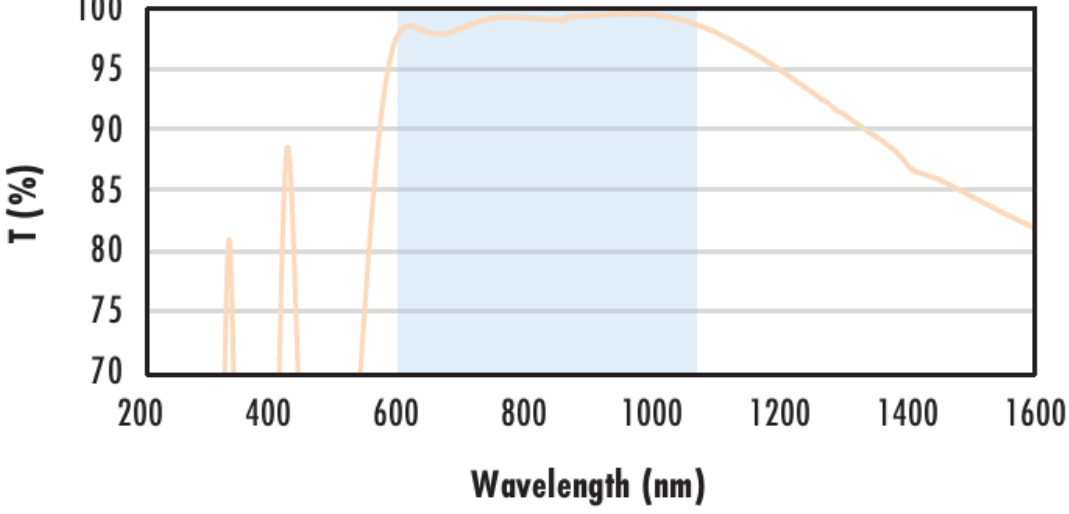
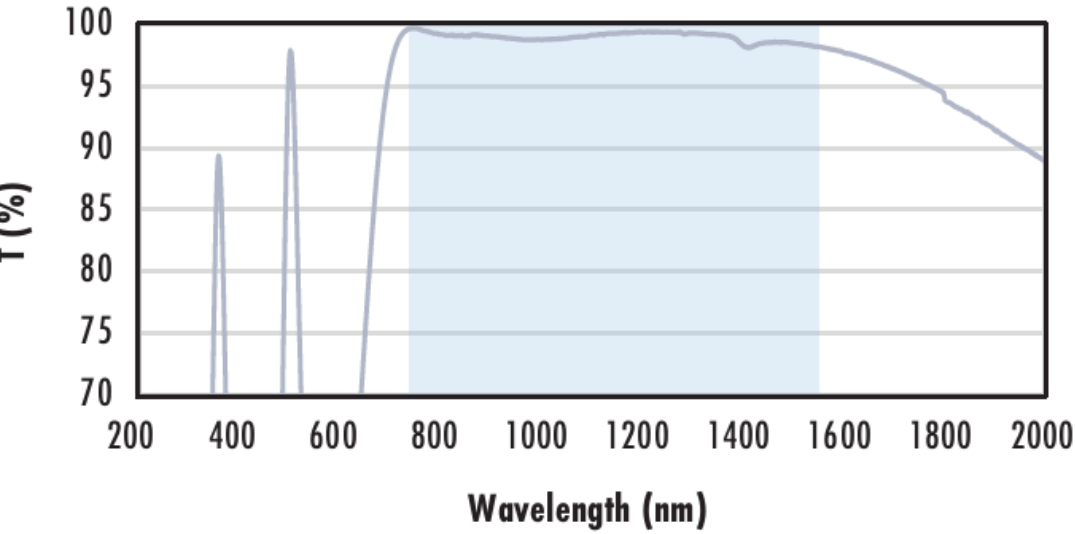
- Circular and Rectangular Sizes from 2mm to 200mm
- 8 Broadband Anti-Reflection Coating Options Available
- World's Largest Selection of Standard N-BK7 Windows
- Also Available with [Ultra-Thin N-BK7 Windows](#)

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	
<p><b>Uncoated N-BK7 Typical Transmission</b></p> 	<p>Typical transmission of a 3mm thick, uncoated N-BK7 window across the UV - NIR spectra.</p> <p><a href="#">Click Here to Download Data</a></p>
<p><b>N-BK7 with MgF<sub>2</sub> Coating Typical Transmission</b></p> 	<p>Typical transmission of a 3mm thick N-BK7 window with MgF<sub>2</sub> (400-700nm) coating at 0° AOI.</p> <p>The blue shaded region indicates the coating design wavelength range, with the following specification:</p> <p><math>R_{avg} \leq 1.75\% @ 400 - 700\text{nm}</math> (N-BK7)</p> <p>Data outside this range is not guaranteed and is for reference only.</p> <p><a href="#">Click Here to Download Data</a></p>
<p><b>N-BK7 with VIS-EXT Coating Typical Transmission</b></p> 	<p>Typical transmission of a 3mm thick N-BK7 window with VIS-EXT (350-700nm) coating at 0° AOI.</p> <p>The blue shaded region indicates the coating design wavelength range, with the following specification:</p> <p><math>R_{avg} \leq 0.5\% @ 350 - 700\text{nm}</math></p> <p>Data outside this range is not guaranteed and is for reference only.</p> <p><a href="#">Click Here to Download Data</a></p>
<p><b>N-BK7 with VIS-NIR Coating Typical Transmission</b></p> 	<p>Typical transmission of a 3mm thick N-BK7 window with VIS-NIR (400-1000nm) coating at 0° AOI.</p> <p>The blue shaded region indicates the coating design wavelength range, with the following specification:</p> <p> <math>R_{abs} \leq 0.25\% @ 880\text{nm}</math>  <math>R_{avg} \leq 1.25\% @ 400 - 870\text{nm}</math>  <math>R_{avg} \leq 1.25\% @ 890 - 1000\text{nm}</math> </p> <p>Data outside this range is not guaranteed and is for reference only.</p> <p><a href="#">Click Here to Download Data</a></p>
<p><b>N-BK7 with VIS 0° Coating Typical Transmission</b></p> 	<p>Typical transmission of a 3mm thick N-BK7 window with VIS 0° (425-675nm) coating at 0° AOI.</p> <p>The blue shaded region indicates the coating design wavelength range, with the following specification:</p> <p><math>R_{avg} \leq 0.4\% @ 425 - 675\text{nm}</math></p>

	<p>Data outside this range is not guaranteed and is for reference only.</p> <p><a href="#">Click Here to Download Data</a></p>
<p><b>N-BK7 with YAG-BBAR Coating</b> <b>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><math>R_{abs} \leq 0.25\% @ 532nm</math> <math>R_{abs} \leq 0.25\% @ 1064nm</math> <math>R_{avg} \leq 1.0\% @ 500 - 1100nm</math></p> <p>Data outside this range is not guaranteed and is for reference only.</p> <p><a href="#">Click Here to Download Data</a></p>
<p><b>N-BK7 with NIR I Coating</b> <b>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><math>R_{avg} \leq 0.5\% @ 600 - 1050nm</math></p> <p>Data outside this range is not guaranteed and is for reference only.</p> <p><a href="#">Click Here to Download Data</a></p>
<p><b>N-BK7 with NIR II Coating</b> <b>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><math>R_{abs} \leq 1.5\% @ 750 - 800nm</math> <math>R_{abs} \leq 1.0\% @ 800 - 1550nm</math> <math>R_{avg} \leq 0.7\% @ 750 - 1550nm</math></p> <p>Data outside this range is not guaranteed and is for reference only.</p> <p><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](#).