

TECHSPEC® 15mm Dia., 3mm Thick, VIS-NIR Coated λ/4 N-BK7 Window



Stock **#45-659** [CONTACT US](#)

-

1

+

£82^{.40}

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Volume Pricing	
Qty 1-5	£82.40 each
Qty 6-25	£66.40 each
Qty 26-49	£61.60 each
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 Prices shown are exclusive of VAT/local taxes

Product Downloads

SPECIFICATIONS

General

Protective Window

Type:

Physical & Mechanical Properties	
Protective as needed	Bevel:
90	Clear Aperture (%):
13.50	Clear Aperture CA (mm):
15.00 +0.0/-0.25	Diameter (mm):
3.00 ±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):
Optical Properties	
64.17	Abbe Number (v _d):
VS-NIR (400-1000nm)	Coating:
R _{abs} ≤0.25% @ 880nm R _{avg} ≤1.25% @ 400 - 870 nm R _{avg} ≤1.25% @ 890 - 1000nm	Coating Specification:
1.516	Index of Refraction (n _d):
N-BK7	Substrate:
λ/4	Surface Flatness (P-V):
60-40	Surface Quality:
400 - 1000	Wavelength Range (nm):
5 J/cm² @ 532nm, 10ns	Damage Threshold, By Design: <input type="checkbox"/>
Material Properties	
7.1 (-30 to +70°C) 8.3 (+20 to +300°C)	Coefficient of Thermal Expansion CTE (10 ⁻⁶ /°C):
2.51	Density (g/cm³):
Regulatory Compliance	
Compliant	RoHS 2015:
Compliant	Reach 219:
View	Certificate of Conformance:

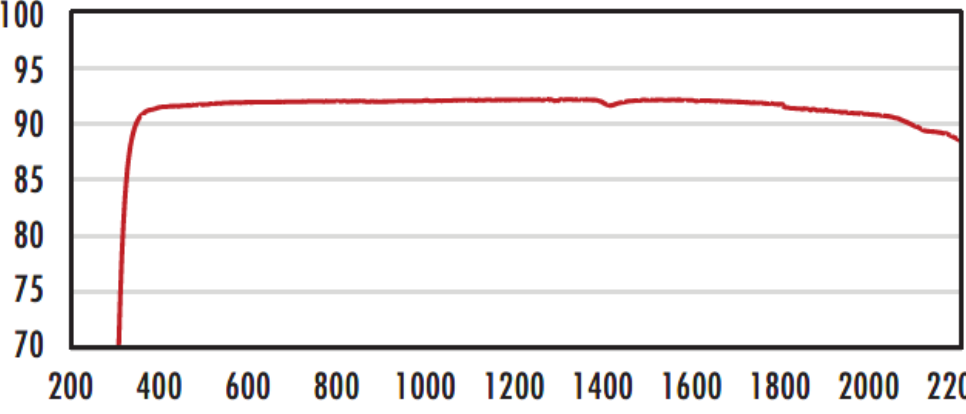
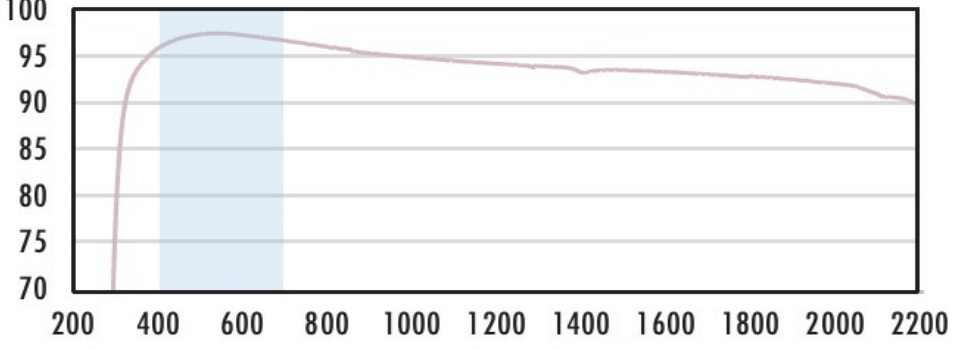
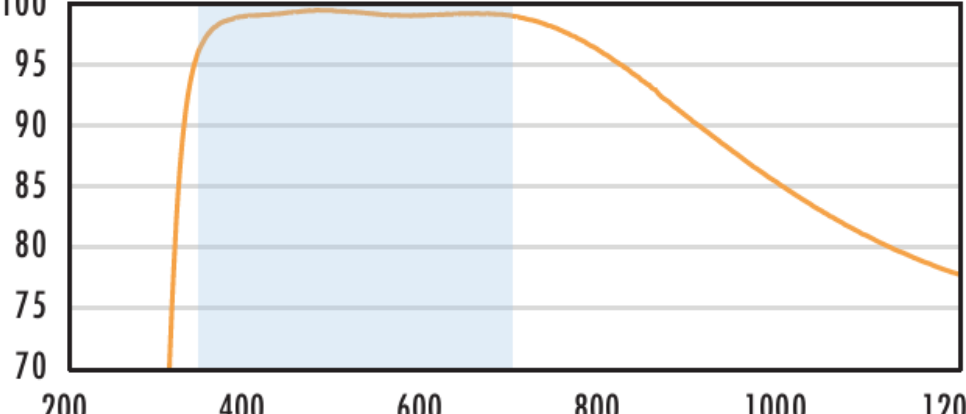
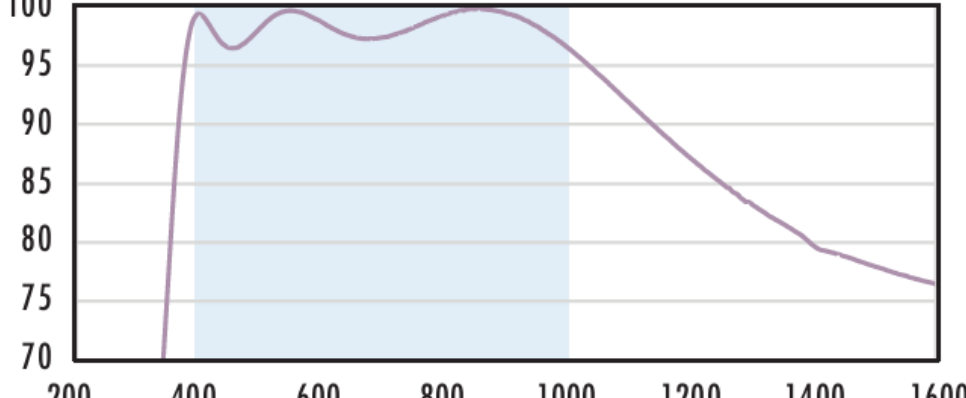
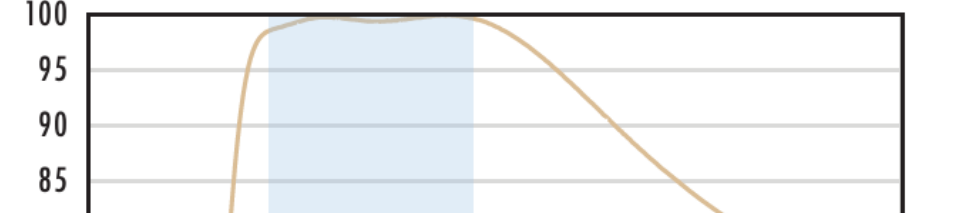
PRODUCT DETAILS

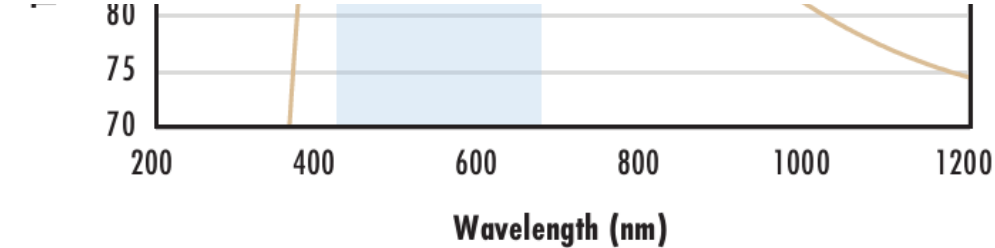
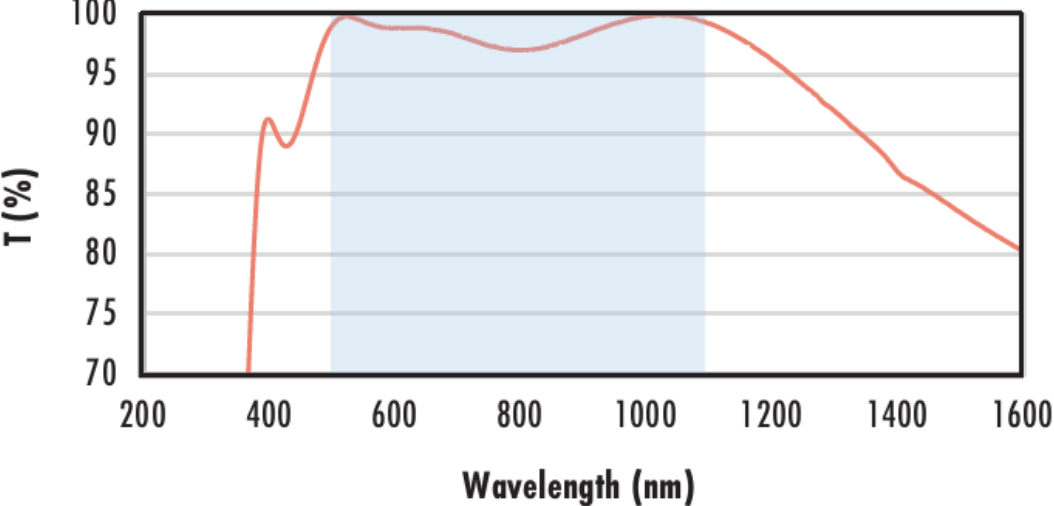
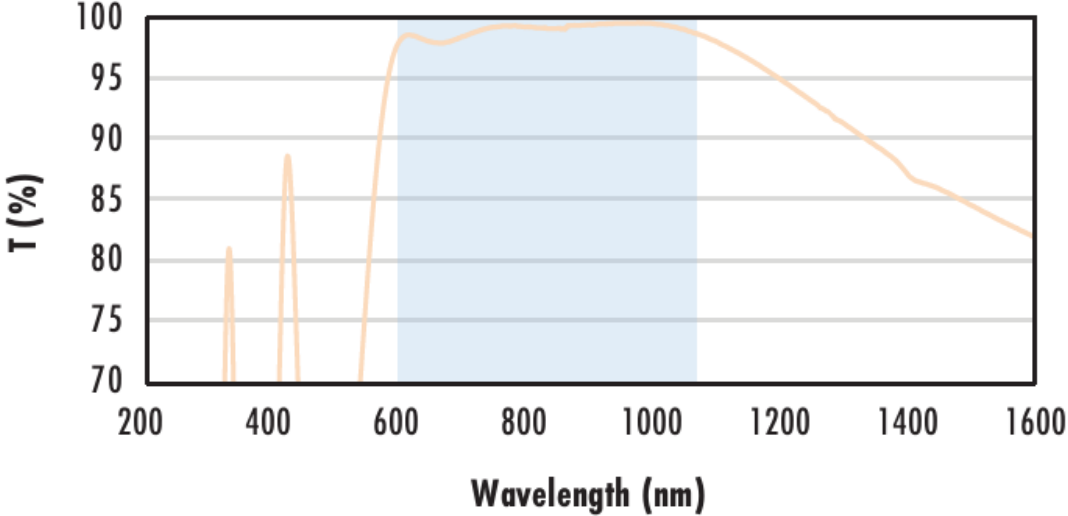
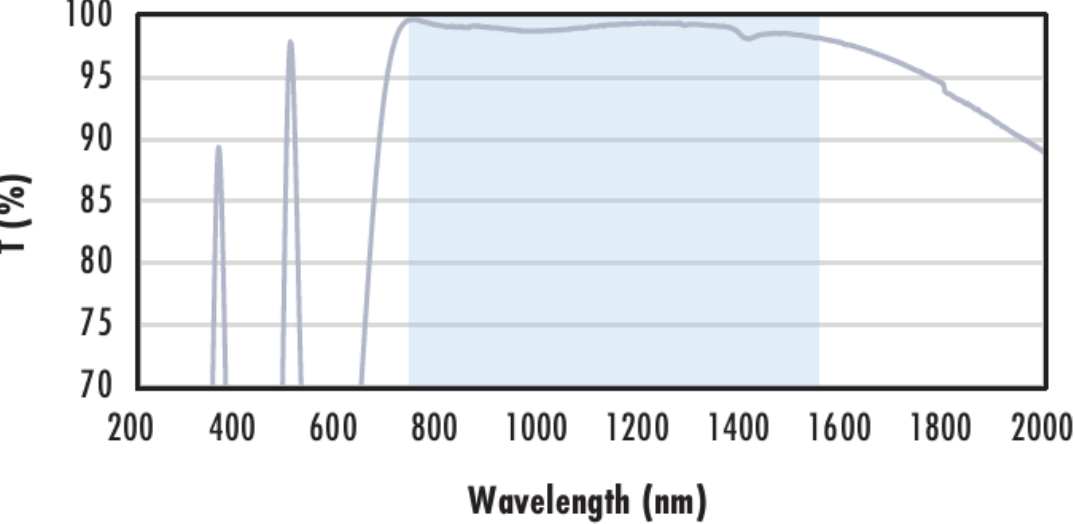
- Circular and Rectangular Sizes from 2mm to 200mm
- 8 Broadband Anti-Reflection Coating Options Available
- World's Largest Selection of Standard N-BK7 Windows
- Also Available with [Ultra-Thin N-BK7 Windows](#)

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	
<div data-bbox="262 201 1249 727"><h3>Uncoated N-BK7 Typical Transmission</h3></div>	<p>Typical transmission of a 3mm thick, uncoated N-BK7 window across the UV - NIR spectra.</p> <p>Click Here to Download Data</p>
<div data-bbox="262 774 1249 1282"><h3>N-BK7 with MgF₂ Coating Typical Transmission</h3></div>	<p>Typical transmission of a 3mm thick N-BK7 window with MgF₂ (400-700nm) coating at 0° AOI.</p> <p>The blue shaded region indicates the coating design wavelength range, with the following specification:</p> <p>$R_{avg} \leq 1.75\% @ 400 - 700\text{nm}$ (N-BK7)</p> <p>Data outside this range is not guaranteed and is for reference only.</p> <p>Click Here to Download Data</p>
<div data-bbox="262 1326 1249 1905"><h3>N-BK7 with VIS-EXT Coating Typical Transmission</h3></div>	<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>$R_{avg} \leq 0.5\% @ 350 - 700\text{nm}$</p> <p>Data outside this range is not guaranteed and is for reference only.</p> <p>Click Here to Download Data</p>
<div data-bbox="262 1967 1249 2528"><h3>N-BK7 with VIS-NIR Coating Typical Transmission</h3></div>	<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>$R_{abs} \leq 0.25\% @ 880\text{nm}$ $R_{avg} \leq 1.25\% @ 400 - 870\text{nm}$ $R_{avg} \leq 1.25\% @ 890 - 1000\text{nm}$</p> <p>Data outside this range is not guaranteed and is for reference only.</p> <p>Click Here to Download Data</p>
<div data-bbox="262 2576 1249 2884"><h3>N-BK7 with VIS 0° Coating Typical Transmission</h3></div>	<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>$R_{avg} \leq 0.4\% @ 425 - 675\text{nm}$</p> <p>Data outside this range is not guaranteed and is for reference only.</p>

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