

TECHSPEC<sup>®</sup> 75mm Dia., 2mm Thick, NIR II Coated  $\lambda$ /4 N-BK7 Window



Stock #25-829 12 In Stock

-

1

+

€239<sup>.00</sup>

ADD TO CART

| Volume Pricing |                               |
|----------------|-------------------------------|
| Qty 1-5        | €239,00 each                  |
| Qty 6-25       | €191,00 each                  |
| Qty 26-49      | €179,00 each                  |
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!

 Prices shown are exclusive of VAT/local taxes

Product Downloads

376.00

#Sorting:

General

Protective Window

Type:

Physical & Mechanical Properties

67.50

Clear Aperture CA (mm):

|                      |                          |
|----------------------|--------------------------|
| 75.00 +0.00/-0.25    | Diameter (mm):           |
| 2.00 ±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/mm²): |

|                                                                                                                        |                                        |
|------------------------------------------------------------------------------------------------------------------------|----------------------------------------|
| Optical Properties                                                                                                     |                                        |
| NIR II (750-1550nm)                                                                                                    | Coating:                               |
| N-BK7                                                                                                                  | Substrate: □                           |
| 1.516                                                                                                                  | Index of Refraction (n <sub>d</sub> ): |
| 60-40                                                                                                                  | Surface Quality:                       |
| λ/4                                                                                                                    | Transmitted Wavefront, P-V:            |
| 64.17                                                                                                                  | Abbe Number (v <sub>d</sub> ):         |
| R <sub>abs</sub> ≤1.5% @ 750 - 800nm<br>R <sub>abs</sub> ≤1.0% @ 800 - 1550nm<br>R <sub>avg</sub> ≤0.7% @ 750 - 1550nm | Coating Specification:                 |
| 750 - 1550                                                                                                             | Wavelength Range (nm):                 |
| 8 J/cm² @ 1064nm, 10ns                                                                                                 | Damage Threshold, By Design:           |

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

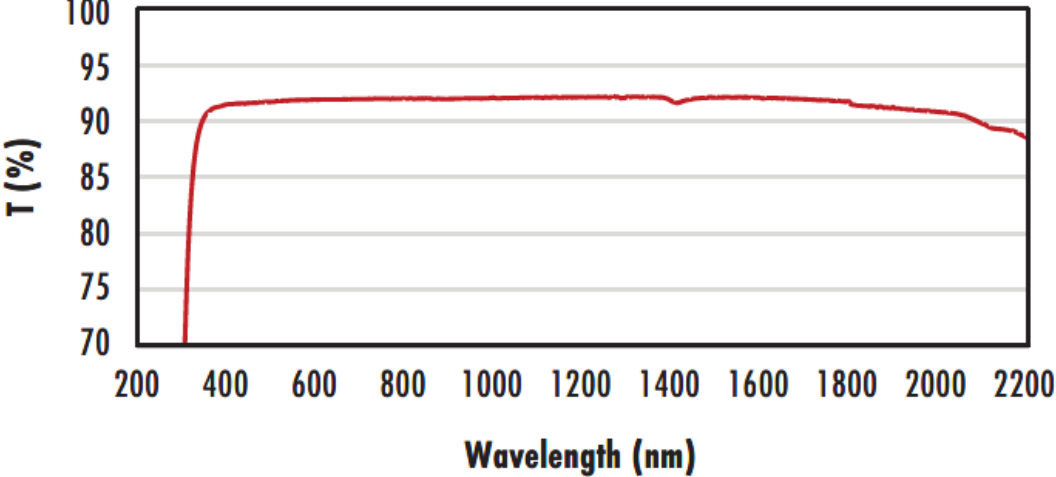
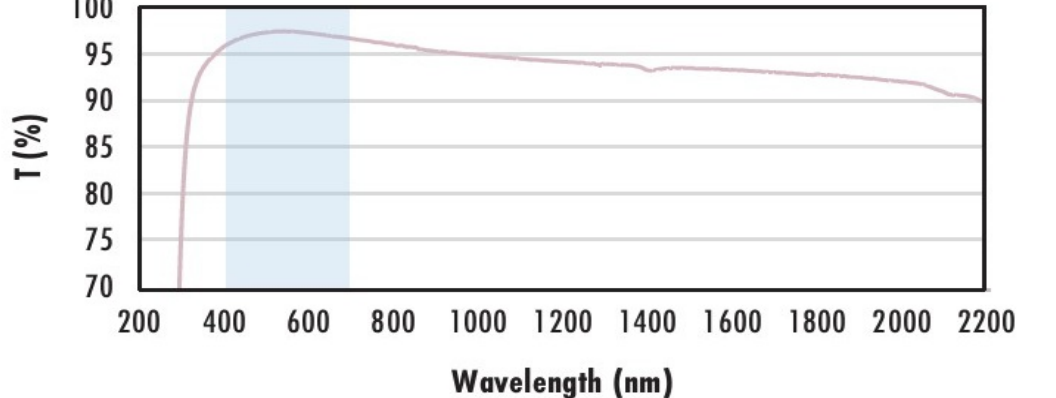
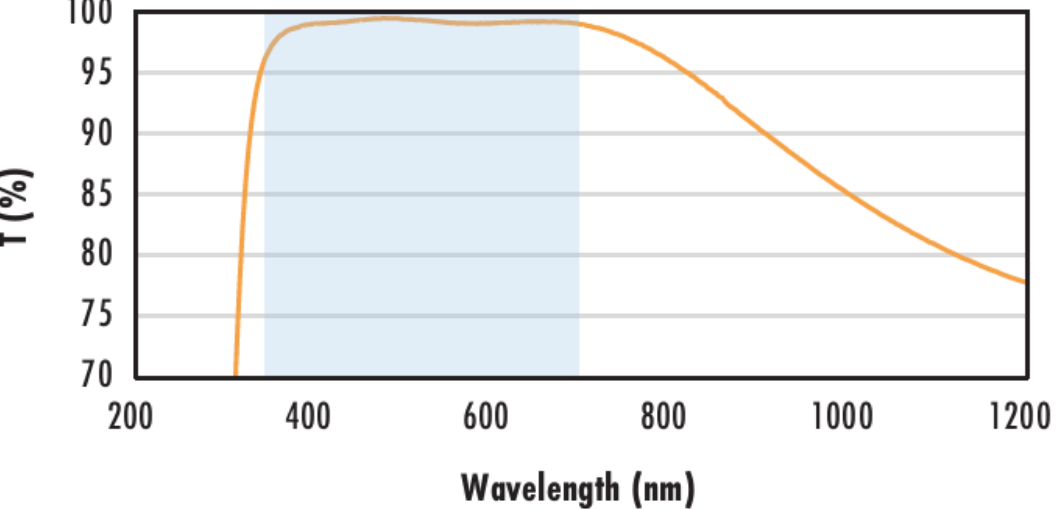
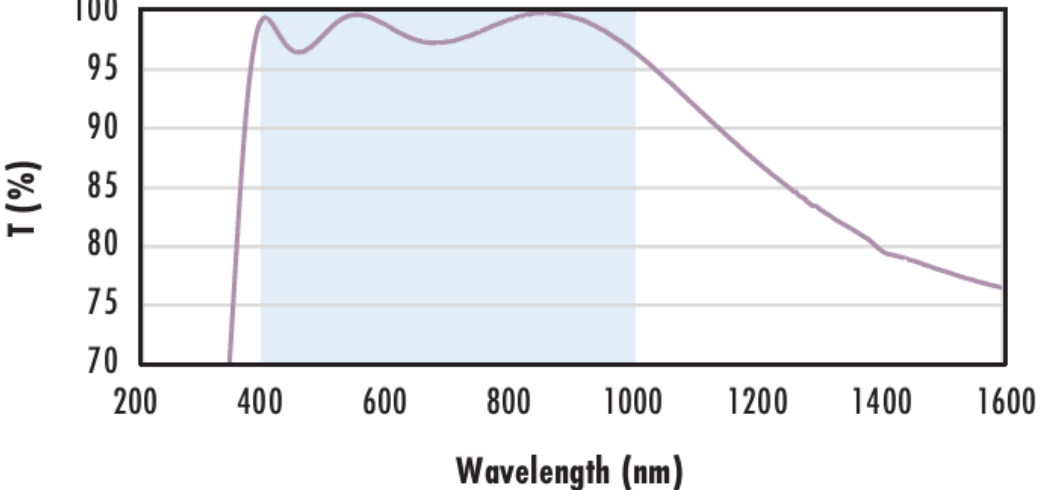
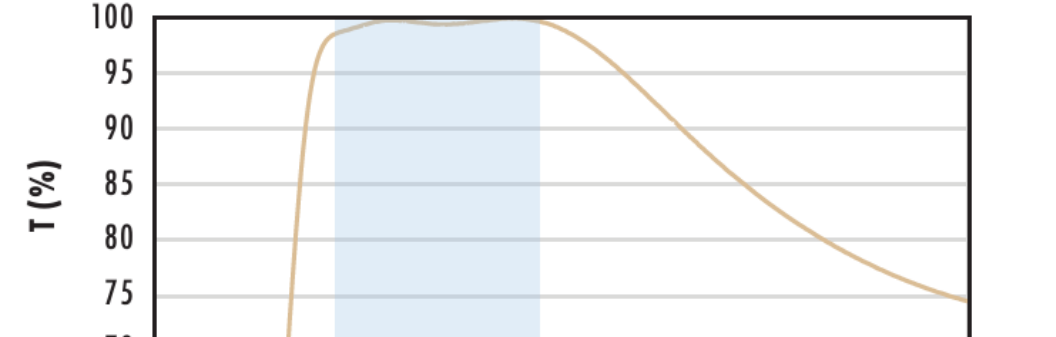
|                       |                             |
|-----------------------|-----------------------------|
| Regulatory Compliance |                             |
| Compliant             | RoHS 2015:                  |
| View                  | Certificate of Conformance: |
| Compliant             | 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

|                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <div data-bbox="262 97 1249 617"><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><a href="#">Click Here to Download Data</a></p>                                                                                                                                                                                                                                                                                                                                                                                                         |
| <div data-bbox="262 691 1249 1166"><h3>N-BK7 with MgF<sub>2</sub> Coating Typical Transmission</h3></div> | <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\% \text{ @ } 400 - 700\text{nm (N-BK7)}</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>                                                                                                                   |
| <div data-bbox="262 1213 1249 1792"><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><math>R_{avg} \leq 0.5\% \text{ @ } 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>                                                                                                                                    |
| <div data-bbox="262 1855 1249 2415"><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><math>R_{abs} \leq 0.25\% \text{ @ } 880\text{nm}</math><br/><math>R_{avg} \leq 1.25\% \text{ @ } 400 - 870\text{nm}</math><br/><math>R_{avg} \leq 1.25\% \text{ @ } 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> |
| <div data-bbox="262 2463 1249 2881"><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><math>R_{avg} \leq 0.4\% \text{ @ } 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>                                                                                                                                     |

|                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |  |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| <div>20040060080010001200</div> <div>Wavelength (nm)</div>                                                                                                                                                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |  |
| <div><div>N-BK7 with YAG-BBAR Coating</div><div>Typical Transmission</div><div><div><div>T (%)</div><div>100959085807570</div></div><div><div>2004006008001000120014001600</div><div>Wavelength (nm)</div></div></div></div>       | <div>Typical transmission of a 3mm thick N-BK7 window with YAG-BBAR (500-1100nm) coating at 0° AOI.</div> <div>The blue shaded region indicates the coating design wavelength range, with the following specification:</div> <div><div><math>R_{abs} \leq 0.25\% @ 532nm</math></div><div><math>R_{abs} \leq 0.25\% @ 1064nm</math></div><div><math>R_{avg} \leq 1.0\% @ 500 - 1100nm</math></div></div> <div>Data outside this range is not guaranteed and is for reference only.</div> <div><a href="#">Click Here to Download Data</a></div>           |  |
| <div><div>N-BK7 with NIR I Coating</div><div>Typical Transmission</div><div><div><div>T (%)</div><div>100959085807570</div></div><div><div>2004006008001000120014001600</div><div>Wavelength (nm)</div></div></div></div>          | <div>Typical transmission of a 3mm thick N-BK7 window with NIR I (600 - 1050nm) coating at 0° AOI.</div> <div>The blue shaded region indicates the coating design wavelength range, with the following specification:</div> <div><div><math>R_{avg} \leq 0.5\% @ 600 - 1050nm</math></div></div> <div>Data outside this range is not guaranteed and is for reference only.</div> <div><a href="#">Click Here to Download Data</a></div>                                                                                                                   |  |
| <div><div>N-BK7 with NIR II Coating</div><div>Typical Transmission</div><div><div><div>T (%)</div><div>100959085807570</div></div><div><div>200400600800100012001400160018002000</div><div>Wavelength (nm)</div></div></div></div> | <div>Typical transmission of a 3mm thick N-BK7 window with NIR II (750 - 1550nm) coating at 0° AOI.</div> <div>The blue shaded region indicates the coating design wavelength range, with the following specification:</div> <div><div><math>R_{abs} \leq 1.5\% @ 750 - 800nm</math></div><div><math>R_{abs} \leq 1.0\% @ 800 - 1550nm</math></div><div><math>R_{avg} \leq 0.7\% @ 750 - 1550nm</math></div></div> <div>Data outside this range is not guaranteed and is for reference only.</div> <div><a href="#">Click Here to Download Data</a></div> |  |

## 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](#).