

TECHSPEC<sup>®</sup> 15mm Dia., 1mm Thick, NIR II Coated λ/4 N-BK7 Window



Stock **#25-796** 5 In Stock

-

1

+

€87<sup>.55</sup>

ADD TO CART

| Volume Pricing |                               |
|----------------|-------------------------------|
| Qty 1-5        | €87,55 each                   |
| Qty 6-25       | €70,04 each                   |
| Qty 26-49      | €65,92 each                   |
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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 +0.00/-0.25                                                                                                                                | Diameter (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):                 |
| Optical Properties                                                                                                                               |                                        |
| 64.17                                                                                                                                            | Abbe Number (v <sub>d</sub> ):         |
| NIR II (750-1550nm)                                                                                                                              | Coating:                               |
| Coating Specification:<br>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 |                                        |
| 1.516                                                                                                                                            | Index of Refraction (n <sub>d</sub> ): |
| N-BK7                                                                                                                                            | Substrate:                             |
| 60-40                                                                                                                                            | Surface Quality:                       |
| λ/4                                                                                                                                              | Transmitted Wavefront, P-V:            |
| 750 - 1550                                                                                                                                       | Wavelength Range (nm):                 |
| Damage Threshold, By Design: <input type="checkbox"/><br>8 J/cm² @ 1064nm, 10ns                                                                  |                                        |
| Material Properties                                                                                                                              |                                        |
| Coefficient of Thermal Expansion CTE (10 <sup>-6</sup> /°C):<br>7.1 (-30 to +70 °C)<br>8.3 (+20 to +300 °C)                                      |                                        |
| 2.51                                                                                                                                             | Density (g/cm³):                       |
| Regulatory Compliance                                                                                                                            |                                        |
| Compliant                                                                                                                                        | RoHS 2015:                             |
| View                                                                                                                                             | Certificate of Conformance:            |
| Compliant                                                                                                                                        | Reach 235:                             |

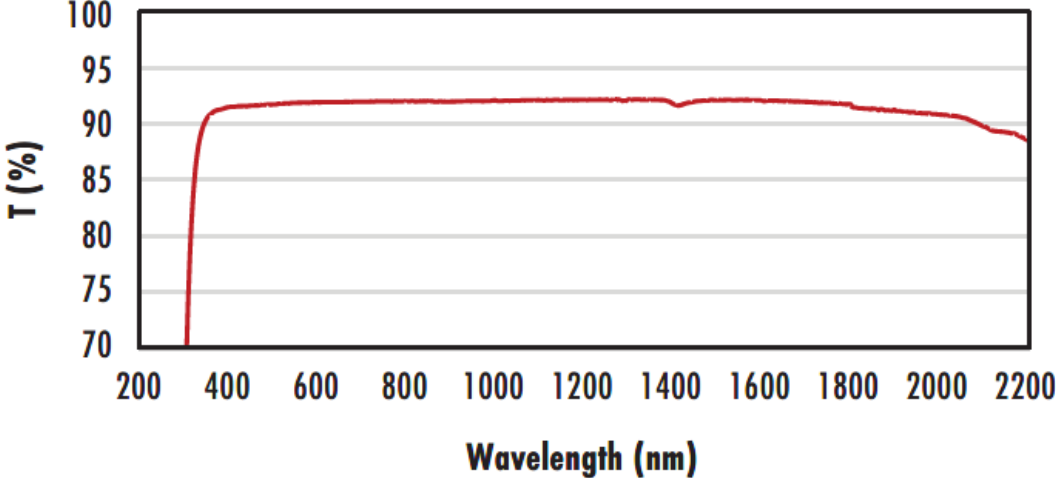
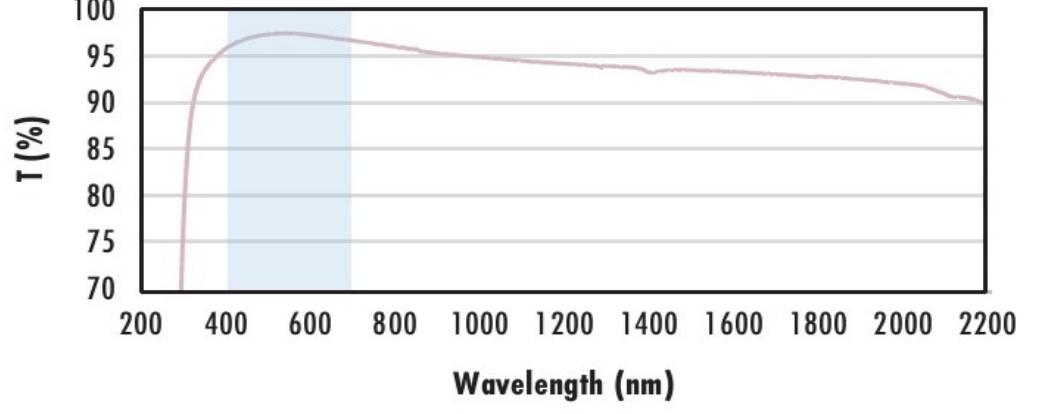
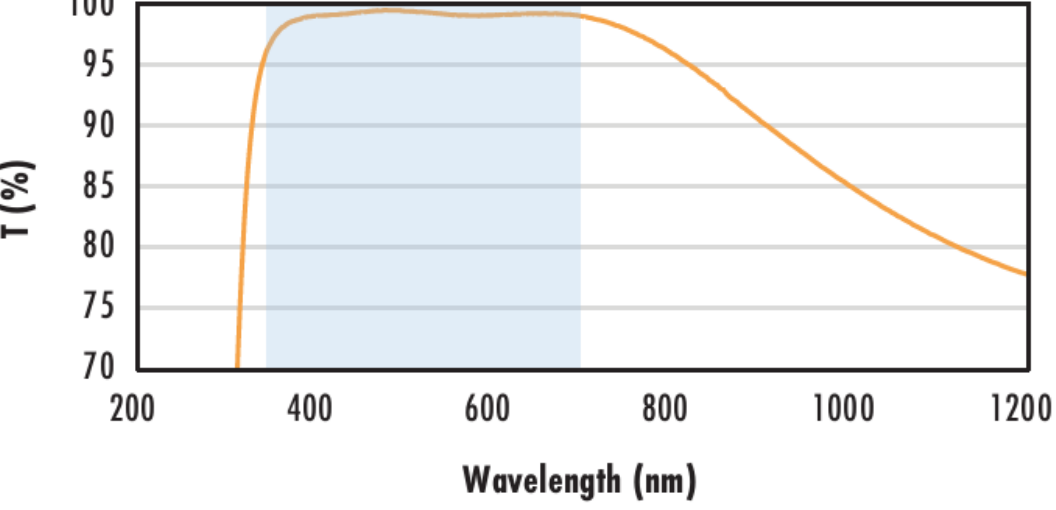
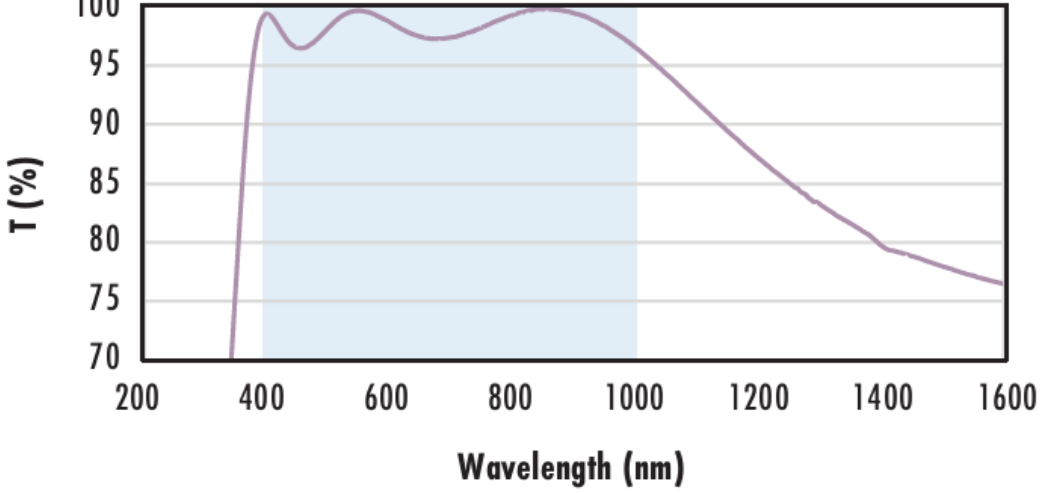
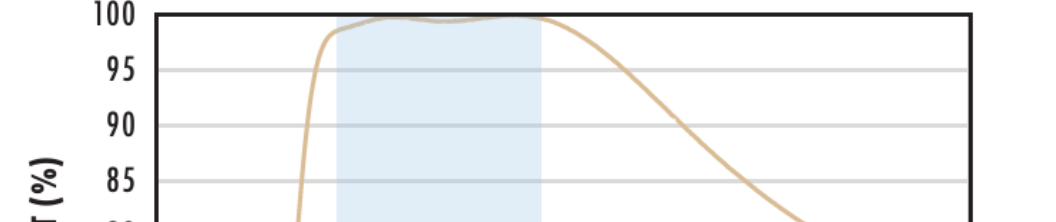
## PRODUCT DETAILS

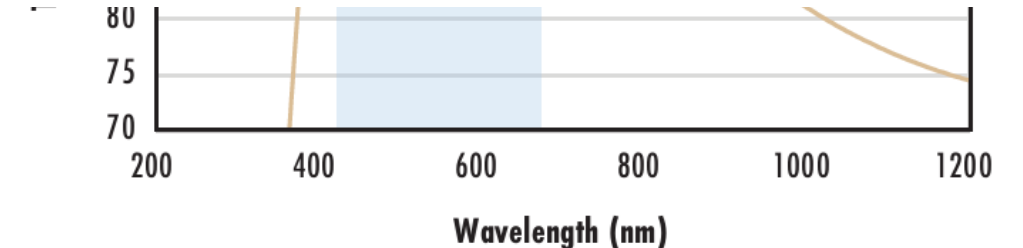
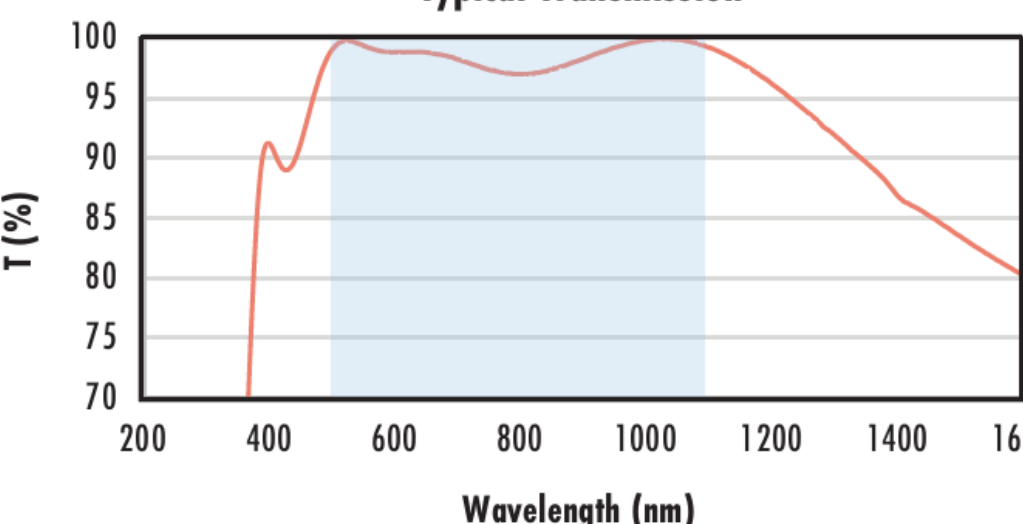
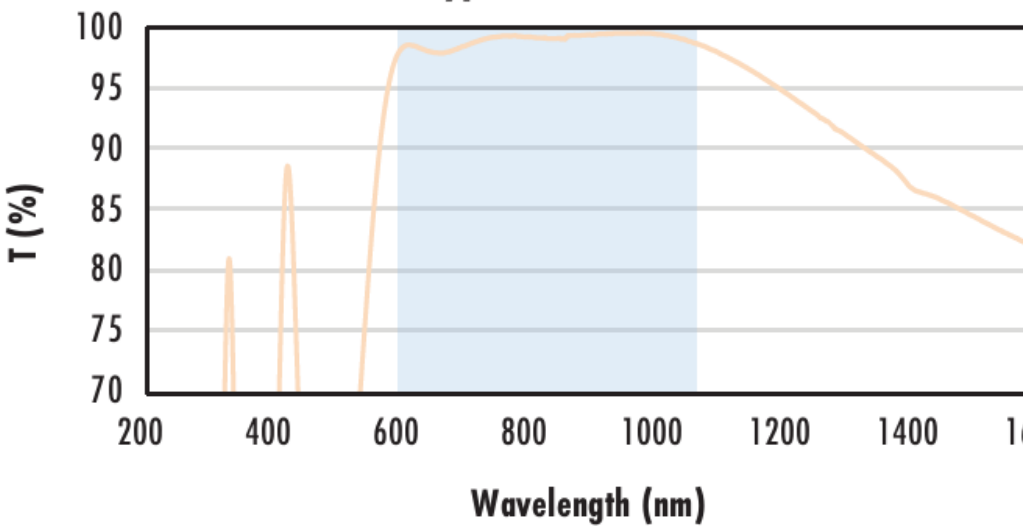
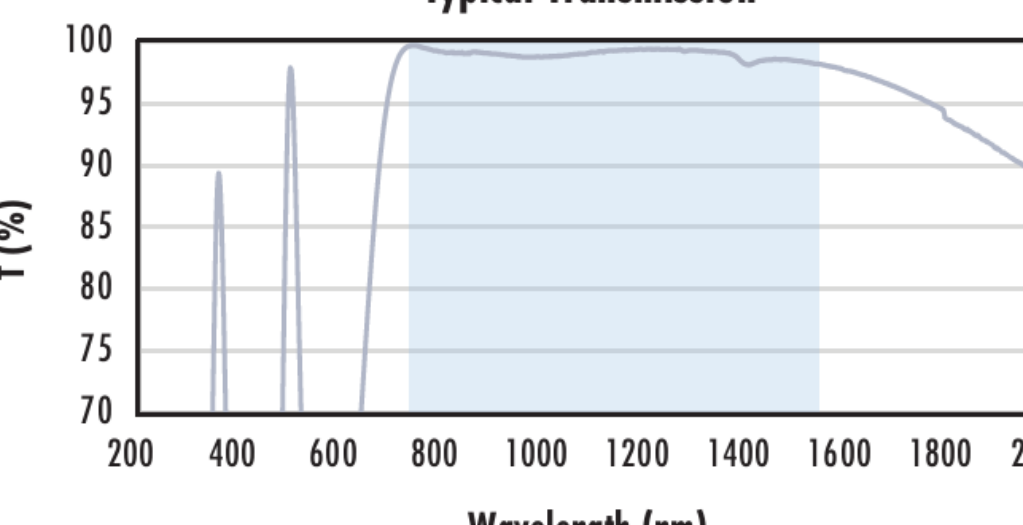
- Circular and Rectangular Sizes from 2mm to 200mm
- 8 Broadband Anti-Reflection Coating Options Available
- World's Largest Selection of Standard N-BK7 Windows
- Also Available with [Ultra-Thin N-BK7 Windows](#)

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                                                                                                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|--------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <div>Uncoated N-BK7 Typical Transmission</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>N-BK7 with MgF<sub>2</sub> Coating Typical Transmission</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\% @ 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>                                                                                                 |
| <div>N-BK7 with VIS-EXT Coating Typical Transmission</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\% @ 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>N-BK7 with VIS-NIR Coating Typical Transmission</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\% @ 880\text{nm}</math><br/><math>R_{avg} \leq 1.25\% @ 400 - 870\text{nm}</math><br/><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> |
| <div>N-BK7 with VIS 0° Coating Typical Transmission</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\% @ 425 - 675\text{nm}</math></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><a href="#">Click Here to Download Data</a></p>                                                                                                                                                                                                                                                                                                                                                                                 |
| <p><b>N-BK7 with YAG-BBAR Coating</b><br/><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\%</math> @ 532nm<br/><math>R_{abs} \leq 0.25\%</math> @ 1064nm<br/><math>R_{avg} \leq 1.0\%</math> @ 500 - 1100nm</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><br/><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\%</math> @ 600 - 1050nm</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><br/><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\%</math> @ 750 - 800nm<br/><math>R_{abs} \leq 1.0\%</math> @ 800 - 1550nm<br/><math>R_{avg} \leq 0.7\%</math> @ 750 - 1550nm</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](#).