

TECHSPEC<sup>®</sup> 50.8mm Dia., 4mm Thick, Uncoated  $\lambda$ /4 N-BK7 Window



Stock #15-426 9 In Stock

-

1

+

€111<sup>.00</sup>

ADD TO CART

| Volume Pricing |                               |
|----------------|-------------------------------|
| Qty 1-5        | €111,00 each                  |
| Qty 6-25       | €88,50 each                   |
| Qty 26-49      | €83,00 each                   |
| Need More?     | <a href="#">Request Quote</a> |

! Prices shown are exclusive of VAT/local taxes

Product Downloads

General

Protective Window

Type:

Physical & Mechanical Properties

45.72

Clear Aperture CA (mm):

50.80 +0.0/-0.25

Diameter (mm):

|                      |                          |
|----------------------|--------------------------|
| 4.00 ±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

|            |                                        |
|------------|----------------------------------------|
| Uncoated   | 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> ):         |
| 350 - 2200 | Wavelength Range (nm):                 |
| λ/4        | Surface Flatness (P-V):                |

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 | Reach 223:                  |
| View      | Certificate of Conformance: |

## Need different specs or modifications?

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](#).

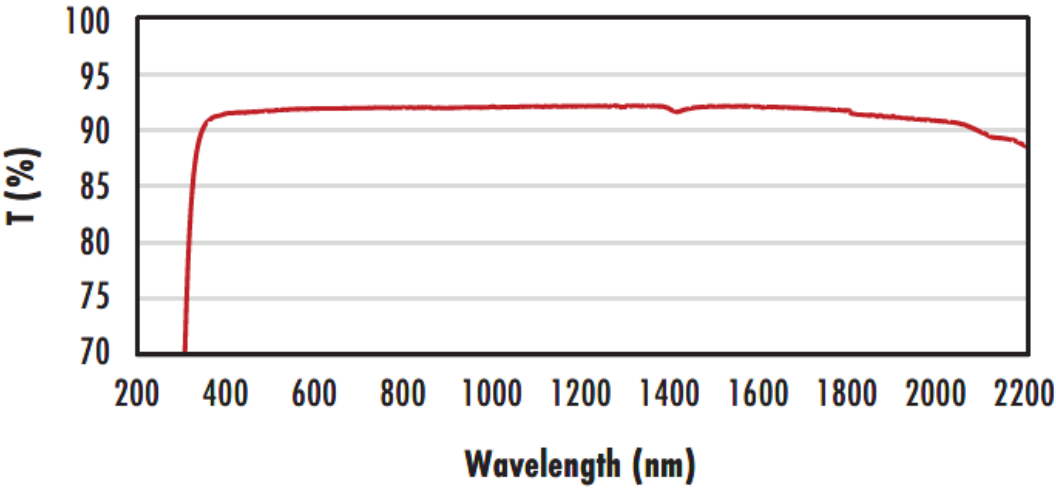
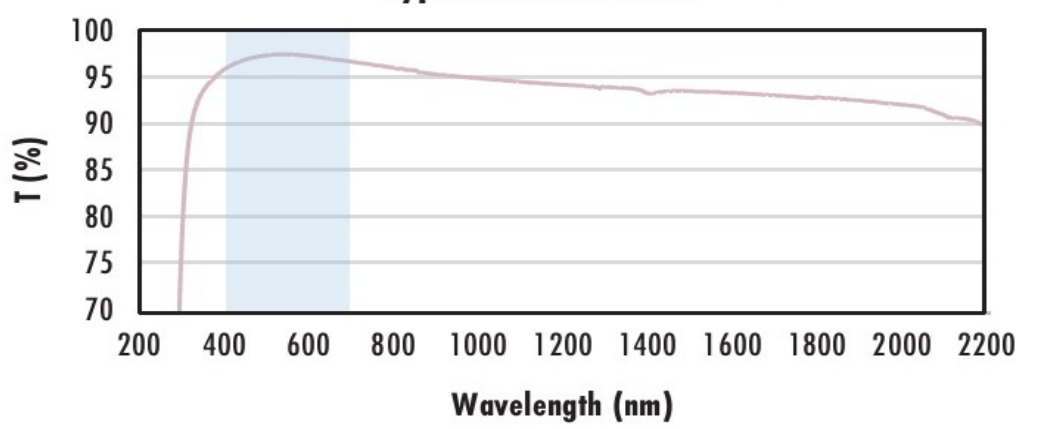
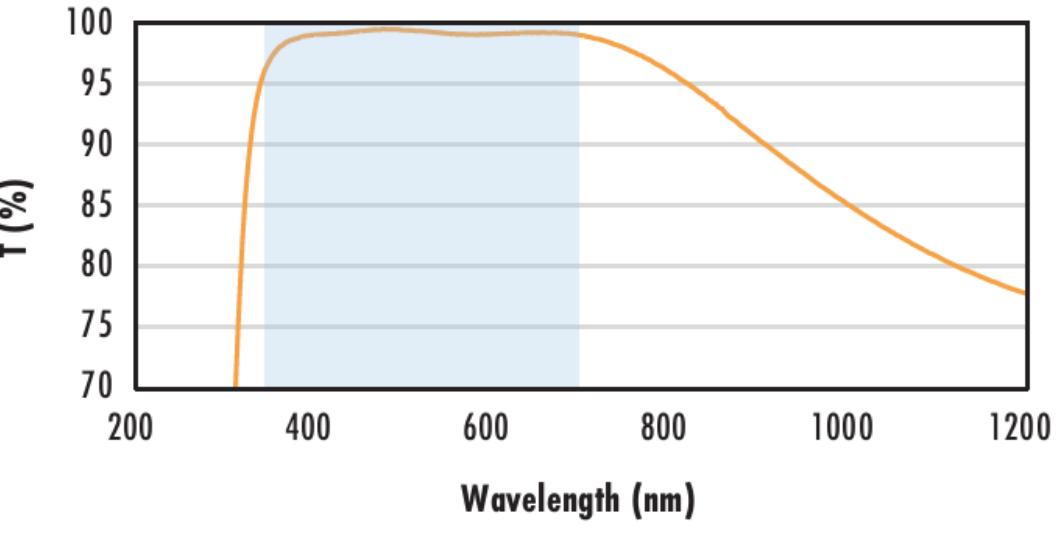
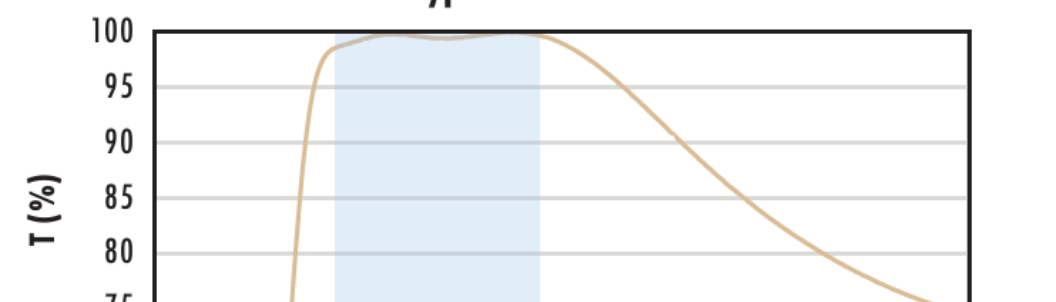
## Product Details

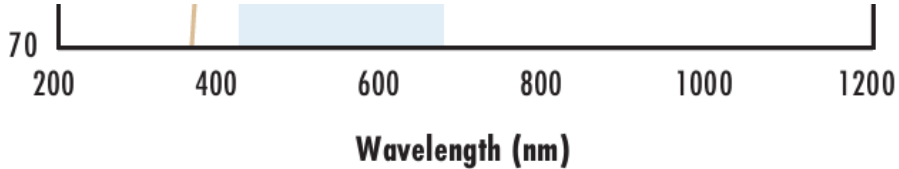
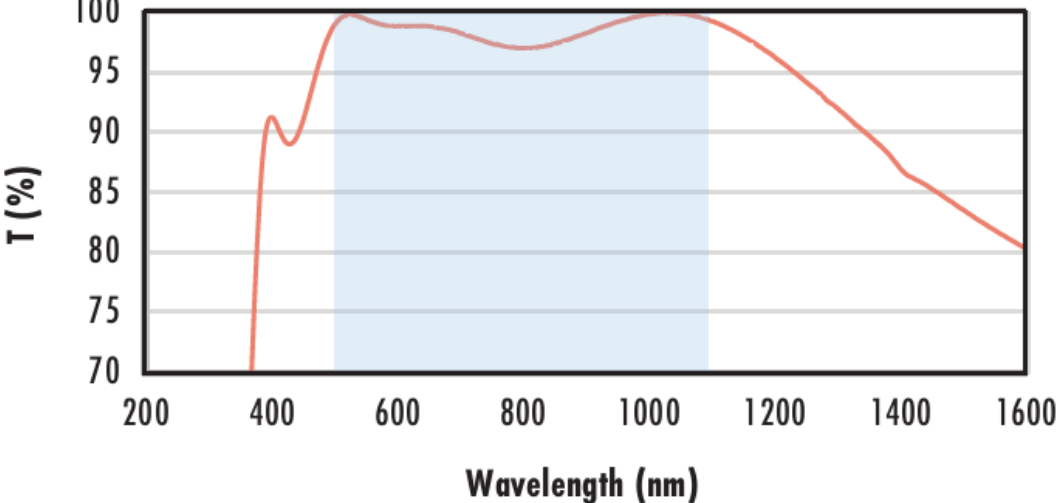
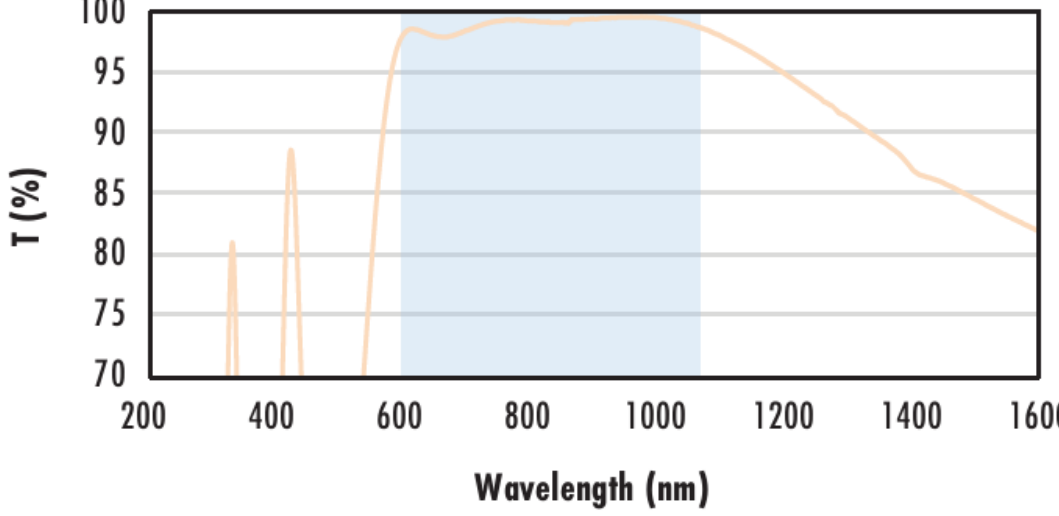
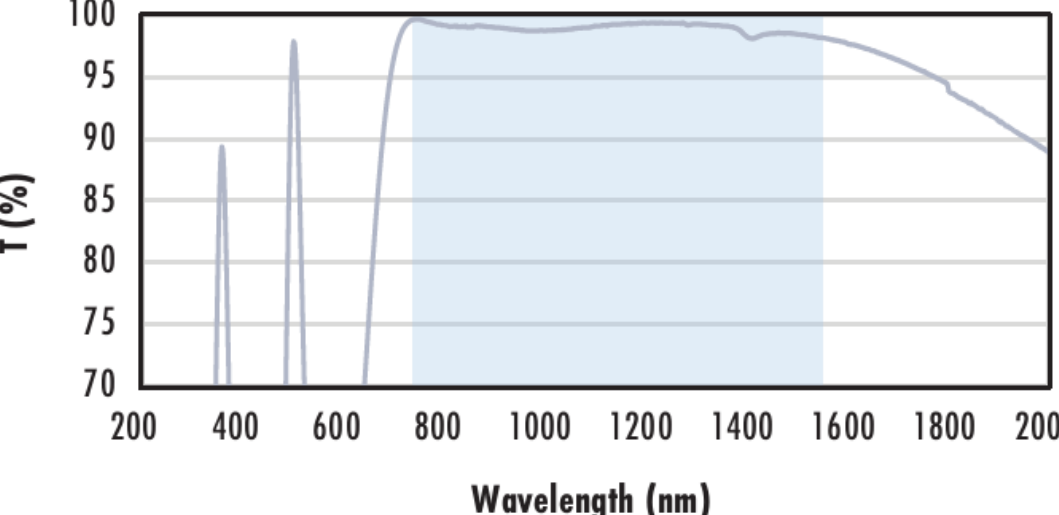
- Circular and Rectangular Sizes from 2mm to 200mm
- 8 Broadband Anti-Reflection Coating Options Available
- World's Largest Selection of Standard N-BK7 Windows
- Also Available with [Ultra-Thin N-BK7 Windows](#)

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="262 133 1249 667"><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="262 727 1249 1216"><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\% @ 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 data-bbox="262 1246 1249 1855"><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\% @ 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 1884 1249 2463"><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\% @ 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 data-bbox="262 2493 1249 2878"><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\% @ 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 data-bbox="569 281 1037 379"><b>N-BK7 with YAG-BBAR Coating</b><br/><b>Typical Transmission</b></p>    | <p data-bbox="1339 412 1839 463">Typical transmission of a 3mm thick N-BK7 window with YAG-BBAR (500-1100nm) coating at 0° AOI.</p> <p data-bbox="1331 477 1850 525">The blue shaded region indicates the coating design wavelength range, with the following specification:</p> <div data-bbox="1470 537 1711 611"><p><math>R_{abs} \leq 0.25\% @ 532nm</math></p><p><math>R_{abs} \leq 0.25\% @ 1064nm</math></p><p><math>R_{avg} \leq 1.0\% @ 500 - 1100nm</math></p></div> <p data-bbox="1339 623 1839 670">Data outside this range is not guaranteed and is for reference only.</p> <p data-bbox="1472 685 1709 706"><a href="#">Click Here to Download Data</a></p>                     |
| <p data-bbox="617 908 1008 1006"><b>N-BK7 with NIR I Coating</b><br/><b>Typical Transmission</b></p>    | <p data-bbox="1339 1074 1839 1124">Typical transmission of a 3mm thick N-BK7 window with NIR I (600 - 1050nm) coating at 0° AOI.</p> <p data-bbox="1331 1136 1850 1184">The blue shaded region indicates the coating design wavelength range, with the following specification:</p> <div data-bbox="1470 1196 1711 1222"><p><math>R_{avg} \leq 0.5\% @ 600 - 1050nm</math></p></div> <p data-bbox="1339 1234 1839 1282">Data outside this range is not guaranteed and is for reference only.</p> <p data-bbox="1472 1297 1709 1317"><a href="#">Click Here to Download Data</a></p>                                                                                                           |
| <p data-bbox="606 1555 1016 1653"><b>N-BK7 with NIR II Coating</b><br/><b>Typical Transmission</b></p>  | <p data-bbox="1339 1682 1839 1733">Typical transmission of a 3mm thick N-BK7 window with NIR II (750 - 1550nm) coating at 0° AOI.</p> <p data-bbox="1331 1745 1850 1792">The blue shaded region indicates the coating design wavelength range, with the following specification:</p> <div data-bbox="1470 1804 1711 1878"><p><math>R_{abs} \leq 1.5\% @ 750 - 800nm</math></p><p><math>R_{abs} \leq 1.0\% @ 800 - 1550nm</math></p><p><math>R_{avg} \leq 0.7\% @ 750 - 1550nm</math></p></div> <p data-bbox="1339 1914 1839 1961">Data outside this range is not guaranteed and is for reference only.</p> <p data-bbox="1472 1976 1709 1997"><a href="#">Click Here to Download Data</a></p> |

Compatible Mounts