

TECHSPEC<sup>®</sup> 10mm Sq., 1mm Thick, VIS-EXT Coated  $\lambda$ /4 N-BK7 Window



Stock **#23-457** 5 In Stock

-

1

+

£80<sup>.80</sup>

ADD TO CART

| Volume Pricing |                               |
|----------------|-------------------------------|
| Qty 1-5        | £80.80 each                   |
| Qty 6-25       | £65.20 each                   |
| Qty 26-49      | £60.80 each                   |
| Need More?     | <a href="#">Request Quote</a> |

!

 Prices shown are exclusive of VAT/local taxes

Product Downloads

43.00

#Sorting:

General

Protective Window

Type:

Physical & Mechanical Properties

9.00 x 9.00

Clear Aperture CA (mm):

|                           |                          |
|---------------------------|--------------------------|
| 10.00 x 10.00 +0.00/-0.25 | Dimensions (mm):         |
| 1.00 ±0.20                | Thickness (mm):          |
| 10.00                     | Length (mm):             |
| 10.00                     | Width (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

|                                      |                                        |
|--------------------------------------|----------------------------------------|
| VS-EXT (350-700nm)                   | 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>avg</sub> <0.5% @ 350 - 700nm | Coating Specification:                 |
| 350 - 700                            | Wavelength Range (nm):                 |
| 5 J/cm² @ 532nm, 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:                  |

## 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](#).

## Product Details

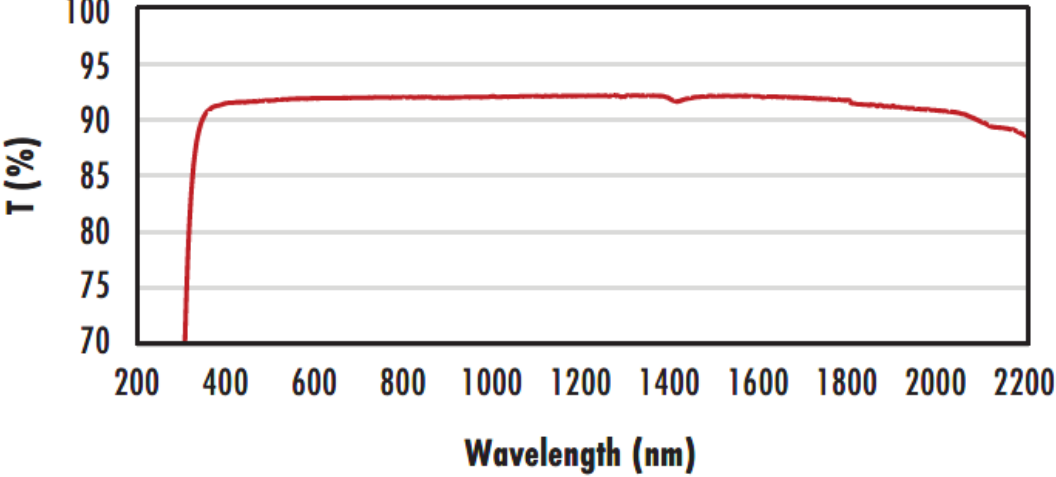
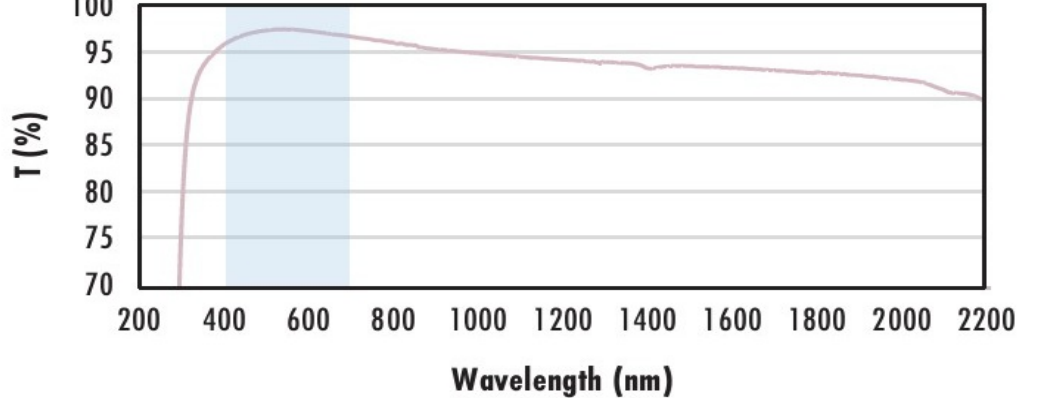
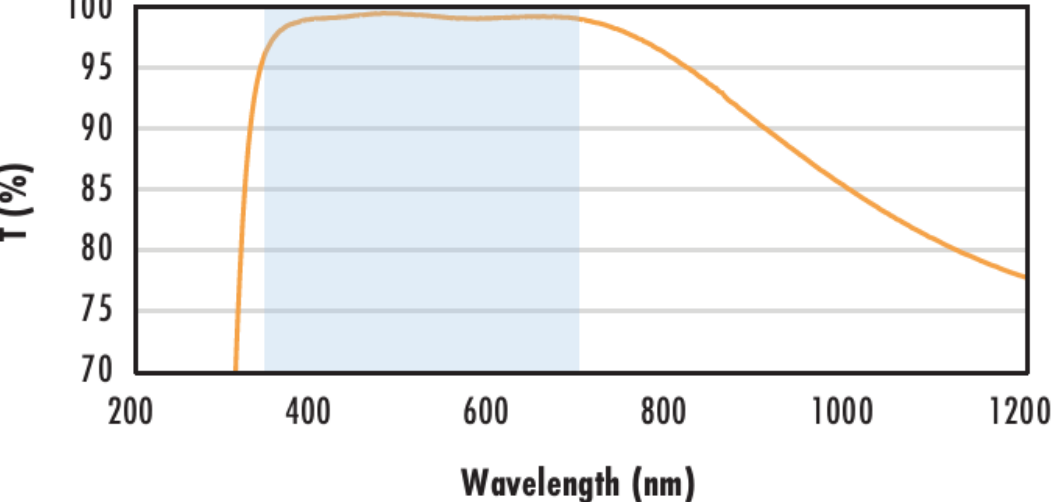
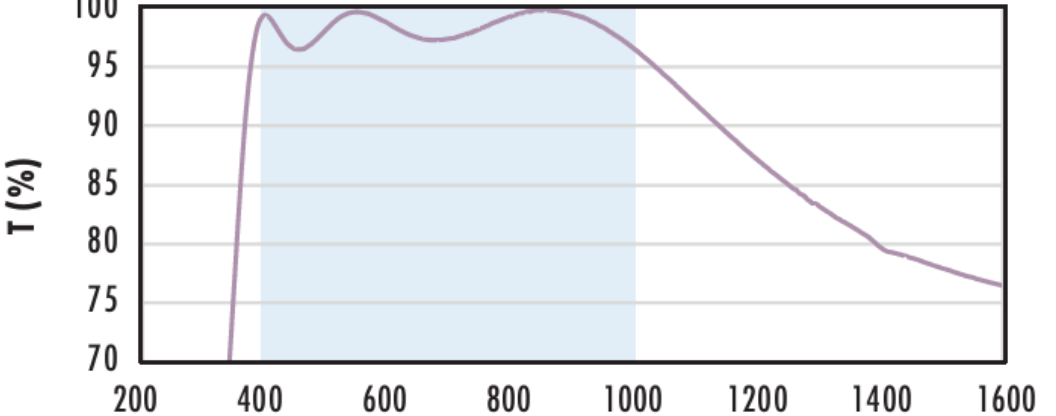
- Circular and Rectangular Sizes from 2mm to 200mm

- 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®  $\lambda/4$  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®  $\lambda/4$  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><div>Uncoated N-BK7 Typical Transmission</div></div>                      | <div>Typical transmission of a 3mm thick, uncoated N-BK7 window across the UV - NIR spectra.</div> <div><a href="#">Click Here to Download Data</a></div>                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <div><div>N-BK7 with MgF<sub>2</sub> Coating Typical Transmission</div></div> | <div>Typical transmission of a 3mm thick N-BK7 window with MgF2 (400-700nm) coating at 0° AOI.</div> <div>The blue shaded region indicates the coating design wavelength range, with the following specification:</div> <div><math>R_{avg} \leq 1.75\% \text{ @ } 400 - 700\text{nm (N-BK7)}</math></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 VIS-EXT Coating Typical Transmission</div></div>         | <div>Typical transmission of a 3mm thick N-BK7 window with VIS-EXT (350-700nm) coating at 0° AOI.</div> <div>The blue shaded region indicates the coating design wavelength range, with the following specification:</div> <div><math>R_{avg} \leq 0.5\% \text{ @ } 350 - 700\text{nm}</math></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 VIS-NIR Coating Typical Transmission</div></div>         | <div>Typical transmission of a 3mm thick N-BK7 window with VIS-NIR (400-1000nm) coating at 0° AOI.</div> <div>The blue shaded region indicates the coating design wavelength range, with the following specification:</div> <div><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></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> |

