

TECHSPEC<sup>®</sup> 75mm Sq., 2mm Thick, VIS 0° Coated  $\lambda$ /4 N-BK7 Window



Stock #23-398 12 In Stock

-

1

+

£191<sup>.20</sup>

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| Qty 1-5        | £191.20 each                  |
| Qty 6-25       | £152.80 each                  |
| Qty 26-49      | £143.20 each                  |
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!

 Prices shown are exclusive of VAT/local taxes

Product Downloads

381.00

#Sorting:

General

Protective Window

Type:

Physical & Mechanical Properties

67.50 x 67.50

Clear Aperture CA (mm):

|                           |                          |
|---------------------------|--------------------------|
| 75.00 x 75.00 +0.00/-0.25 | Dimensions (mm):         |
| 2.00 ±0.20                | Thickness (mm):          |
| 75.00                     | Length (mm):             |
| 75.00                     | 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 0° (425-675nm)                    | Coating:                               |
| N-BK7                                | Substrate: □                           |
| 1.516                                | Index of Refraction (n <sub>d</sub> ): |
| 60-40                                | Surface Quality:                       |
| λ/4 (per 50mm Dia.)                  | Transmitted Wavefront, P-V:            |
| 64.17                                | Abbe Number (v <sub>d</sub> ):         |
| R <sub>avg</sub> ≤0.4% @ 425 - 675nm | Coating Specification:                 |
| 425 - 675                            | Wavelength Range (nm):                 |
| 5 J/cm² @ 532nm, 10ns                | Damage Threshold, Reference:           |

|                                           |                                                              |
|-------------------------------------------|--------------------------------------------------------------|
| 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

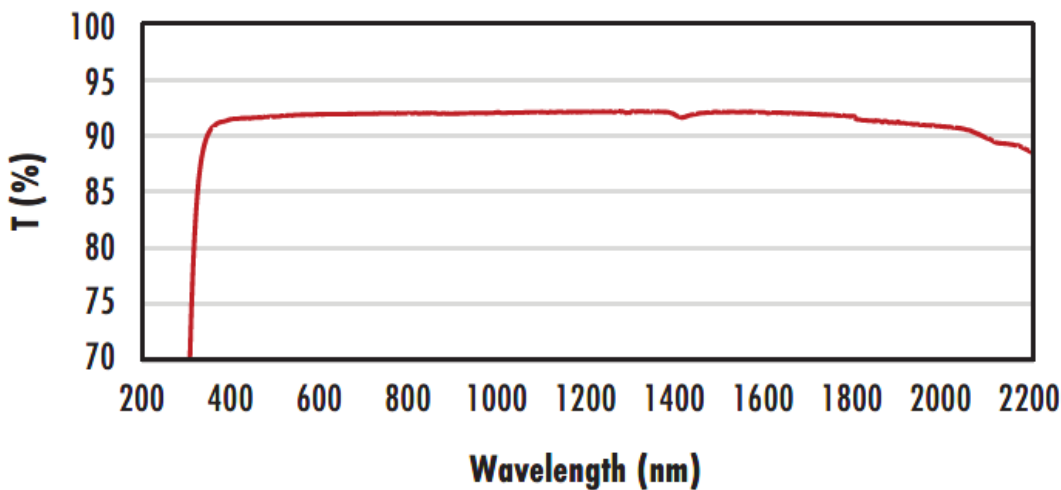
- Circular and Rectangular Sizes from 2mm to 200mm
- 8 Broadband Anti-Reflection Coating Options Available
- World's Largest Selection of Standard N-BK7 Windows
- Also Available with [Ultra-Thin N-BK7 Windows](#)

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

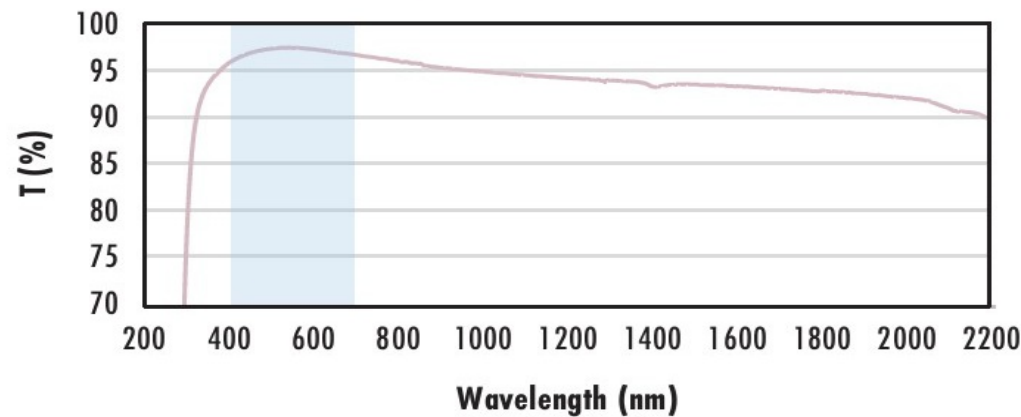
Uncoated N-BK7 Typical Transmission



Typical transmission of a 3mm thick, uncoated N-BK7 window across the UV - NIR spectra.

[Click Here to Download Data](#)

N-BK7 with MgF<sub>2</sub> Coating Typical Transmission



Typical transmission of a 3mm thick N-BK7 window with MgF<sub>2</sub> (400-700nm) coating at 0° AOI.

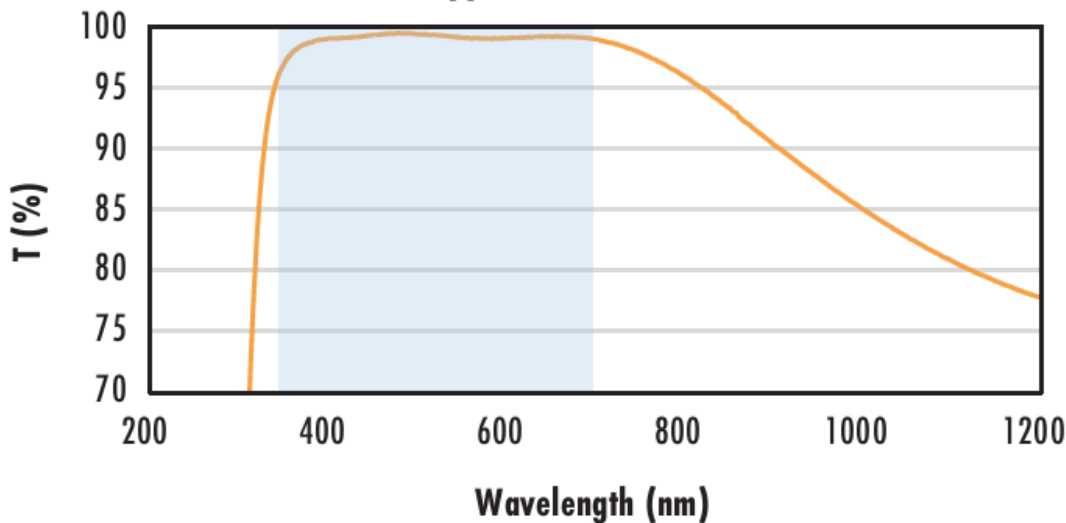
The blue shaded region indicates the coating design wavelength range, with the following specification:

$$R_{avg} \leq 1.75\% \text{ @ } 400 - 700\text{nm (N-BK7)}$$

Data outside this range is not guaranteed and is for reference only.

[Click Here to Download Data](#)

N-BK7 with VIS-EXT Coating Typical Transmission



Typical transmission of a 3mm thick N-BK7 window with VIS-EXT (350-700nm) coating at 0° AOI.

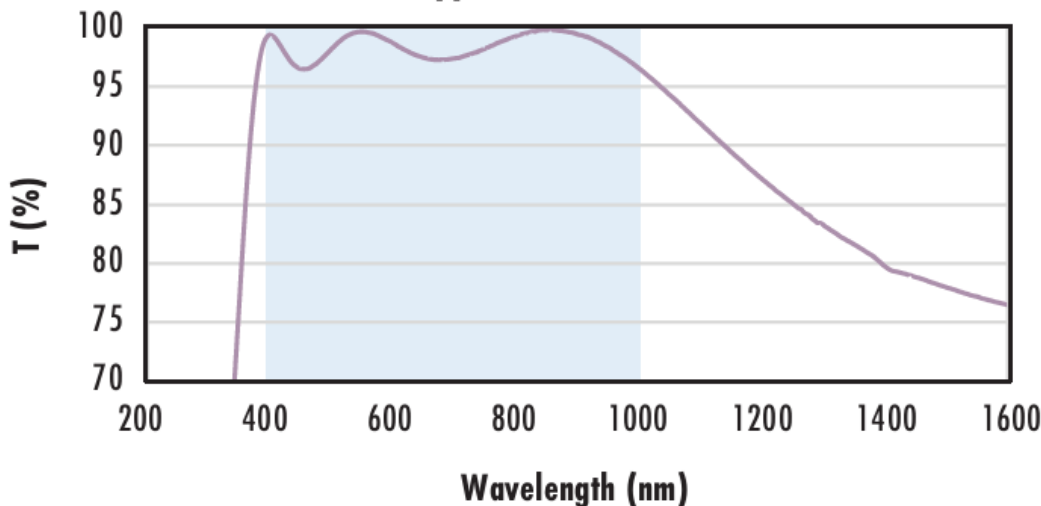
The blue shaded region indicates the coating design wavelength range, with the following specification:

$$R_{avg} \leq 0.5\% \text{ @ } 350 - 700\text{nm}$$

Data outside this range is not guaranteed and is for reference only.

[Click Here to Download Data](#)

N-BK7 with VIS-NIR Coating Typical Transmission



Typical transmission of a 3mm thick N-BK7 window with VIS-NIR (400-1000nm) coating at 0° AOI.

The blue shaded region indicates the coating design wavelength range, with the following specification:

$$R_{abs} \leq 0.25\% \text{ @ } 880\text{nm}$$

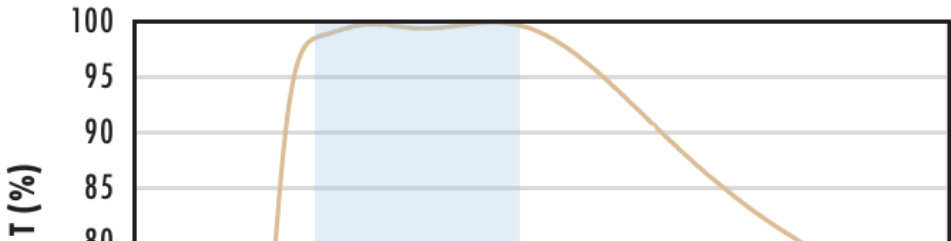
$$R_{avg} \leq 1.25\% \text{ @ } 400 - 870\text{nm}$$

$$R_{avg} \leq 1.25\% \text{ @ } 890 - 1000\text{nm}$$

Data outside this range is not guaranteed and is for reference only.

[Click Here to Download Data](#)

N-BK7 with VIS 0° Coating Typical Transmission



Typical transmission of a 3mm thick N-BK7 window with VIS 0° (425-675nm) coating at 0° AOI.

The blue shaded region indicates the coating design wavelength range, with the following specification:

$$R_{avg} \leq 0.4\% \text{ @ } 425 - 675\text{nm}$$

Data outside this range is not guaranteed and is for reference

|                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                                             | <p>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\% @ 532nm</math><br/><math>R_{abs} \leq 0.25\% @ 1064nm</math><br/><math>R_{avg} \leq 1.0\% @ 500 - 1100nm</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><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\% @ 600 - 1050nm</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><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\% @ 750 - 800nm</math><br/><math>R_{abs} \leq 1.0\% @ 800 - 1550nm</math><br/><math>R_{avg} \leq 0.7\% @ 750 - 1550nm</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> |

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](#).

