

TECHSPEC<sup>®</sup> 35mm Sq., 1mm Thick, VIS-EXT Coated  $\lambda$ /4 N-BK7 Window



Stock **#23-460** [CONTACT US](#)

-

1

+

₹8,729

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| Qty 1-5        | ₹8,729 each                   |
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General

|                   |       |
|-------------------|-------|
| Protective Window | Type: |
|-------------------|-------|

Physical & Mechanical Properties

|               |                         |
|---------------|-------------------------|
| 31.50 x 31.50 | Clear Aperture CA (mm): |
|---------------|-------------------------|

|                           |                                       |
|---------------------------|---------------------------------------|
| 35.00 x 35.00 +0.00/-0.25 | Dimensions (mm):                      |
| 1.00 ±0.20                | Thickness (mm):                       |
| 35.00                     | Length (mm):                          |
| 35.00                     | 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/mm <sup>2</sup> ): |

|                                      |                                        |
|--------------------------------------|----------------------------------------|
| Optical Properties                   |                                        |
| VS-EXT (350-700nm)                   | Coating:                               |
| N-BK7                                | Substrate: <input type="checkbox"/>    |
| 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/cm <sup>2</sup> @ 532nm, 10ns    | Damage Threshold, By Design:           |

|                                           |                                                              |
|-------------------------------------------|--------------------------------------------------------------|
| Material Properties                       |                                                              |
| 2.51                                      | Density (g/cm <sup>3</sup> ):                                |
| 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:                  |
| Vietnam                             | Country of Origin:          |
| Edmund Optics India Private Limited | Imported By:                |

## 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](#).

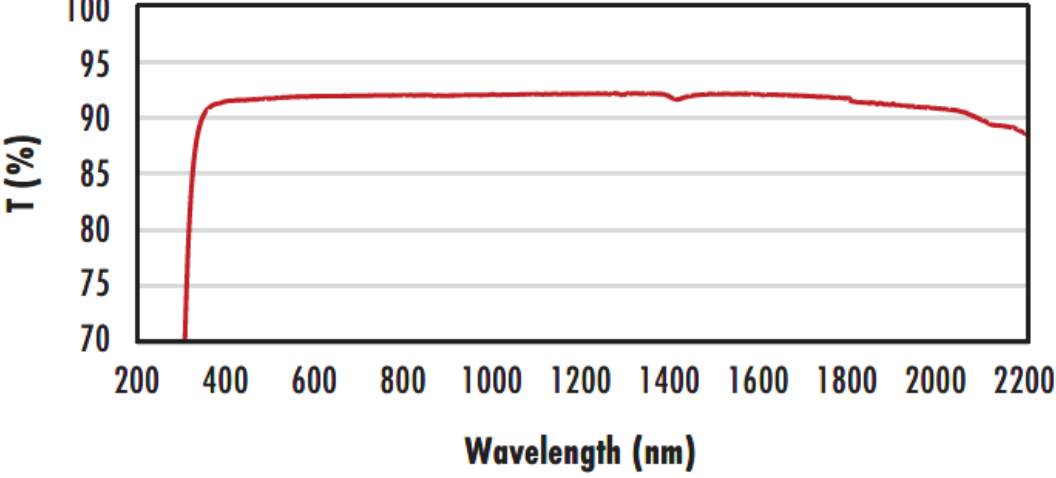
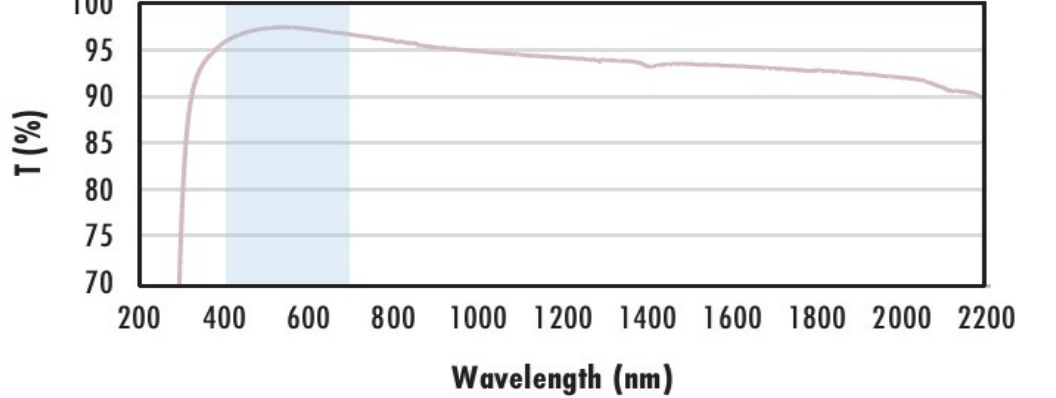
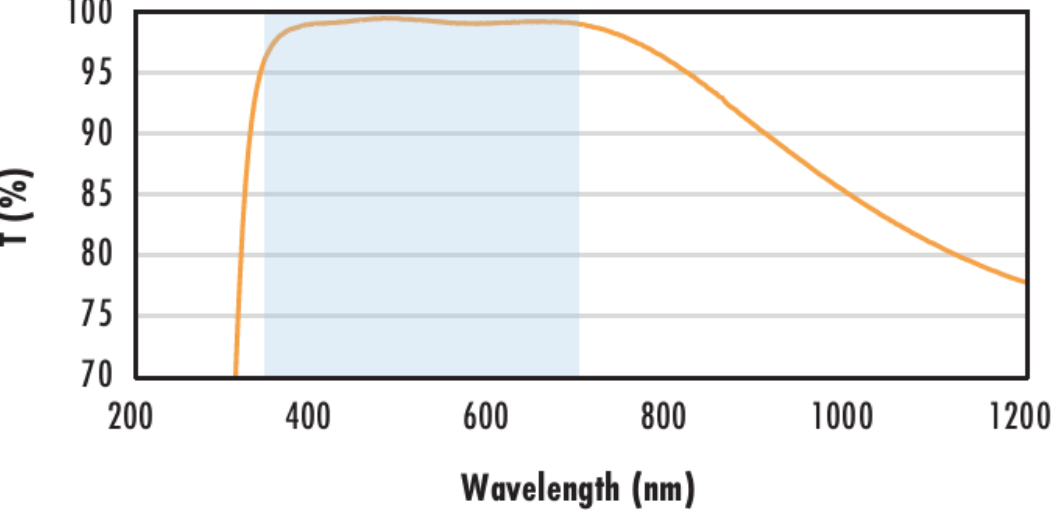
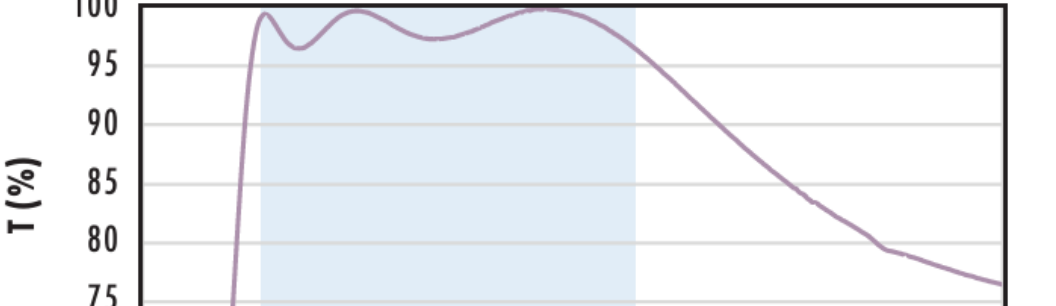
Product Details

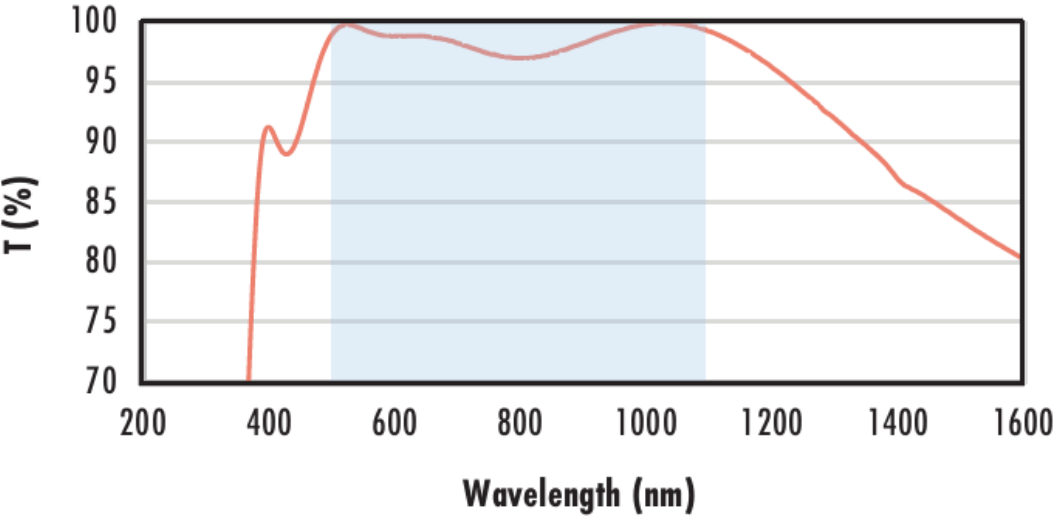
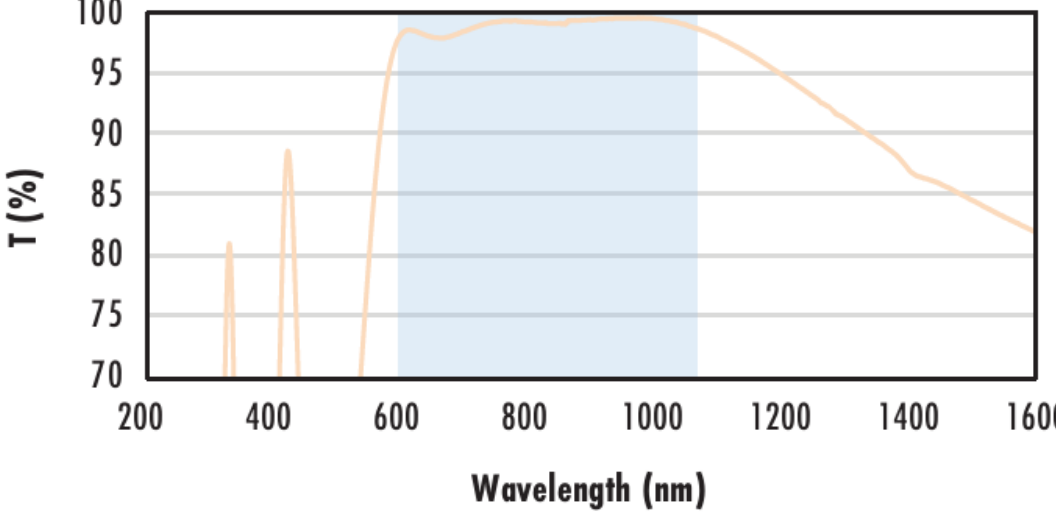
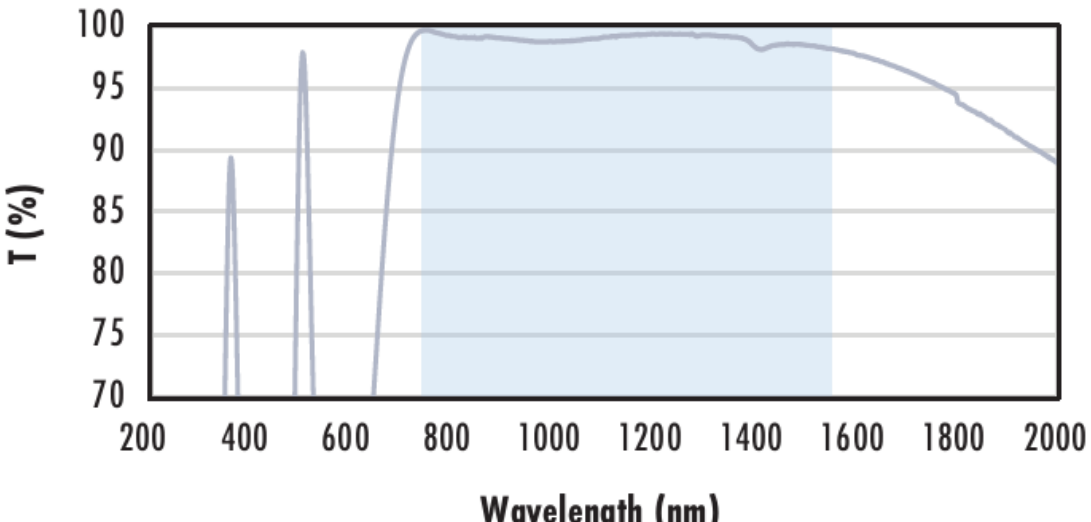
- Circular and Rectangular Sizes from 2mm to 200mm
- 8 Broadband Anti-Reflection Coating Options Available
- World's Largest Selection of Standard N-BK7 Windows
- Also Available with [Ultra-Thin N-BK7 Windows](#)

TECHSPEC® *N4* 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® *N4* 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> |

|                                                                                                                                                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                                                                            | <a href="#">Click Here to Download Data</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| <p data-bbox="596 290 974 379"><b>N-BK7 with VIS 0° Coating</b><br/><b>Typical Transmission</b></p>       | <p data-bbox="1339 427 1843 477">Typical transmission of a 3mm thick N-BK7 window with VIS 0° (425-675nm) coating at 0° AOI.</p> <p data-bbox="1339 489 1850 540">The blue shaded region indicates the coating design wavelength range, with the following specification:</p> <p data-bbox="1478 552 1711 578"><math>R_{avg} \leq 0.4\% @ 425 - 675\text{nm}</math></p> <p data-bbox="1339 590 1839 641">Data outside this range is not guaranteed and is for reference only.</p> <p data-bbox="1478 652 1711 679"><a href="#">Click Here to Download Data</a></p>                                                                                                                                                                                                        |
| <p data-bbox="569 887 1037 976"><b>N-BK7 with YAG-BBAR Coating</b><br/><b>Typical Transmission</b></p>   | <p data-bbox="1339 1020 1843 1071">Typical transmission of a 3mm thick N-BK7 window with YAG-BBAR (500-1100nm) coating at 0° AOI.</p> <p data-bbox="1339 1083 1850 1133">The blue shaded region indicates the coating design wavelength range, with the following specification:</p> <p data-bbox="1478 1145 1711 1172"><math>R_{abs} \leq 0.25\% @ 532\text{nm}</math></p> <p data-bbox="1478 1175 1711 1202"><math>R_{abs} \leq 0.25\% @ 1064\text{nm}</math></p> <p data-bbox="1478 1205 1711 1231"><math>R_{avg} \leq 1.0\% @ 500 - 1100\text{nm}</math></p> <p data-bbox="1339 1243 1839 1294">Data outside this range is not guaranteed and is for reference only.</p> <p data-bbox="1478 1302 1711 1329"><a href="#">Click Here to Download Data</a></p>           |
| <p data-bbox="617 1522 1010 1611"><b>N-BK7 with NIR I Coating</b><br/><b>Typical Transmission</b></p>   | <p data-bbox="1339 1685 1843 1736">Typical transmission of a 3mm thick N-BK7 window with NIR I (600 - 1050nm) coating at 0° AOI.</p> <p data-bbox="1339 1748 1850 1798">The blue shaded region indicates the coating design wavelength range, with the following specification:</p> <p data-bbox="1478 1810 1711 1837"><math>R_{avg} \leq 0.5\% @ 600 - 1050\text{nm}</math></p> <p data-bbox="1339 1849 1839 1899">Data outside this range is not guaranteed and is for reference only.</p> <p data-bbox="1478 1908 1711 1935"><a href="#">Click Here to Download Data</a></p>                                                                                                                                                                                           |
| <p data-bbox="606 2160 1016 2249"><b>N-BK7 with NIR II Coating</b><br/><b>Typical Transmission</b></p>  | <p data-bbox="1339 2294 1843 2344">Typical transmission of a 3mm thick N-BK7 window with NIR II (750 - 1550nm) coating at 0° AOI.</p> <p data-bbox="1339 2356 1850 2407">The blue shaded region indicates the coating design wavelength range, with the following specification:</p> <p data-bbox="1478 2418 1711 2445"><math>R_{abs} \leq 1.5\% @ 750 - 800\text{nm}</math></p> <p data-bbox="1478 2448 1711 2475"><math>R_{abs} \leq 1.0\% @ 800 - 1550\text{nm}</math></p> <p data-bbox="1478 2478 1711 2504"><math>R_{avg} \leq 0.7\% @ 750 - 1550\text{nm}</math></p> <p data-bbox="1339 2528 1839 2579">Data outside this range is not guaranteed and is for reference only.</p> <p data-bbox="1478 2588 1711 2614"><a href="#">Click Here to Download Data</a></p> |

