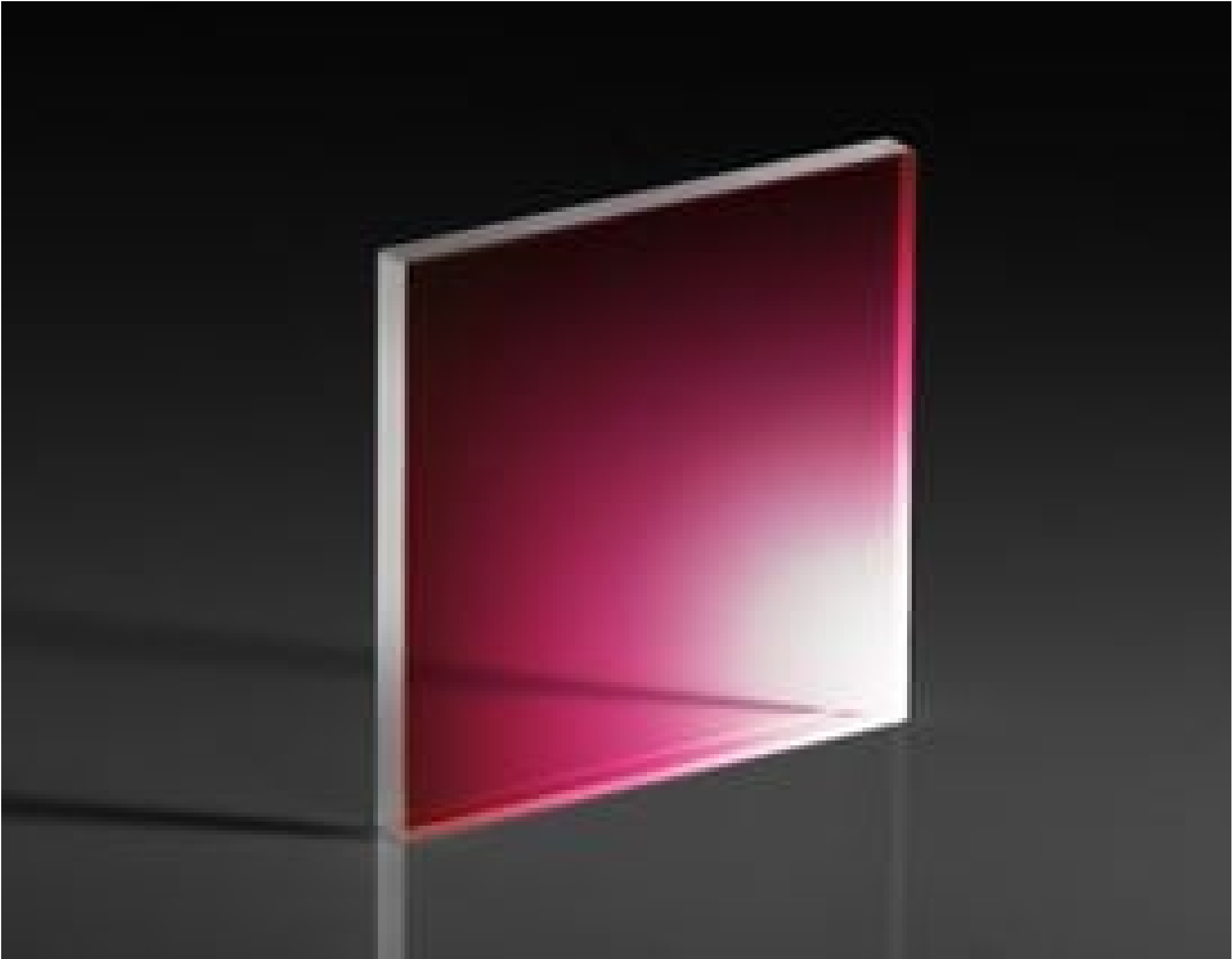


TECHSPEC<sup>®</sup> 50mm Sq., 2mm Thick, YAG-BBAR Coated  $\lambda$ /4 N-BK7 Window



Stock #23-485 5 In Stock

-

1

+

A\$244<sup>.80</sup>

ADD TO CART

| Volume Pricing |                               |
|----------------|-------------------------------|
| Qty 1-5        | A\$244.80 each                |
| Qty 6-25       | A\$195.20 each                |
| Qty 26-49      | A\$182.40 each                |
| Need More?     | <a href="#">Request Quote</a> |

Product Downloads

General

Protective Window

Type:

Physical & Mechanical Properties

Protective as needed

Bevel:

90

Clear Aperture (%):

|                           |                          |
|---------------------------|--------------------------|
| 45.00 x 45.00             | Clear Aperture CA (mm):  |
| 50.00 x 50.00 +0.00/-0.25 | Dimensions (mm):         |
| 2.00 ±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):   |
| 50.00                     | Length (mm):             |
| 50.00                     | Width (mm):              |

|                                                                                                                                  |                                        |
|----------------------------------------------------------------------------------------------------------------------------------|----------------------------------------|
| Optical Properties                                                                                                               |                                        |
| 64.17                                                                                                                            | Abbe Number (v <sub>d</sub> ):         |
| YAG-BBAR (500-1100nm)                                                                                                            | Coating:                               |
| Coating Specification:<br>R <sub>abs</sub> <0.25% @ 532nm R <sub>abs</sub> <0.25% @ 1064nm R <sub>avg</sub> <1.0% @ 500 - 1100nm |                                        |
| 1.516                                                                                                                            | Index of Refraction (n <sub>d</sub> ): |
| N-BK7                                                                                                                            | Substrate:                             |
| 60-40                                                                                                                            | Surface Quality:                       |
| λ/4                                                                                                                              | Transmitted Wavefront, P-V:            |
| 500 - 1100                                                                                                                       | Wavelength Range (nm):                 |

|                       |                                                       |
|-----------------------|-------------------------------------------------------|
| 5 J/cm² @ 532nm, 10ns | Damage Threshold, By Design: <input type="checkbox"/> |
|-----------------------|-------------------------------------------------------|

|                                           |                                                              |
|-------------------------------------------|--------------------------------------------------------------|
| Material Properties                       |                                                              |
| 7.1 (-30 to +70°C)<br>8.3 (+20 to +300°C) | Coefficient of Thermal Expansion CTE (10 <sup>-6</sup> /°C): |
| 2.51                                      | Density (g/cm³):                                             |

|                       |                             |
|-----------------------|-----------------------------|
| Regulatory Compliance |                             |
| Compliant             | RoHS 2015:                  |
| View                  | Certificate of Conformance: |
| Compliant             | Reach 235:                  |

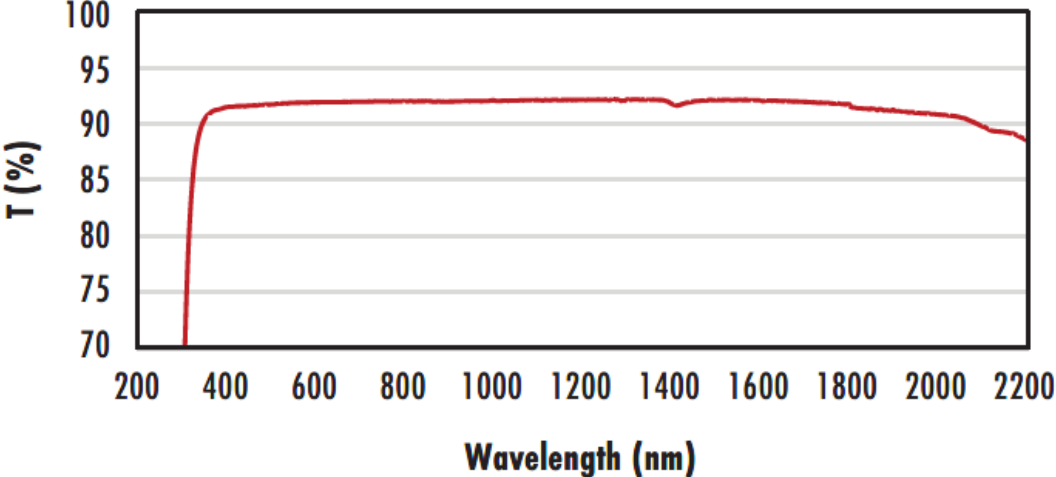
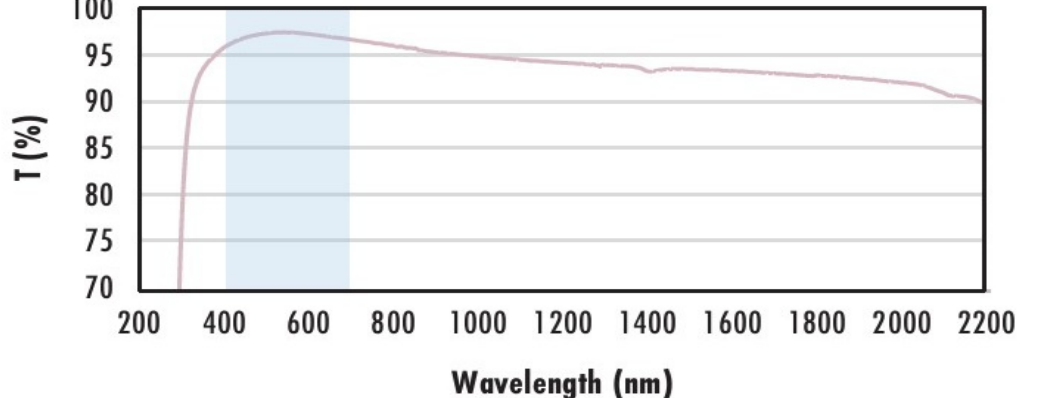
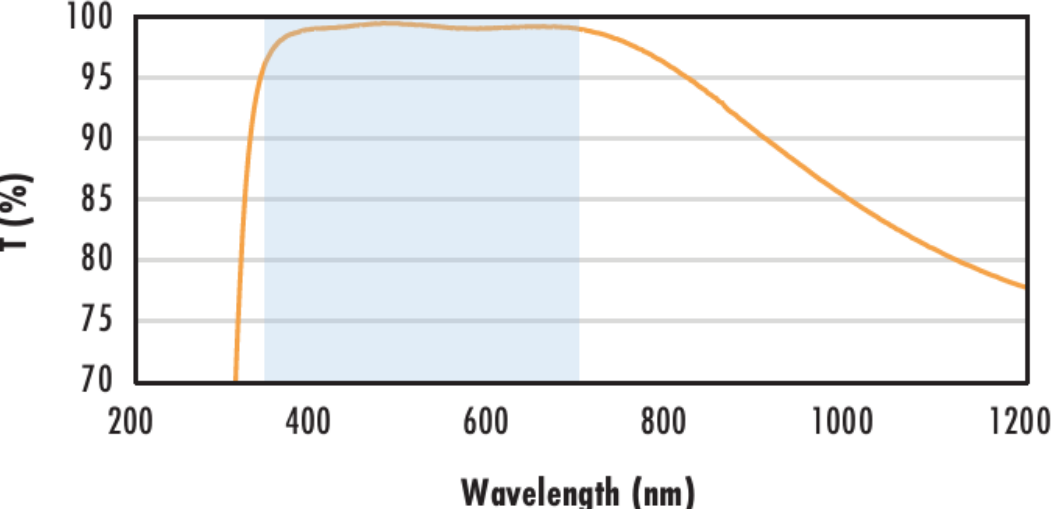
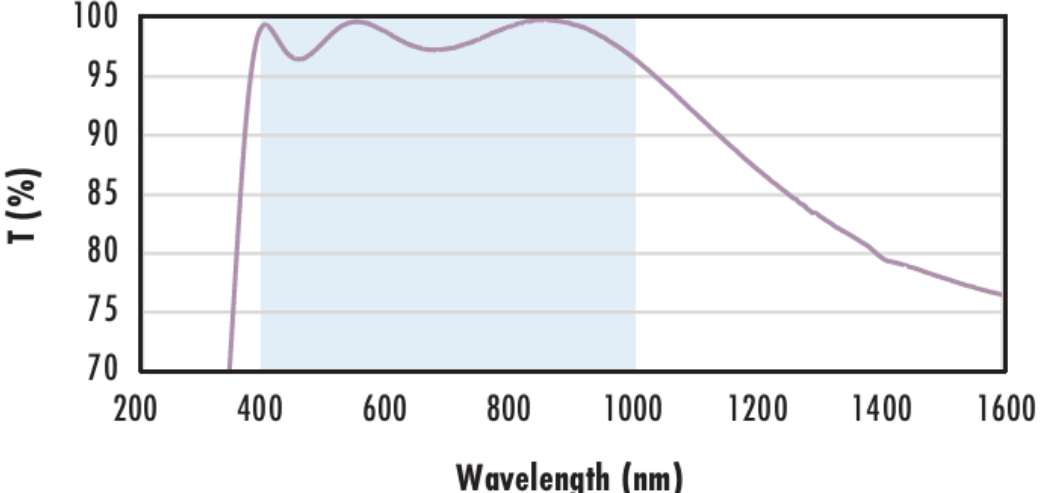
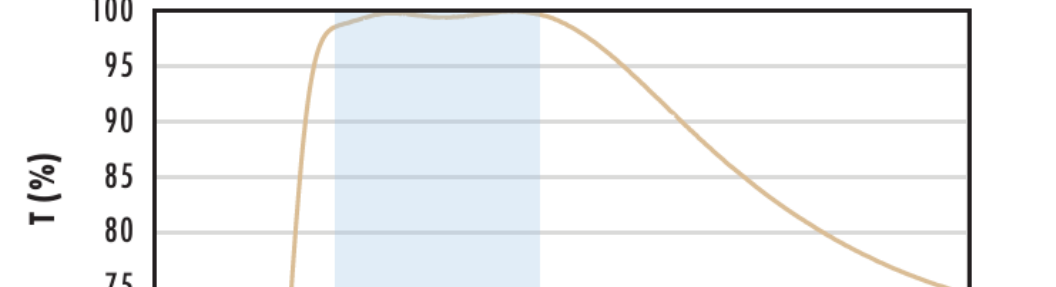
## Product Details

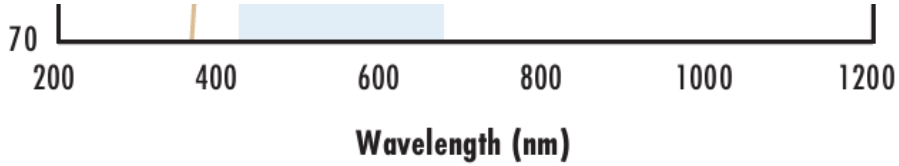
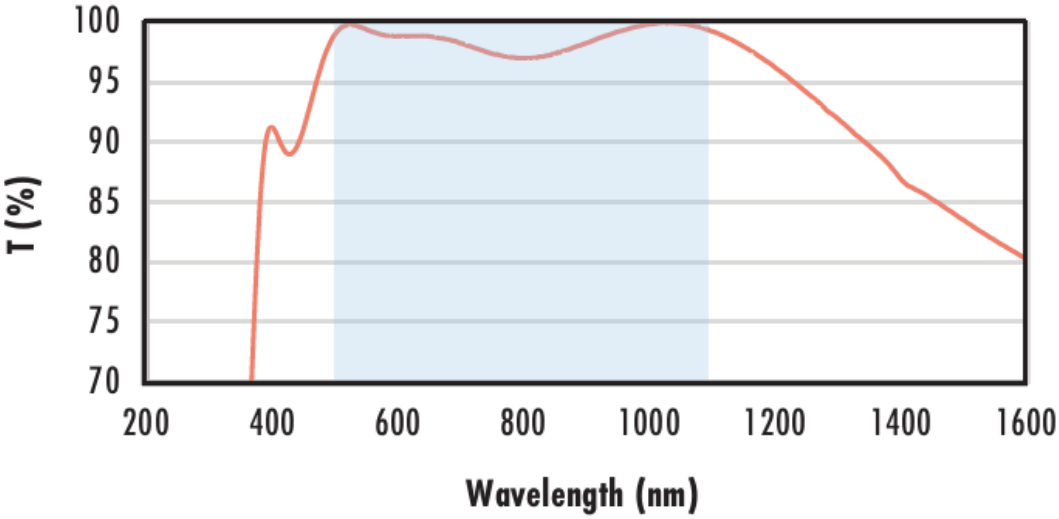
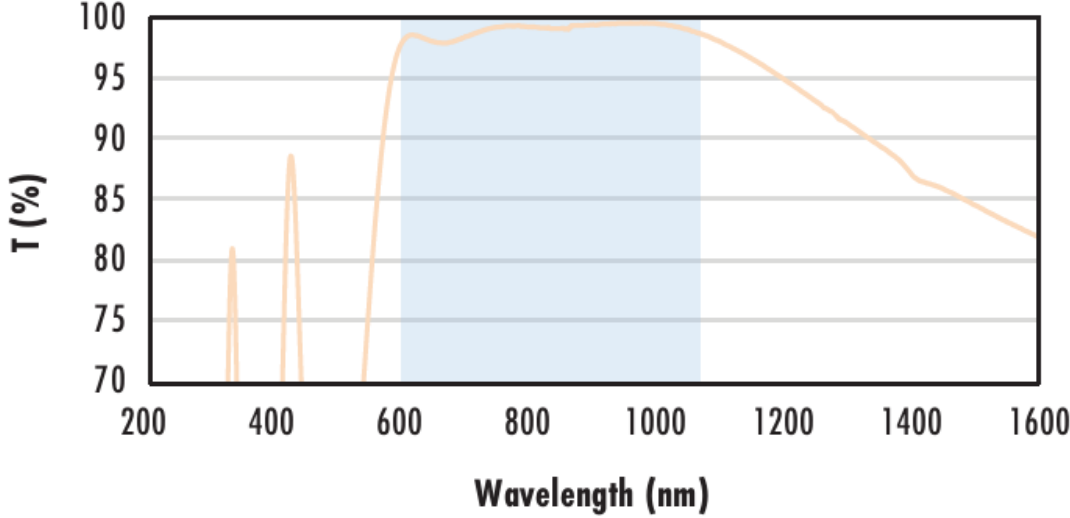
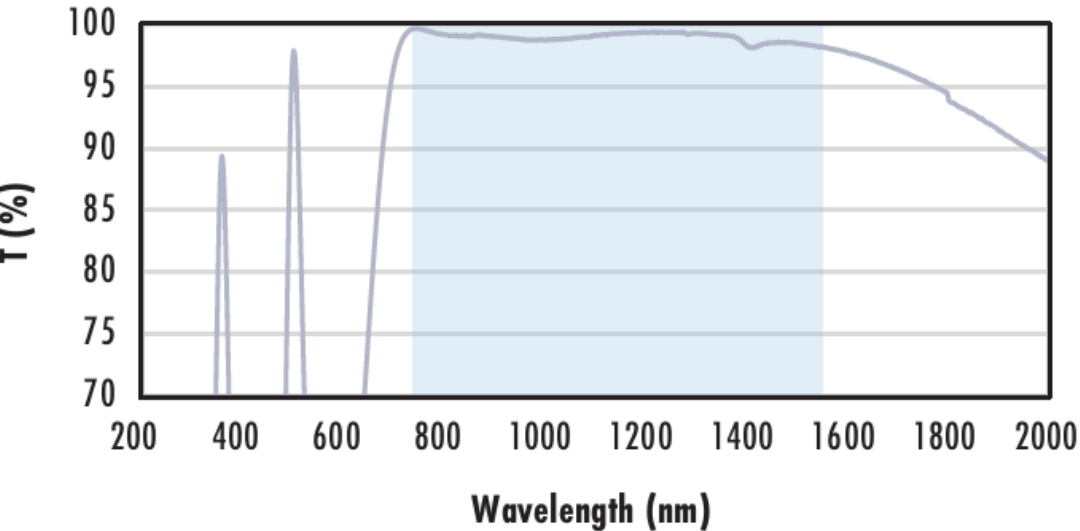
- Circular and Rectangular Sizes from 2mm to 200mm
- 8 Broadband Anti-Reflection Coating Options Available
- World's Largest Selection of Standard N-BK7 Windows
- Also Available with [Ultra-Thin N-BK7 Windows](#)

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

|                                                                                                                                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p><b>Uncoated N-BK7 Typical Transmission</b></p>                       | <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>                                                                                                                                                                                                                                                                                                                                                                              |
| <p><b>N-BK7 with MgF<sub>2</sub> Coating Typical Transmission</b></p>  | <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>                                                                                                 |
| <p><b>N-BK7 with VIS-EXT Coating Typical Transmission</b></p>         | <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>                                                                                                                  |
| <p><b>N-BK7 with VIS-NIR Coating Typical Transmission</b></p>         | <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> |
| <p><b>N-BK7 with VIS 0° Coating Typical Transmission</b></p>          | <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="569 276 1037 373"><b>N-BK7 with YAG-BBAR Coating</b><br/><b>Typical Transmission</b></p>    | <p data-bbox="1341 406 1839 454">Typical transmission of a 3mm thick N-BK7 window with YAG-BBAR (500-1100nm) coating at 0° AOI.</p> <p data-bbox="1331 468 1850 516">The blue shaded region indicates the coating design wavelength range, with the following specification:</p> <div data-bbox="1470 531 1711 605"><p><math>R_{abs} \leq 0.25\% @ 532\text{nm}</math></p><p><math>R_{abs} \leq 0.25\% @ 1064\text{nm}</math></p><p><math>R_{avg} \leq 1.0\% @ 500 - 1100\text{nm}</math></p></div> <p data-bbox="1341 617 1839 664">Data outside this range is not guaranteed and is for reference only.</p> <p data-bbox="1472 679 1709 700"><a href="#">Click Here to Download Data</a></p>                     |
| <p data-bbox="617 902 1005 1000"><b>N-BK7 with NIR I Coating</b><br/><b>Typical Transmission</b></p>    | <p data-bbox="1341 1065 1839 1113">Typical transmission of a 3mm thick N-BK7 window with NIR I (600 - 1050nm) coating at 0° AOI.</p> <p data-bbox="1331 1127 1850 1175">The blue shaded region indicates the coating design wavelength range, with the following specification:</p> <div data-bbox="1470 1190 1711 1216"><p><math>R_{avg} \leq 0.5\% @ 600 - 1050\text{nm}</math></p></div> <p data-bbox="1341 1228 1839 1276">Data outside this range is not guaranteed and is for reference only.</p> <p data-bbox="1472 1291 1709 1311"><a href="#">Click Here to Download Data</a></p>                                                                                                                         |
| <p data-bbox="606 1546 1016 1644"><b>N-BK7 with NIR II Coating</b><br/><b>Typical Transmission</b></p>  | <p data-bbox="1341 1673 1839 1721">Typical transmission of a 3mm thick N-BK7 window with NIR II (750 - 1550nm) coating at 0° AOI.</p> <p data-bbox="1331 1736 1850 1783">The blue shaded region indicates the coating design wavelength range, with the following specification:</p> <div data-bbox="1470 1798 1711 1872"><p><math>R_{abs} \leq 1.5\% @ 750 - 800\text{nm}</math></p><p><math>R_{abs} \leq 1.0\% @ 800 - 1550\text{nm}</math></p><p><math>R_{avg} \leq 0.7\% @ 750 - 1550\text{nm}</math></p></div> <p data-bbox="1341 1905 1839 1952">Data outside this range is not guaranteed and is for reference only.</p> <p data-bbox="1472 1967 1709 1988"><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](#).