

TECHSPEC<sup>®</sup> 12mm Dia. x 18mm FL YAG-BBAR Coated, Inked, Double-Convex Lens



YAG-BBAR Coated Double-Convex (DCX) Lenses



Stock **#89-240-INK** [CONTACT US](#)

-

1

+

₹5,085

ADD TO CART

| Volume Pricing |                               |
|----------------|-------------------------------|
| Qty 1-9        | ₹5,085 each                   |
| Qty 10-24      | ₹4,590 each                   |
| Qty 25-99      | ₹4,073 each                   |
| Need More?     | <a href="#">Request Quote</a> |

Product Downloads

General

Type:  
Double-Convex Lens

Physical & Mechanical Properties

Diameter (mm):  
12.00 ±0.025

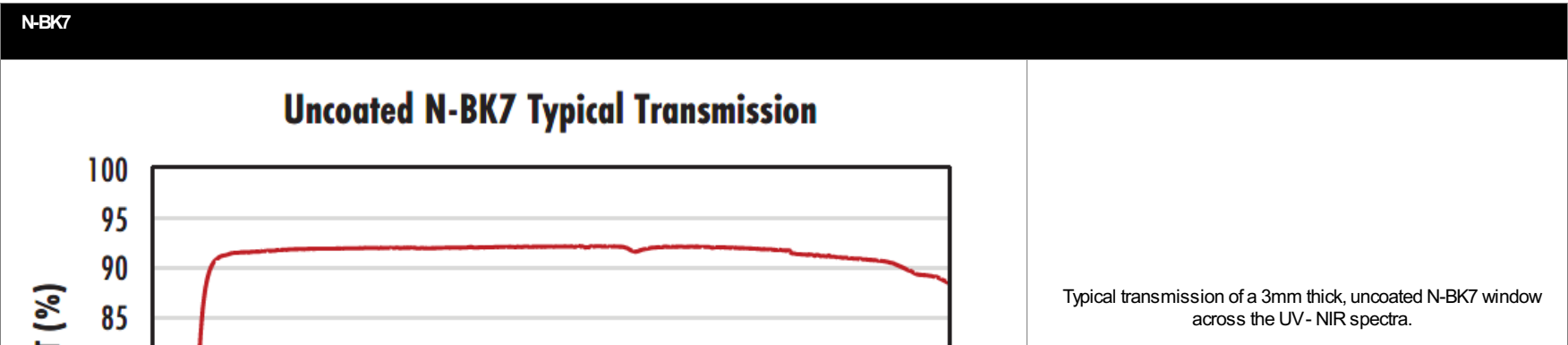
|                                                                                                              |                                             |
|--------------------------------------------------------------------------------------------------------------|---------------------------------------------|
| <1                                                                                                           | Centering (arcmin):                         |
| Protective as needed                                                                                         | Bevel:                                      |
| 3.48                                                                                                         | Center Thickness CT (mm):                   |
| ±0.05                                                                                                        | Center Thickness Tolerance (mm):            |
| 1.42                                                                                                         | Edge Thickness ET (mm):                     |
| 11.00                                                                                                        | Clear Aperture CA (mm):                     |
| Optical Properties                                                                                           |                                             |
| 16.81                                                                                                        | Back Focal Length BFL (mm):                 |
| 18.00                                                                                                        | Effective Focal Length EFL (mm):            |
| YAG-BBAR (500-1100nm)                                                                                        | Coating:                                    |
| R <sub>abs</sub> <0.25% @ 532nm<br>R <sub>abs</sub> <0.25% @ 1064nm<br>R <sub>avg</sub> <1.0% @ 500 - 1100nm | Coating Specification:                      |
| N-BK7                                                                                                        | Substrate: □                                |
| 40-20                                                                                                        | Surface Quality:                            |
| 18.01                                                                                                        | Radius R <sub>1</sub> =R <sub>2</sub> (mm): |
| 1.5                                                                                                          | f/#:                                        |
| 587.6                                                                                                        | Focal Length Specification Wavelength (nm): |
| ±1                                                                                                           | Focal Length Tolerance (%):                 |
| 0.33                                                                                                         | Numerical Aperture NA:                      |
| 350 - 2200                                                                                                   | Wavelength Range (nm):                      |
| Regulatory Compliance                                                                                        |                                             |
| View                                                                                                         | Certificate of Conformance:                 |
| Japan                                                                                                        | Country of Origin:                          |
| Edmund Optics India Private Limited                                                                          | Imported By:                                |

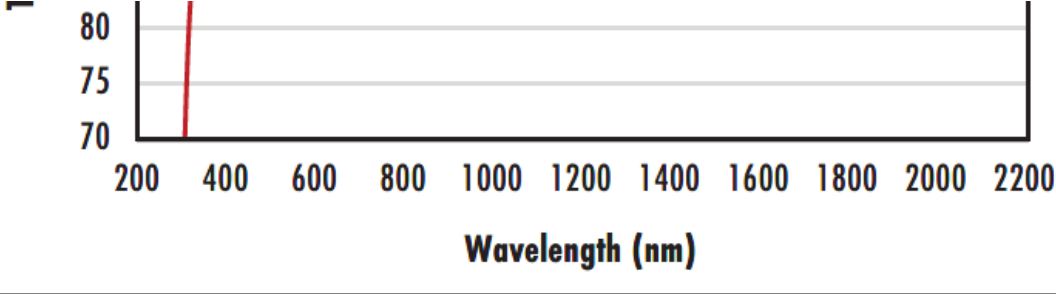
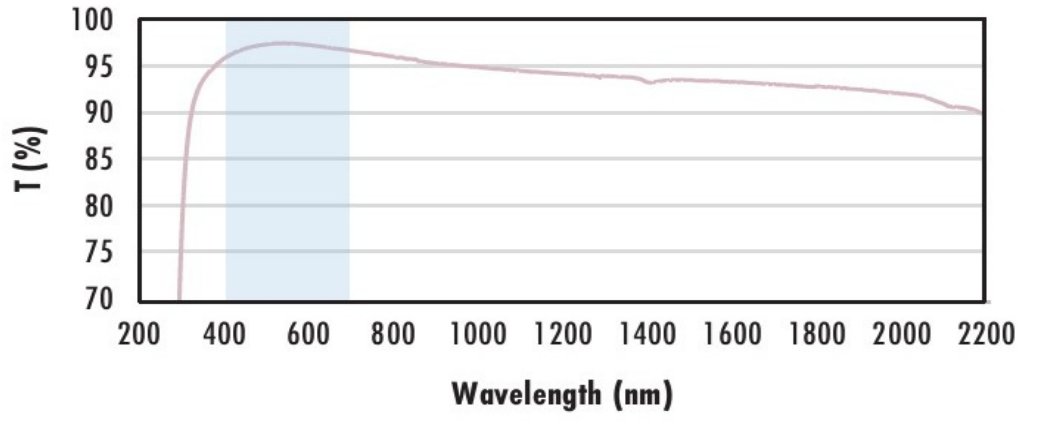
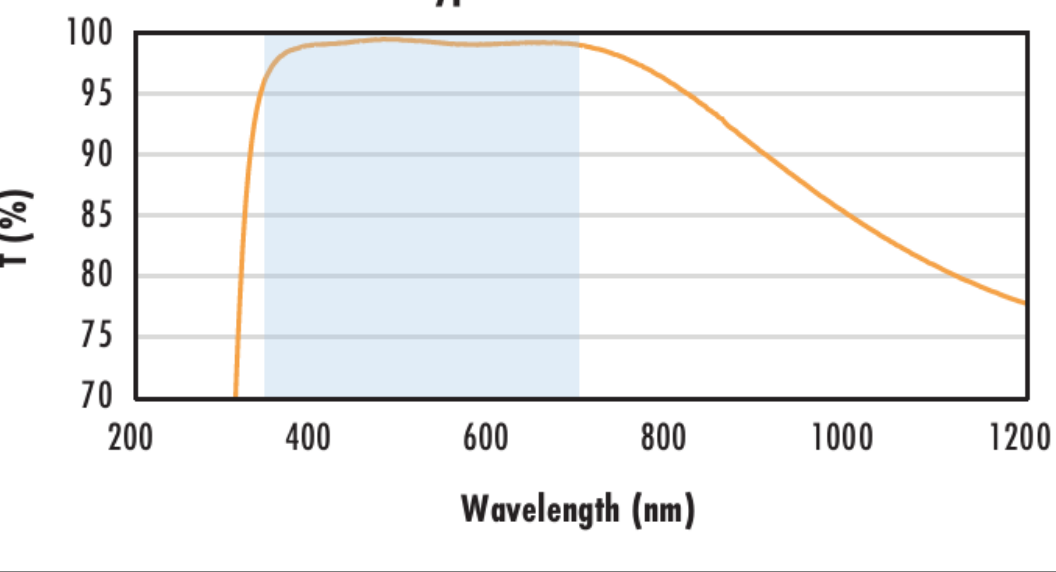
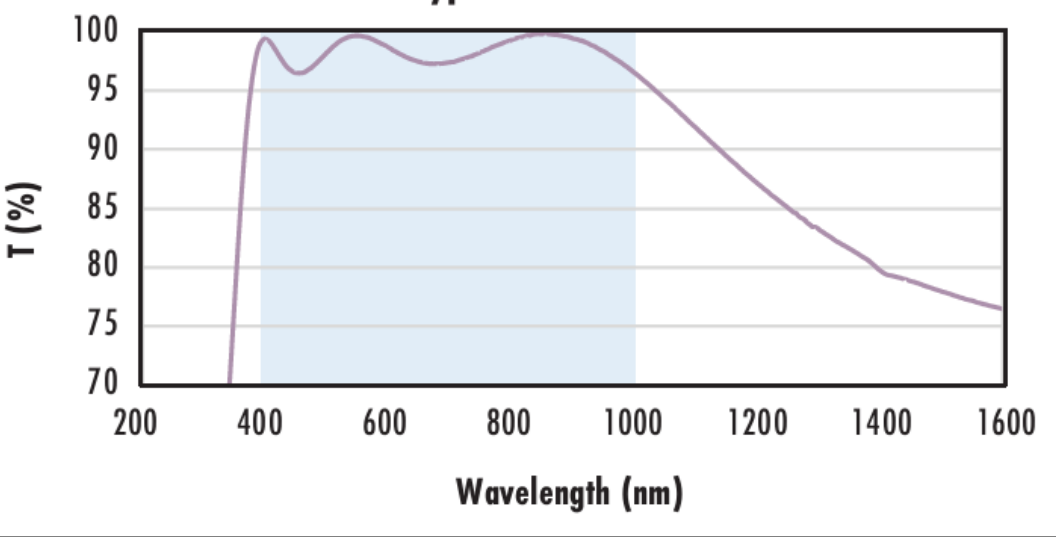
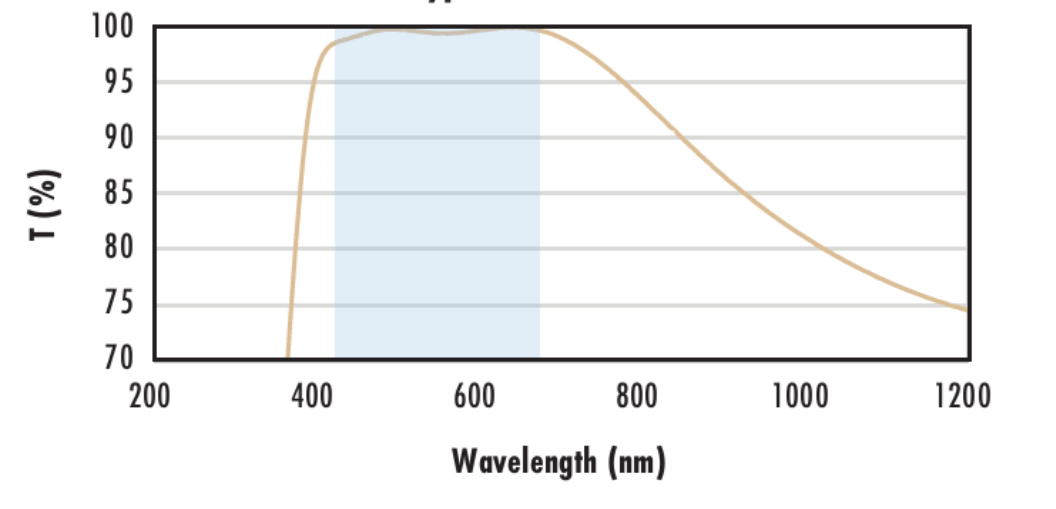
## Product Details

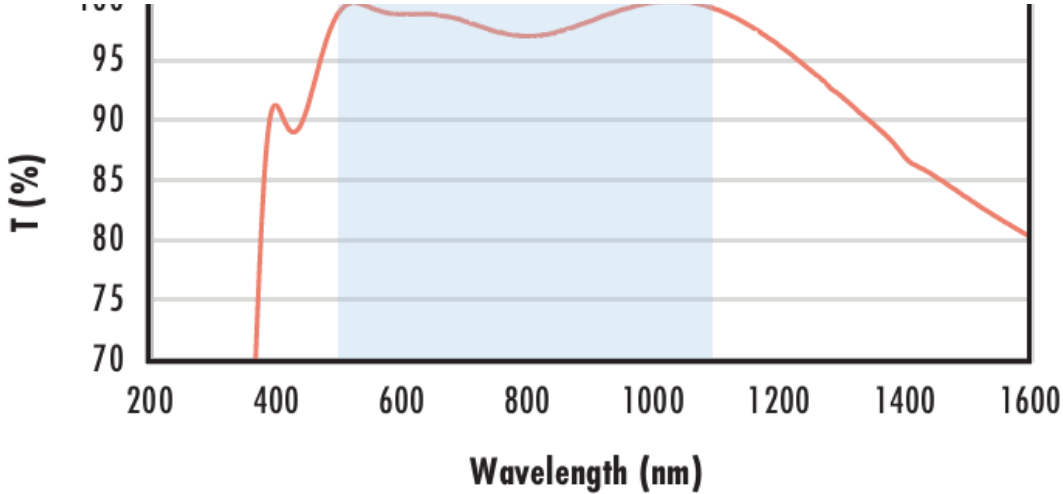
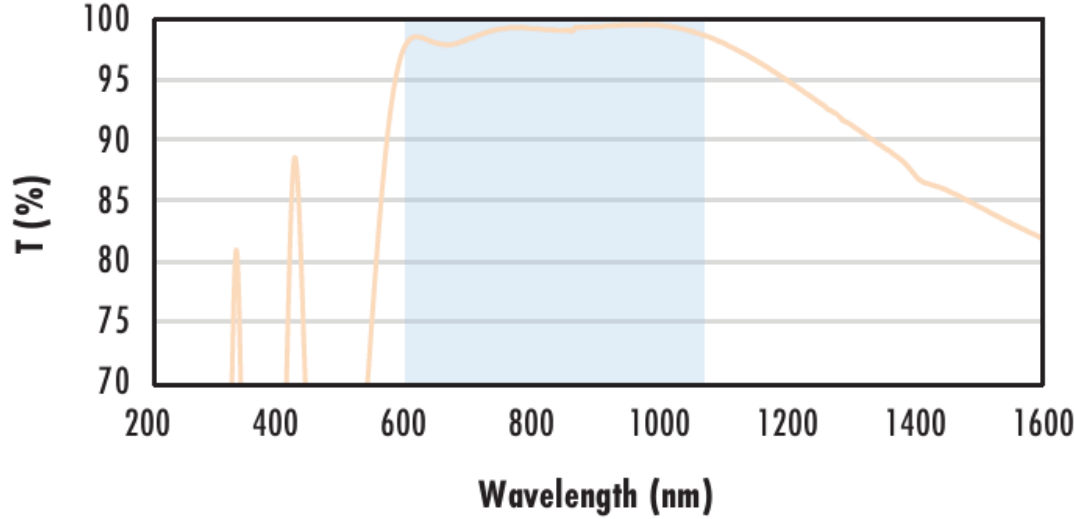
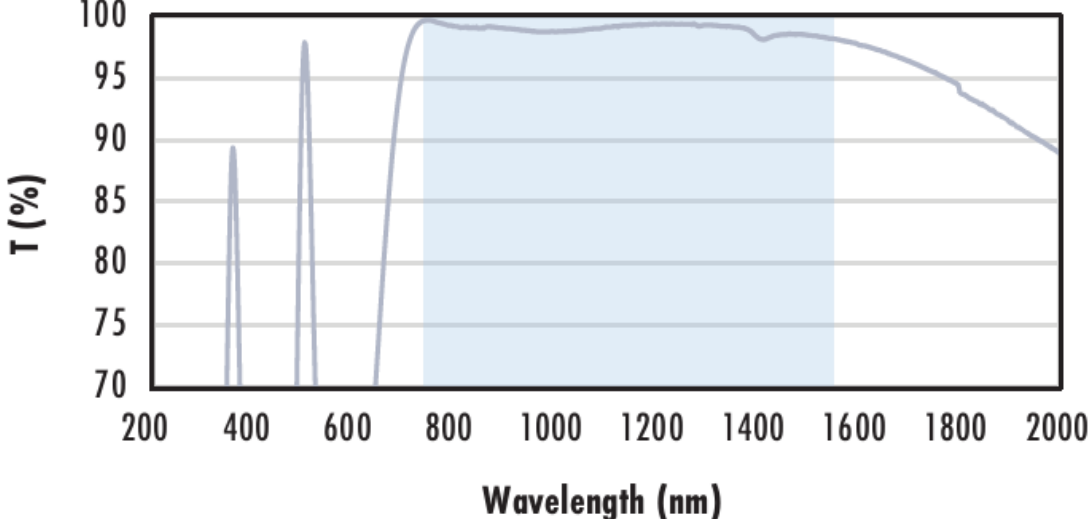
- Optimized for R<0.25% @ 532nm and 1064nm
- Minimize Aberrations Including Spherical and Coma
- UV Fused Silica DCX Lenses Available
- Other Coating Options Available: Uncoated, MgF<sub>2</sub>, VIS 0°, NIR I, NIR II, VIS-EXT, and VIS-NIR

TECHSPEC® YAG-BBAR Coated Double-Convex (DCX) Lenses, also referred to as bi-convex lenses, have two positive, symmetrical faces with equal radii on both sides. These lenses are generally recommended for finite imaging applications with a conjugate ratio (ratio between object distance and image distance) between 0.2 and 5. At a conjugate ratio of 1, aberrations such as spherical aberration, chromatic aberration, coma, and distortion are minimized or cancelled due to the symmetric lens design. TECHSPEC YAG-BBAR Coated Double-Convex Lenses are available in a variety of substrates and coating options for the visible and NIR spectra.

## Technical Information



|                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                                                                                | <a href="#">Click Here to Download Data</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <p data-bbox="588 400 955 489"><b>N-BK7 with MgF<sub>2</sub> Coating</b><br/><b>Typical Transmission</b></p>  | <p data-bbox="1339 489 1843 540">Typical transmission of a 3mm thick N-BK7 window with MgF2 (400-700nm) coating at 0° AOI.</p> <p data-bbox="1339 552 1850 602">The blue shaded region indicates the coating design wavelength range, with the following specification:</p> <p data-bbox="1436 614 1751 641"><math>R_{avg} \leq 1.75\% @ 400 - 700\text{nm (N-BK7)}</math></p> <p data-bbox="1339 652 1839 703">Data outside this range is not guaranteed and is for reference only.</p> <p data-bbox="1474 715 1709 742"><a href="#">Click Here to Download Data</a></p>                                                                                                                                                                                            |
| <p data-bbox="588 914 1018 1003"><b>N-BK7 with VIS-EXT Coating</b><br/><b>Typical Transmission</b></p>      | <p data-bbox="1339 1083 1850 1133">Typical transmission of a 3mm thick N-BK7 window with VIS-EXT (350-700nm) coating at 0° AOI.</p> <p data-bbox="1339 1145 1850 1196">The blue shaded region indicates the coating design wavelength range, with the following specification:</p> <p data-bbox="1478 1207 1709 1234"><math>R_{avg} \leq 0.5\% @ 350 - 700\text{nm}</math></p> <p data-bbox="1339 1246 1839 1297">Data outside this range is not guaranteed and is for reference only.</p> <p data-bbox="1474 1308 1709 1335"><a href="#">Click Here to Download Data</a></p>                                                                                                                                                                                        |
| <p data-bbox="588 1555 1008 1644"><b>N-BK7 with VIS-NIR Coating</b><br/><b>Typical Transmission</b></p>     | <p data-bbox="1339 1670 1850 1721">Typical transmission of a 3mm thick N-BK7 window with VIS-NIR (400-1000nm) coating at 0° AOI.</p> <p data-bbox="1339 1733 1850 1783">The blue shaded region indicates the coating design wavelength range, with the following specification:</p> <p data-bbox="1478 1795 1688 1822"><math>R_{abs} \leq 0.25\% @ 880\text{nm}</math></p> <p data-bbox="1478 1822 1709 1849"><math>R_{avg} \leq 1.25\% @ 400 - 870\text{nm}</math></p> <p data-bbox="1478 1849 1709 1875"><math>R_{avg} \leq 1.25\% @ 890 - 1000\text{nm}</math></p> <p data-bbox="1339 1908 1839 1958">Data outside this range is not guaranteed and is for reference only.</p> <p data-bbox="1474 1970 1709 1997"><a href="#">Click Here to Download Data</a></p> |
| <p data-bbox="588 2175 976 2264"><b>N-BK7 with VIS 0° Coating</b><br/><b>Typical Transmission</b></p>       | <p data-bbox="1339 2309 1843 2359">Typical transmission of a 3mm thick N-BK7 window with VIS 0° (425-675nm) coating at 0° AOI.</p> <p data-bbox="1339 2371 1850 2421">The blue shaded region indicates the coating design wavelength range, with the following specification:</p> <p data-bbox="1478 2433 1709 2460"><math>R_{avg} \leq 0.4\% @ 425 - 675\text{nm}</math></p> <p data-bbox="1339 2472 1839 2522">Data outside this range is not guaranteed and is for reference only.</p> <p data-bbox="1474 2534 1709 2561"><a href="#">Click Here to Download Data</a></p>                                                                                                                                                                                         |
| <p data-bbox="567 2769 1039 2858"><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> |

## 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](#).

## Compatible Mounts