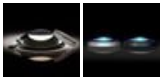


TECHSPEC<sup>®</sup> 15.0mm Dia. x 75.0mm FL, VIS-NIR, Inked, Plano-Convex Lens



Stock **#47-383-INK** **4 In Stock**

☐ [Other Coating Options](#)

-

1

+

€57<sup>17</sup>

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| Volume Pricing |                               |
|----------------|-------------------------------|
| Qty 1-9        | €57,17 each                   |
| Qty 10-24      | €51,24 each                   |
| Qty 25-49      | €45,84 each                   |
| Need More?     | <a href="#">Request Quote</a> |

Prices shown are exclusive of VAT/local taxes

Product Downloads

SPECIFICATIONS

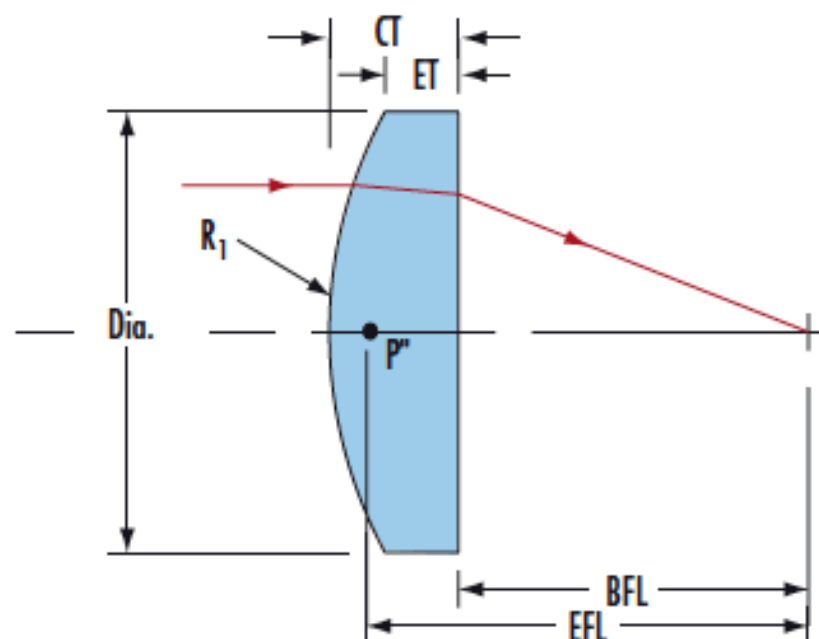
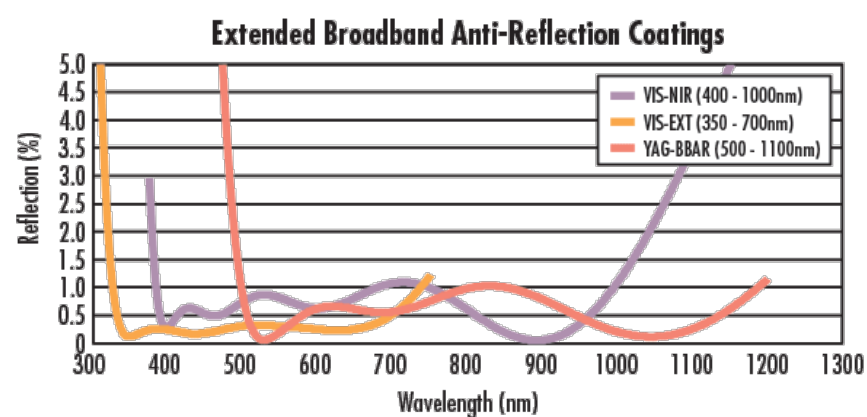
General

|                                                       |  |                                                                                                                    |
|-------------------------------------------------------|--|--------------------------------------------------------------------------------------------------------------------|
| Plano-Convex Lens                                     |  | Type:                                                                                                              |
| Physical & Mechanical Properties                      |  |                                                                                                                    |
| Diameter (mm):                                        |  | 15.00 ±0.025                                                                                                       |
| Centering (arcmin):                                   |  | <1                                                                                                                 |
| Center Thickness CT (mm):                             |  | 1.83 ±0.10                                                                                                         |
| Edge Thickness ET (mm):                               |  | 1.10                                                                                                               |
| Clear Aperture CA (mm):                               |  | 14                                                                                                                 |
| Bevel:                                                |  | Protective as needed                                                                                               |
| Optical Properties                                    |  |                                                                                                                    |
| Effective Focal Length EFL (mm):                      |  | 75.00 @ 587.6nm                                                                                                    |
| Back Focal Length BFL (mm):                           |  | 73.79                                                                                                              |
| Coating:                                              |  | VIS-NIR (400-1000nm)                                                                                               |
| Coating Specification:                                |  | R <sub>abs</sub> ≤0.25% @ 880nm<br>R <sub>avg</sub> ≤1.25% @ 400 - 870nm<br>R <sub>avg</sub> ≤1.25% @ 890 - 1000nm |
| Substrate: <input type="checkbox"/>                   |  | N-BK7                                                                                                              |
| Surface Quality:                                      |  | 40-20                                                                                                              |
| Power (P-V) @ 632.8nm:                                |  | 1.5λ                                                                                                               |
| Irregularity (P-V) @ 632.8nm:                         |  | λ/4                                                                                                                |
| Focal Length Tolerance (%):                           |  | ±1                                                                                                                 |
| Radius R <sub>1</sub> (mm):                           |  | 38.76                                                                                                              |
| f/#:                                                  |  | 5.00                                                                                                               |
| Numerical Aperture NA:                                |  | 0.10                                                                                                               |
| Wavelength Range (nm):                                |  | 400 - 1000                                                                                                         |
| Damage Threshold, By Design: <input type="checkbox"/> |  | 5 J/cm <sup>2</sup> @ 532nm, 10ns                                                                                  |
| Regulatory Compliance                                 |  |                                                                                                                    |
| Certificate of Conformance:                           |  | <a href="#">View</a>                                                                                               |

## PRODUCT DETAILS

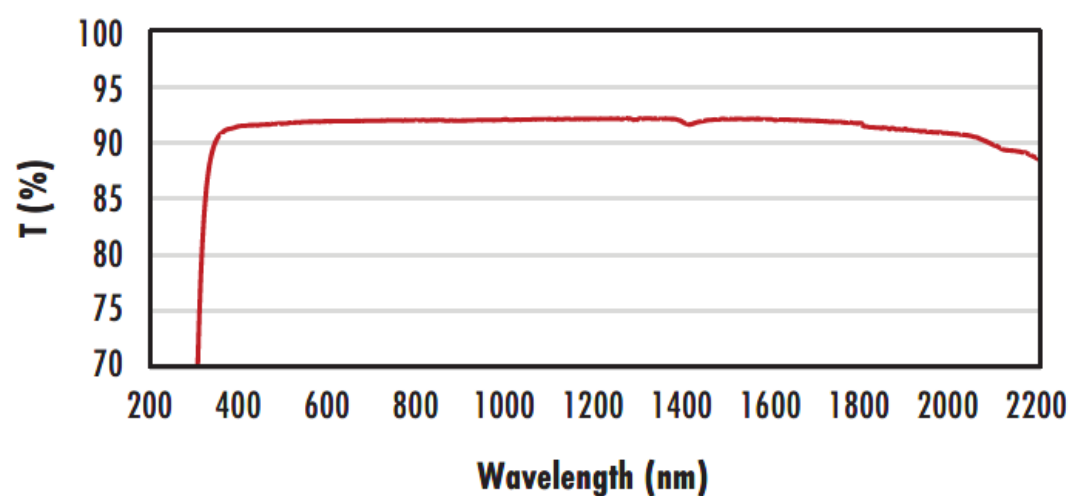
- AR Coated to Provide <1.25% Reflectance per Surface for 400 - 1000nm
  - <0.25% Reflectance @ 880nm
  - Designed for 0° Angle of Incidence
  - Various PCX Coating Options: [Uncoated](#), [MgF<sub>2</sub>](#), [VIS 0°](#), [NIR I](#), [NIR II](#), [VIS-EXT](#), and [YAG-BBAR](#)
- TECHSPEC® VIS-NIR Coated Plano-Convex (PCX) Lenses have a positive focal length, making them ideal for collecting and focusing light in imaging applications. They are also useful in a variety of applications involving emitters, detectors, lasers, and fiber optics. Plano-Convex lenses are ideal for a multitude of optics and photonics applications, including biotech instruments such as DNA sequencers and polymerase chain reaction (PCR) testing platforms. TECHSPEC® VIS-NIR Coated Plano-Convex (PCX) Lenses are available in a wide variety of diameters and focal lengths. Identical designs of these PCX lenses are also offered [uncoated](#) or with broadband anti-reflective (BBAR) coatings, which include [MgF<sub>2</sub>](#), [VIS 0°](#), [NIR I](#), [NIR II](#), [VIS-EXT](#), and [YAG-BBAR](#).
- These coated lenses are optimized for a wide range of optics and photonics applications, including biotech instruments such as DNA sequencers and polymerase chain reaction (PCR) testing platforms.

## TECHNICAL INFORMATION



N-BK7

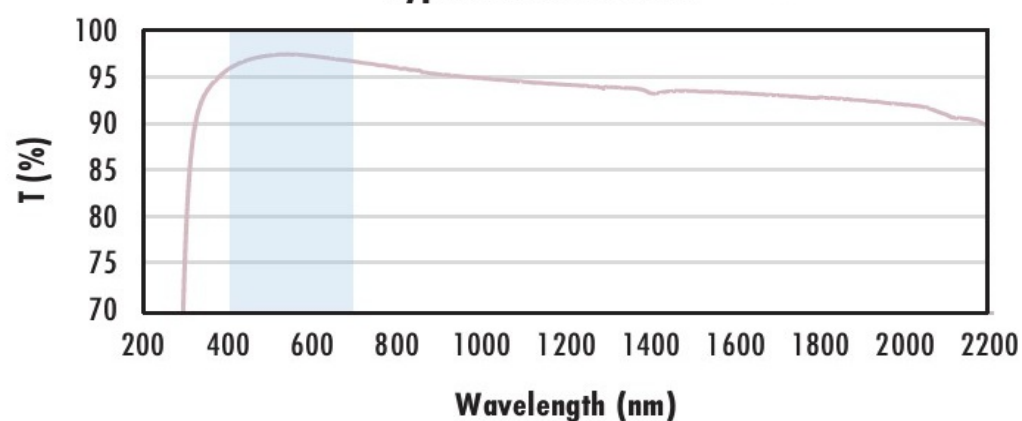
### Uncoated N-BK7 Typical Transmission



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

[Click Here to Download Data](#)

### N-BK7 with $MgF_2$ Coating Typical Transmission



Typical transmission of a 3mm thick N-BK7 window with  $MgF_2$  (400-700nm) coating at  $0^\circ$  AOI.

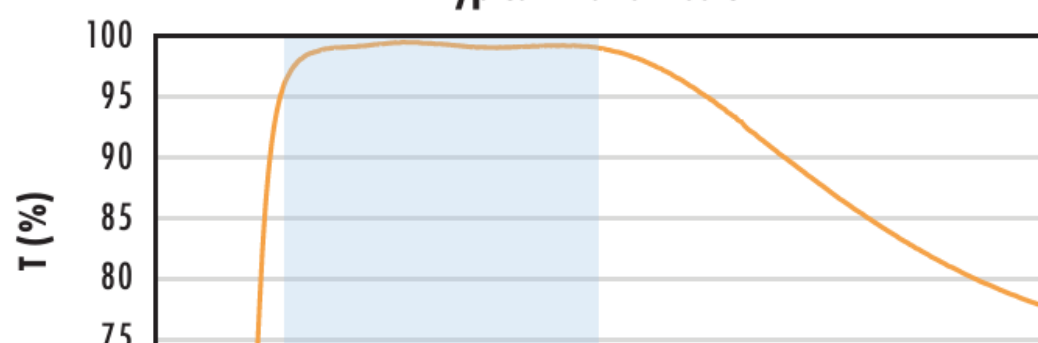
The blue shaded region indicates the coating design wavelength range, with the following specification:

$R_{avg} \leq 1.75\% @ 400 - 700nm$  (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



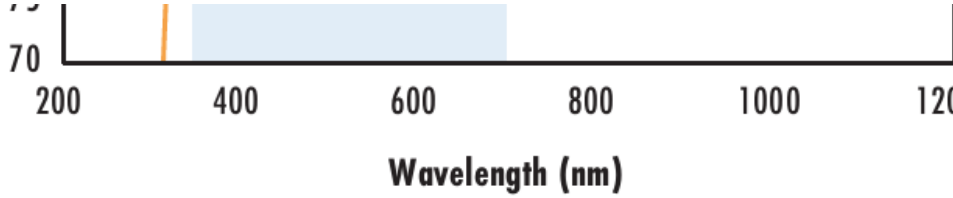
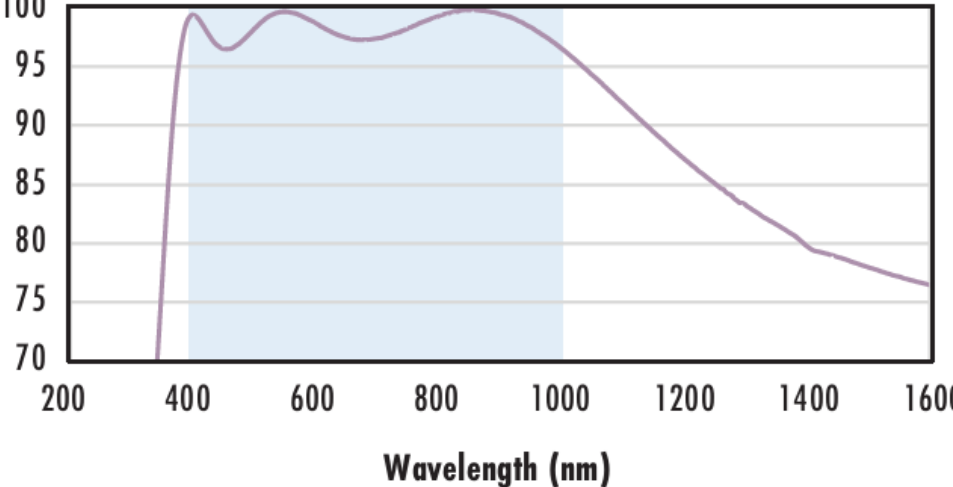
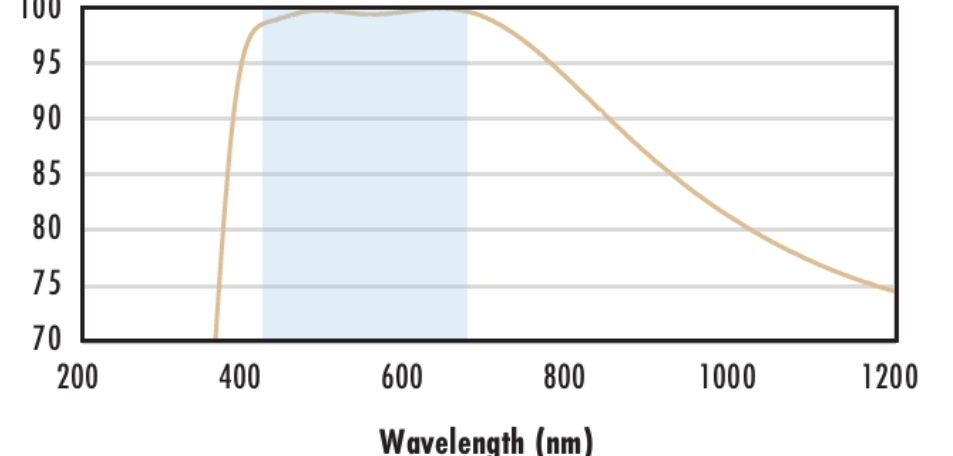
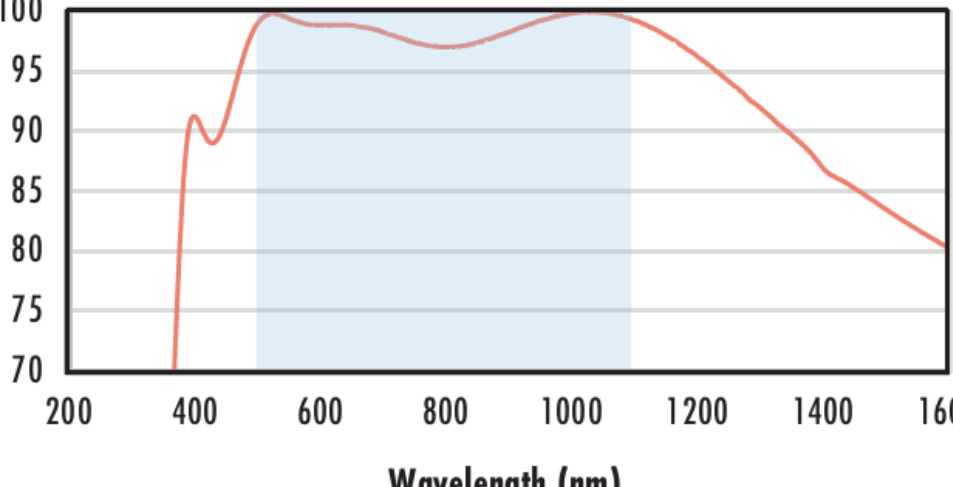
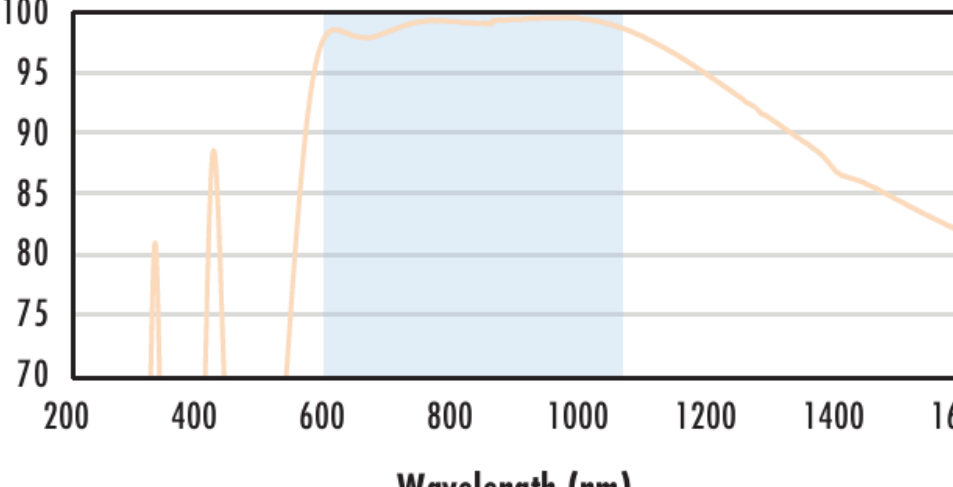
Typical transmission of a 3mm thick N-BK7 window with VIS-EXT (350-700nm) coating at  $0^\circ$  AOI.

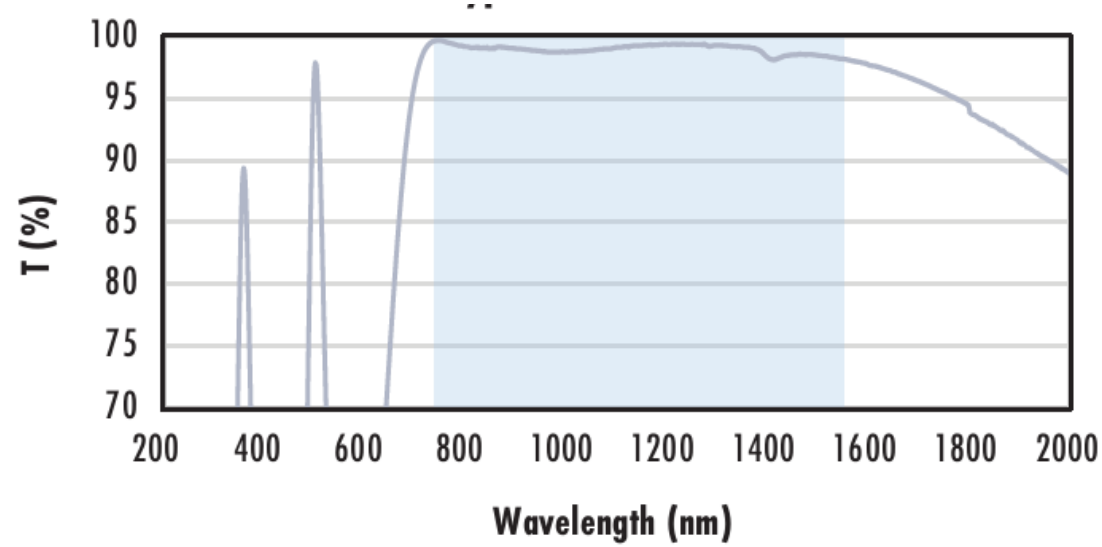
The blue shaded region indicates the coating design wavelength range, with the following specification:

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

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

[Click Here to Download Data](#)

|                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  <p data-bbox="688 201 913 252"><b>Wavelength (nm)</b></p>                                                                                                        | <p data-bbox="1467 68 1709 83"><a href="#">Click Here to Download Data</a></p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| <p data-bbox="585 305 1005 397"><b>N-BK7 with VIS-NIR Coating<br/>Typical Transmission</b></p>  <p data-bbox="688 834 913 872"><b>Wavelength (nm)</b></p>        | <p data-bbox="1329 424 1850 471">Typical transmission of a 3mm thick N-BK7 window with VIS-NIR (400-1000nm) coating at 0° AOI.</p> <p data-bbox="1329 486 1850 534">The blue shaded region indicates the coating design wavelength range, with the following specification:</p> <p data-bbox="1467 549 1711 620"><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-bbox="1339 658 1839 706">Data outside this range is not guaranteed and is for reference only.</p> <p data-bbox="1470 721 1709 742"><a href="#">Click Here to Download Data</a></p>      |
| <p data-bbox="596 928 978 1020"><b>N-BK7 with VIS 0° Coating<br/>Typical Transmission</b></p>  <p data-bbox="688 1427 913 1460"><b>Wavelength (nm)</b></p>     | <p data-bbox="1335 1062 1843 1110">Typical transmission of a 3mm thick N-BK7 window with VIS 0° (425-675nm) coating at 0° AOI.</p> <p data-bbox="1329 1124 1850 1172">The blue shaded region indicates the coating design wavelength range, with the following specification:</p> <p data-bbox="1472 1187 1707 1210"><math>R_{avg} \leq 0.4\% @ 425 - 675\text{nm}</math></p> <p data-bbox="1339 1225 1839 1273">Data outside this range is not guaranteed and is for reference only.</p> <p data-bbox="1470 1288 1709 1308"><a href="#">Click Here to Download Data</a></p>                                                                                                              |
| <p data-bbox="569 1525 1039 1617"><b>N-BK7 with YAG-BBAR Coating<br/>Typical Transmission</b></p>  <p data-bbox="688 2065 913 2104"><b>Wavelength (nm)</b></p> | <p data-bbox="1339 1656 1839 1703">Typical transmission of a 3mm thick N-BK7 window with YAG-BBAR (500-1100nm) coating at 0° AOI.</p> <p data-bbox="1329 1718 1850 1765">The blue shaded region indicates the coating design wavelength range, with the following specification:</p> <p data-bbox="1467 1780 1711 1852"><math>R_{abs} \leq 0.25\% @ 532\text{nm}</math><br/><math>R_{abs} \leq 0.25\% @ 1064\text{nm}</math><br/><math>R_{avg} \leq 1.0\% @ 500 - 1100\text{nm}</math></p> <p data-bbox="1339 1866 1839 1914">Data outside this range is not guaranteed and is for reference only.</p> <p data-bbox="1470 1929 1709 1949"><a href="#">Click Here to Download Data</a></p> |
| <p data-bbox="617 2151 1012 2243"><b>N-BK7 with NIR I Coating<br/>Typical Transmission</b></p>  <p data-bbox="688 2694 913 2733"><b>Wavelength (nm)</b></p>    | <p data-bbox="1339 2320 1839 2368">Typical transmission of a 3mm thick N-BK7 window with NIR I (600 - 1050nm) coating at 0° AOI.</p> <p data-bbox="1329 2383 1850 2430">The blue shaded region indicates the coating design wavelength range, with the following specification:</p> <p data-bbox="1472 2445 1707 2469"><math>R_{avg} \leq 0.5\% @ 600 - 1050\text{nm}</math></p> <p data-bbox="1339 2484 1839 2531">Data outside this range is not guaranteed and is for reference only.</p> <p data-bbox="1470 2546 1709 2567"><a href="#">Click Here to Download Data</a></p>                                                                                                           |
| <p data-bbox="606 2801 1018 2893"><b>N-BK7 with NIR II Coating<br/>Typical Transmission</b></p>                                                                                                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |



Typical transmission of a 3mm thick N-BK7 window with NIR II (750 - 1550nm) coating at 0° AOI.

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

$R_{abs} \leq 1.5\% @ 750 - 800nm$   
 $R_{abs} \leq 1.0\% @ 800 - 1550nm$   
 $R_{avg} \leq 0.7\% @ 750 - 1550nm$

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

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## 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:

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- High-precision surface quality and flatness
- Tight tolerances and complex geometries
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