

TECHSPEC<sup>®</sup> 9mm Dia. x 18mm FL, VIS-NIR, Inked, Double-Convex Lens



Stock **#45-868-INK** [CONTACT US](#)

-

1

+

S\$84<sup>00</sup>

ADD TO CART

| Volume Pricing |                               |
|----------------|-------------------------------|
| Qty 1-9        | <b>S\$84.00</b> each          |
| Qty 10-24      | <b>S\$75.60</b> each          |
| Qty 25-99      | <b>S\$67.55</b> each          |
| Need More?     | <a href="#">Request Quote</a> |

Product Downloads

General

Type:

Double-Convex Lens

Physical & Mechanical Properties

Diameter (mm):

9.00

|                      |                                  |
|----------------------|----------------------------------|
| <1                   | Centering (arcmin):              |
| Protective as needed | Bevel:                           |
| 2.60                 | Center Thickness CT (mm):        |
| ±0.05                | Center Thickness Tolerance (mm): |
| 1.47                 | Edge Thickness ET (mm):          |

|     |                         |
|-----|-------------------------|
| 8.1 | Clear Aperture CA (mm): |
|-----|-------------------------|

Optical Properties

|       |                                  |
|-------|----------------------------------|
| 17.12 | Back Focal Length BFL (mm):      |
| 18.00 | Effective Focal Length EFL (mm): |

|                                                                                                                     |                        |
|---------------------------------------------------------------------------------------------------------------------|------------------------|
| VIS-NIR (400-1000nm)                                                                                                | Coating:               |
| R <sub>abs</sub> ≤0.25% @ 880nm<br>R <sub>avg</sub> ≤1.25% @ 400 - 870 nm<br>R <sub>avg</sub> ≤1.25% @ 890 - 1000nm | Coating Specification: |

|       |                  |
|-------|------------------|
| N-BK7 | Substrate: □     |
| 40-20 | Surface Quality: |

|       |                                             |
|-------|---------------------------------------------|
| 18.15 | Radius R <sub>1</sub> =R <sub>2</sub> (mm): |
| 2.00  | f/#:                                        |

|      |                             |
|------|-----------------------------|
| ±1   | Focal Length Tolerance (%): |
| 0.25 | Numerical Aperture NA:      |

|            |                        |
|------------|------------------------|
| 400 - 1000 | Wavelength Range (nm): |
|------------|------------------------|

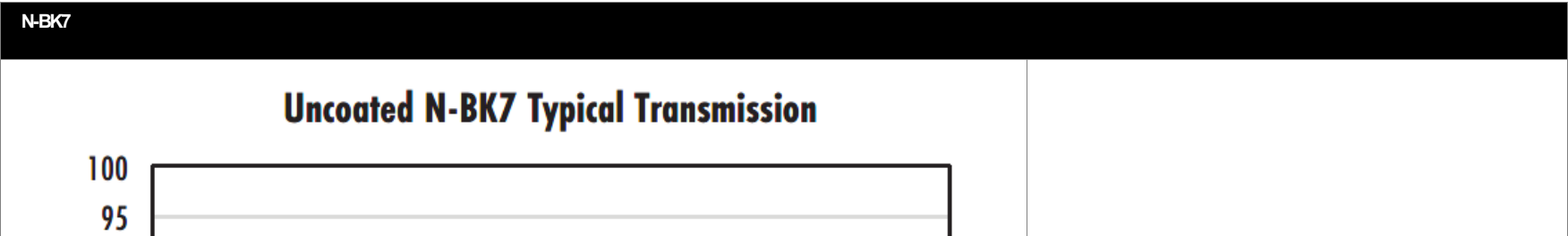
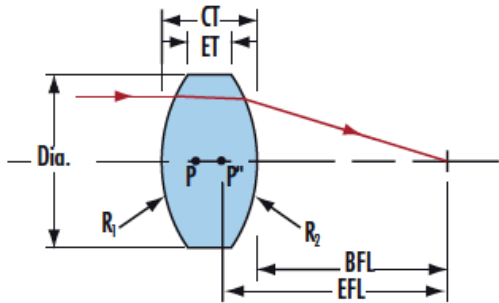
Regulatory Compliance

|      |                             |
|------|-----------------------------|
| View | Certificate of Conformance: |
|------|-----------------------------|

Product Details

- AR Coated to Provide <1.25% Reflectance per Surface for 400 - 1000nm
  - Mnimize 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 [YAG-BBAR](#)
- TECHSPEC® VIS-NIR 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® VIS-NIR Coated Double-Convex Lenses are available in a variety of substrates and coating options for the visible and NIR spectra.

Technical Information



|                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                                                    | <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</b><br/><b>Typical Transmission</b></p>  | <p>Typical transmission of a 3mm thick N-BK7 window with MgF2 (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</b><br/><b>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</b><br/><b>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</b><br/><b>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>                                                                                                                   |



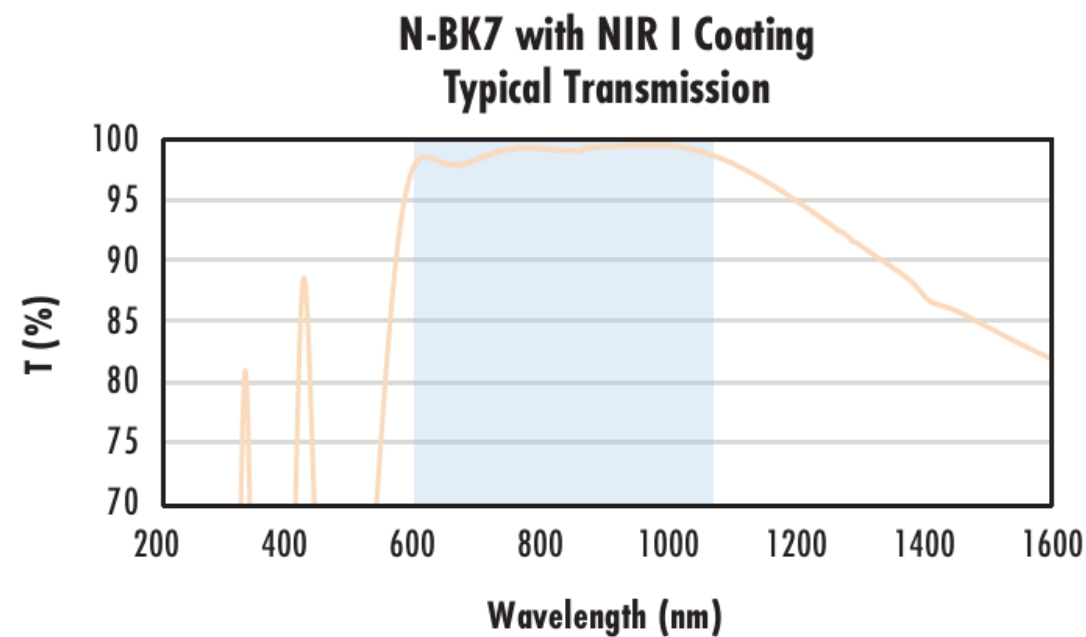
Typical transmission of a 3mm thick N-BK7 window with YAG-BBAR (500-1100nm) coating at 0° AOI.

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

$$R_{\text{abs}} \leq 0.25\% \text{ @ } 532\text{nm}$$
$$R_{\text{abs}} \leq 0.25\% \text{ @ } 1064\text{nm}$$
$$R_{\text{avg}} \leq 1.0\% \text{ @ } 500 - 1100\text{nm}$$

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

[Click Here to Download Data](#)



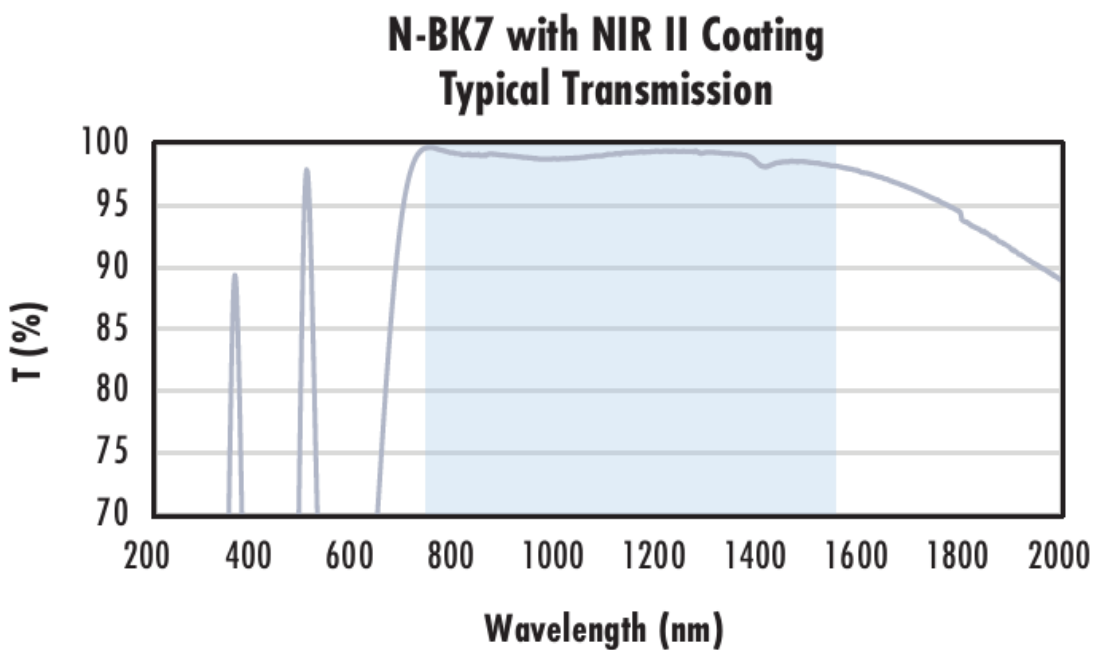
Typical transmission of a 3mm thick N-BK7 window with NIR I (600 - 1050nm) coating at 0° AOI.

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

$$R_{\text{avg}} \leq 0.5\% \text{ @ } 600 - 1050\text{nm}$$

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

[Click Here to Download Data](#)



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:

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

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

[Click Here to Download Data](#)

## 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](#).

## Compatible Mounts