

TECHSPEC<sup>®</sup> 50.0mm Dia. x 175.0mm FL, VIS-EXT, Inked, Plano-Convex Lens



Stock **#88-765-INK** [CONTACT US](#)

☐ [Other Coating Options](#)

-

1

+

A\$141<sup>.60</sup>

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| Volume Pricing |                               |
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| Qty 1-9        | A\$141.60 each                |
| Qty 10-24      | A\$127.20 each                |
| Qty 25-49      | A\$113.60 each                |
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General

Type:  
Plano-Convex Lens

Physical & Mechanical Properties

Diameter (mm):  
50.00 ±0.025

|                      |                           |
|----------------------|---------------------------|
| <1                   | Centering (arcmin):       |
| 9.00 ±0.10           | Center Thickness CT (mm): |
| 5.48                 | Edge Thickness ET (mm):   |
| 49                   | Clear Aperture CA (mm):   |
| Protective as needed | Bevel:                    |

Optical Properties

|                                      |                                                       |
|--------------------------------------|-------------------------------------------------------|
| 175.00 @587.6nm                      | Effective Focal Length EFL (mm):                      |
| 169.05                               | Back Focal Length BFL (mm):                           |
| VIS-EXT (350-700nm)                  | Coating:                                              |
| R <sub>avg</sub> <0.5% @ 350 - 700nm | Coating Specification:                                |
| N-BK7                                | Substrate: <input type="checkbox"/>                   |
| 40-20                                | Surface Quality:                                      |
| 1.5λ                                 | Power (P-V) @ 632.8nm:                                |
| λ/4                                  | Irregularity (P-V) @ 632.8nm:                         |
| ±1                                   | Focal Length Tolerance (%):                           |
| 90.44                                | Radius R <sub>1</sub> (mm):                           |
| 3.5                                  | f/#:                                                  |
| 0.14                                 | Numerical Aperture NA:                                |
| 350 - 700                            | Wavelength Range (nm):                                |
| 5 J/cm² @ 532nm, 10ns                | Damage Threshold, By Design: <input type="checkbox"/> |

Regulatory Compliance

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

## Need different specs or modifications?

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

- Visible Broadband Anti-Reflection Coating with Extended UV Performance
- AR Coated to Provide <0.5% Reflectance per Surface for 350 - 700nm
- Designed for 0° Angle of Incidence
- Various PCX Coating Options: [Uncoated](#), [MgF<sub>2</sub>](#), [VIS 0°](#), [VIS-NIR](#), [NIR I](#), [NIR II](#), and [YAG-BBAR](#)

TECHSPEC® VIS-EXT 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. TECHSPEC® VIS-EXT 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°](#), [VIS-NIR](#), [NIR I](#), [NIR II](#), and [YAG-BBAR](#).

## Technical Information



| N-BK7                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |  |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| <div><h3>Uncoated N-BK7 Typical Transmission</h3><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></div>                                                                                                                                                                                                                                                                                                                                                                                       |  |
| <div><h3>N-BK7 with MgF<sub>2</sub> Coating Typical Transmission</h3><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></div>                                                                                         |  |
| <div><h3>N-BK7 with VIS-EXT Coating Typical Transmission</h3><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></div>                                                                                                                  |  |
| <div><h3>N-BK7 with VIS-NIR Coating Typical Transmission</h3><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></div> |  |



Typical transmission of a 3mm thick N-BK7 window with VIS 0° (425-675nm) coating at 0° AOI.

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

$$R_{\text{avg}} \leq 0.4\% \text{ @ } 425 - 675\text{nm}$$

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 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.

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Typical transmission of a 1mm 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](#)

## Compatible Mounts