

TECHSPEC<sup>®</sup> 20mm Diameter x -40 FL, NIR II, Inked, Plano-Concave Lens



Stock **#67-997-INK** [CONTACT US](#)

[Other Coating Options](#)

-

1

+

A\$96<sup>.80</sup>

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| Volume Pricing |                               |
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| Qty 1-9        | A\$96.80 each                 |
| Qty 10-25      | A\$87.20 each                 |
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Product Downloads

General

Type:  
Plano-Concave Lens

Physical & Mechanical Properties

Diameter (mm):  
20.00 ±0.025

|       |                                  |
|-------|----------------------------------|
| 3.50  | Center Thickness CT (mm):        |
| ±0.10 | Center Thickness Tolerance (mm): |
| <1    | Centering (arcmin):              |
| 19.00 | Clear Aperture CA (mm):          |
| 5.39  | Edge Thickness ET (mm):          |

Optical Properties

|                                                                                                                                                  |                                                       |
|--------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------|
| -40.00                                                                                                                                           | Effective Focal Length EFL (mm):                      |
| N-BK7                                                                                                                                            | Substrate: <input type="checkbox"/>                   |
| 2.00                                                                                                                                             | f/#:                                                  |
| NIR II (750-1550nm)                                                                                                                              | Coating:                                              |
| 750 - 1550                                                                                                                                       | Wavelength Range (nm):                                |
| -42.31                                                                                                                                           | Back Focal Length BFL (mm):                           |
| Coating Specification:<br>R <sub>abs</sub> ≤1.5% @ 750 - 800nm<br>R <sub>abs</sub> ≤1.0% @ 800 - 1550nm<br>R <sub>avg</sub> ≤0.7% @ 750 - 1550nm |                                                       |
| 587.6                                                                                                                                            | Focal Length Specification Wavelength (nm):           |
| ±1.00                                                                                                                                            | Focal Length Tolerance (%):                           |
| -20.67                                                                                                                                           | Radius R <sub>1</sub> (mm):                           |
| 40-20                                                                                                                                            | Surface Quality:                                      |
| 8 J/cm <sup>2</sup> @ 1064nm, 10ns                                                                                                               | Damage Threshold, By Design: <input type="checkbox"/> |
| 1.5λ                                                                                                                                             | Power (P-V) @ 632.8nm:                                |
| λ/4                                                                                                                                              | Irregularity (P-V) @ 632.8nm:                         |

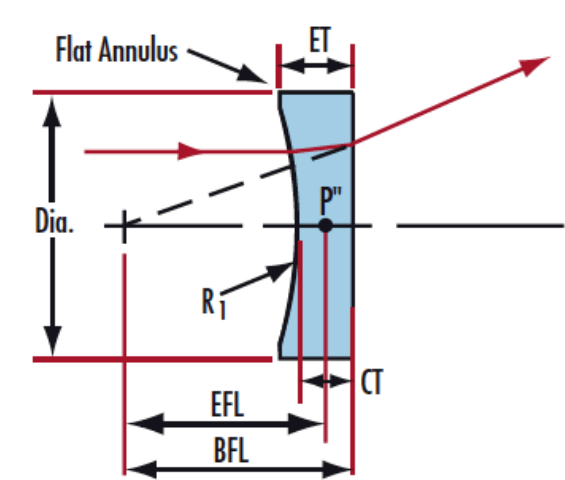
Regulatory Compliance

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

Product Details

- AR Coated to Provide <0.7% Reflectance per Surface for 750 - 1550nm
  - Designed for 0° Angle of Incidence
  - Various Coating Options: [Uncoated](#), [VIS-EXT](#), [MgF<sub>2</sub>](#), [VIS 0°](#), [VIS-NIR](#), [YAG-BBAR](#), and [NIR I](#)
- TECHSPEC® NIR II Coated Plano-Concave (PCV) Lenses are designed to bend parallel input rays to diverge from one another on the lens's output side causing this lens to have a negative focal length. These lenses can be used for balancing aberrations created by other lenses within a system due to their negative spherical aberration. Plano-Concave (PCV) lenses are commonly used in a variety of applications including image reduction, beam expansion and telescopes. TECHSPEC NIR II Coated Plano-Concave (PCV) Lenses offer optimal performance in the 750 to 1550nm range. These lenses are also available [Uncoated](#), [VIS-EXT](#), [MgF<sub>2</sub>](#), [VIS 0°](#), [VIS-NIR](#), [YAG-BBAR](#), or with [NIR I](#) AR coating options.

Technical Information



|                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| N-BK7                                                                                                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <div data-bbox="262 216 1249 736"><h3>Uncoated N-BK7 Typical Transmission</h3></div>                       | <div data-bbox="1339 424 1843 513"><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 data-bbox="262 810 1213 1285"><h3>N-BK7 with MgF<sub>2</sub> Coating Typical Transmission</h3></div> | <div data-bbox="1339 899 1843 1151"><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\% \text{ @ } 400 - 700\text{nm (N-BK7)}</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 data-bbox="262 1329 1249 1908"><h3>N-BK7 with VIS-EXT Coating Typical Transmission</h3></div>       | <div data-bbox="1339 1492 1843 1745"><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\% \text{ @ } 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 data-bbox="262 1973 1234 2531"><h3>N-BK7 with VIS-NIR Coating Typical Transmission</h3></div>       | <div data-bbox="1339 2086 1843 2412"><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\% \text{ @ } 880\text{nm}</math><br/><math>R_{avg} \leq 1.25\% \text{ @ } 400 - 870\text{nm}</math><br/><math>R_{avg} \leq 1.25\% \text{ @ } 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> |
| <div data-bbox="262 2591 1171 2887"><h3>N-BK7 with VIS 0° Coating Typical Transmission</h3></div>        | <div data-bbox="1339 2724 1843 2887"><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\% \text{ @ } 425 - 675\text{nm}</math></p><p>Data outside this range is not guaranteed and is for reference only.</p></div>                                                                                                                                                                                       |

|                                                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|---------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                                           | <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 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\% @ 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 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 - 1050\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 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 - 800\text{nm}</math><br/><math>R_{abs} \leq 1.0\% @ 800 - 1550\text{nm}</math><br/><math>R_{avg} \leq 0.7\% @ 750 - 1550\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> |

## 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

