

TECHSPEC<sup>®</sup> 9.0mm Diameter x -18 FL, NIR II Inked, Plano-Concave Lens



Stock **#67-989-INK** [CONTACT US](#)  
[Other Coating Options](#)

-

1

+

£45<sup>00</sup>

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| Volume Pricing |                               |
|----------------|-------------------------------|
| Qty 1-9        | £45.60 each                   |
| Qty 10-25      | £40.80 each                   |
| Qty 26-49      | £36.60 each                   |
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 Prices shown are exclusive of VAT/local taxes

Product Downloads

General

Plano-Concave Lens

Type:

Physical & Mechanical Properties

|             |                                  |
|-------------|----------------------------------|
| 9.00 ±0.025 | Diameter (mm):                   |
| 2.25        | Center Thickness CT (mm):        |
| ±0.05       | Center Thickness Tolerance (mm): |
| <1          | Centering (arcmin):              |
| 8.10        | Clear Aperture CA (mm):          |
| 2.89        | Edge Thickness ET (mm):          |

|                                                                                                                                                  |                                                       |
|--------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------|
| Optical Properties                                                                                                                               |                                                       |
| -18.00                                                                                                                                           | Effective Focal Length EFL (mm):                      |
| N-SF11                                                                                                                                           | Substrate: <input type="checkbox"/>                   |
| 2.00                                                                                                                                             | f/#:                                                  |
| NIR II (750-1550nm)                                                                                                                              | Coating:                                              |
| 750 - 1550                                                                                                                                       | Wavelength Range (nm):                                |
| -19.26                                                                                                                                           | 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 (%):                           |
| -14.12                                                                                                                                           | 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: |

## 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

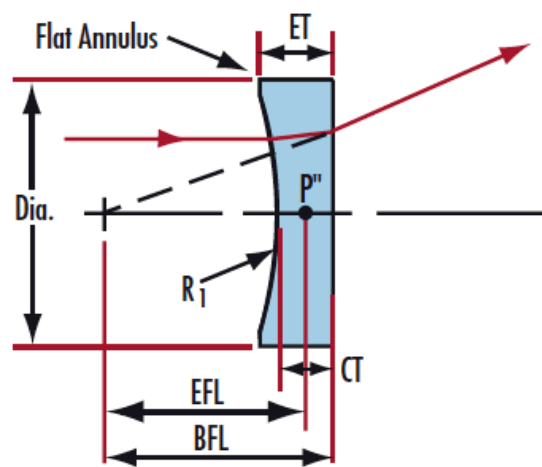
Learn more about our [custom manufacturing capabilities](#) or submit an inquiry [here](#).

## Product Details

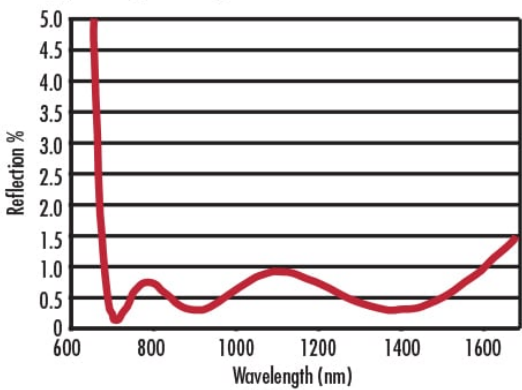
- AR Coated to Provide <0.7% Reflectance per Surface for 750 - 1550nm
- Designed for 0° Angle of Incidence
- Various Coating Options: [Uncoated](#), [VIS-EXT](#), [MgF<sub>2</sub>](#), [VIS 0°](#), [VIS-NIR](#), [YAG-BBAR](#), and [NIR I](#)

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.

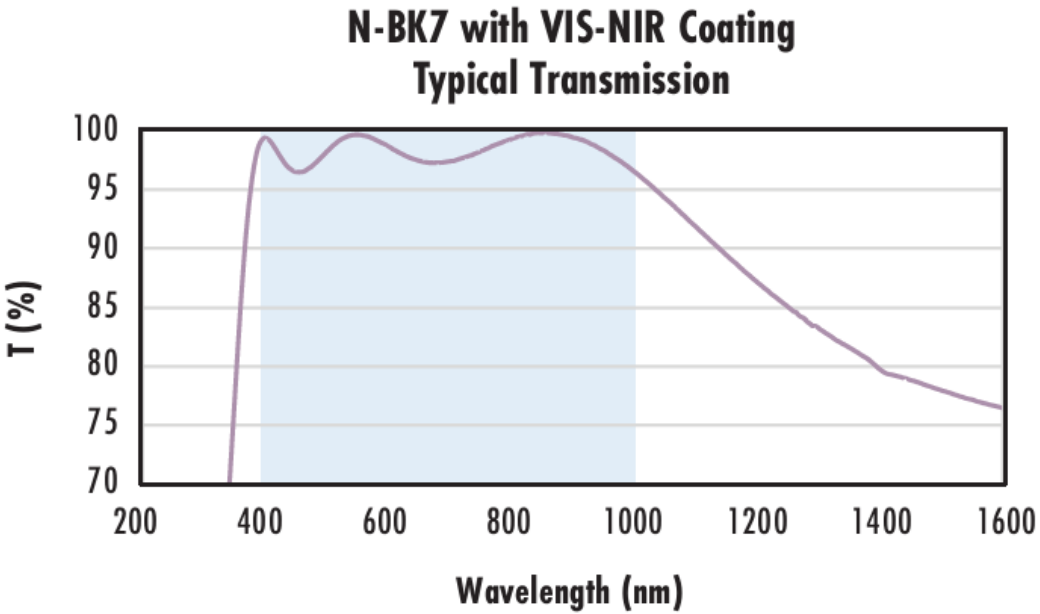
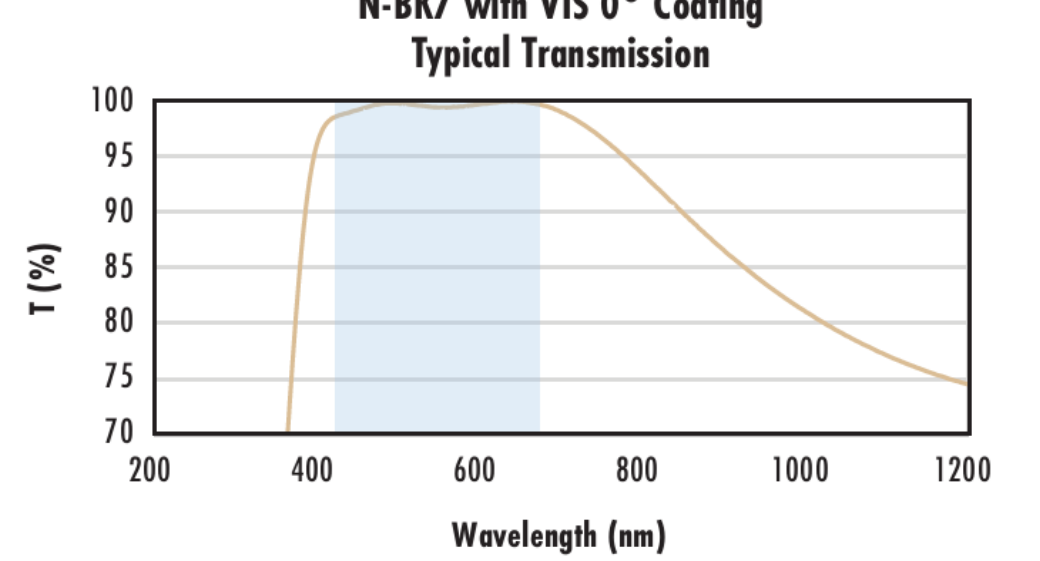
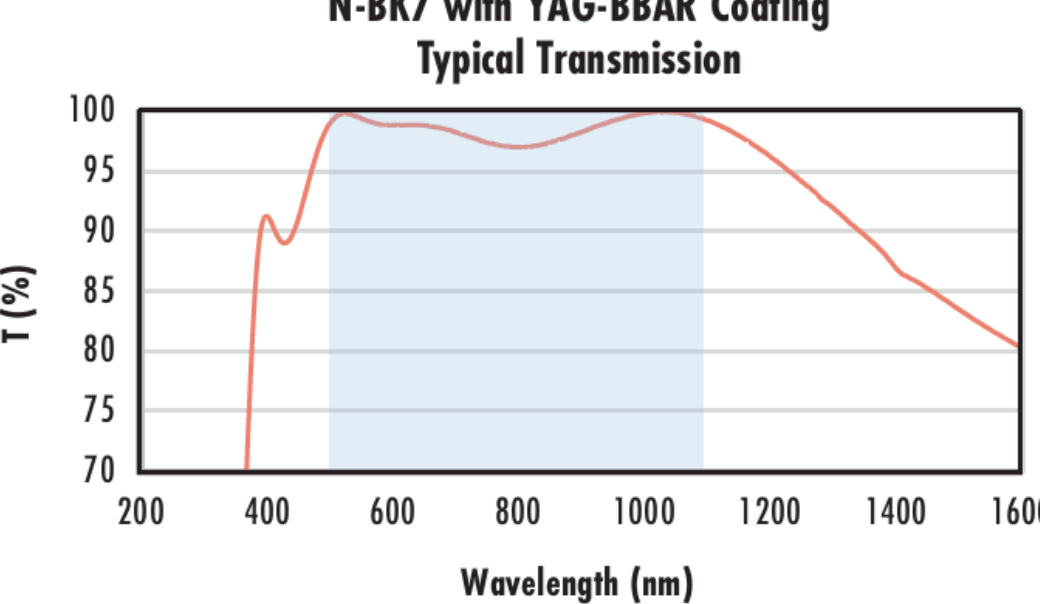
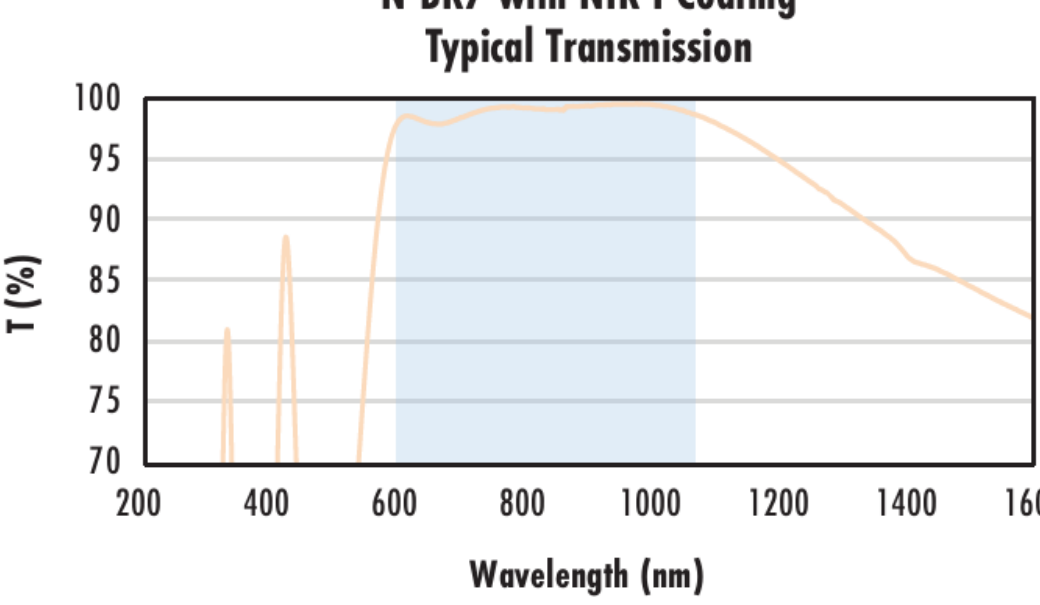
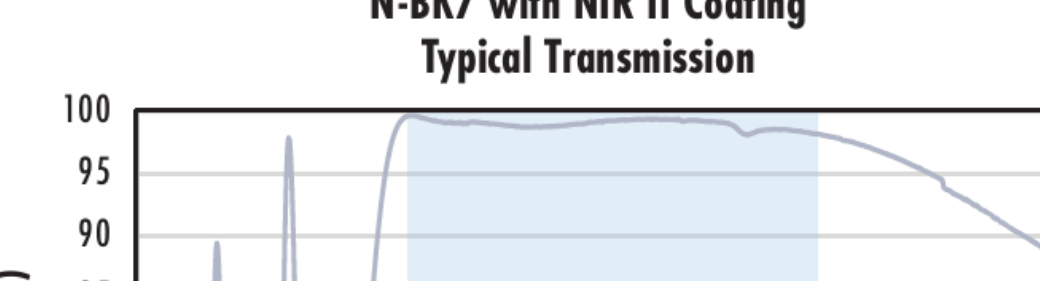
## Technical Information

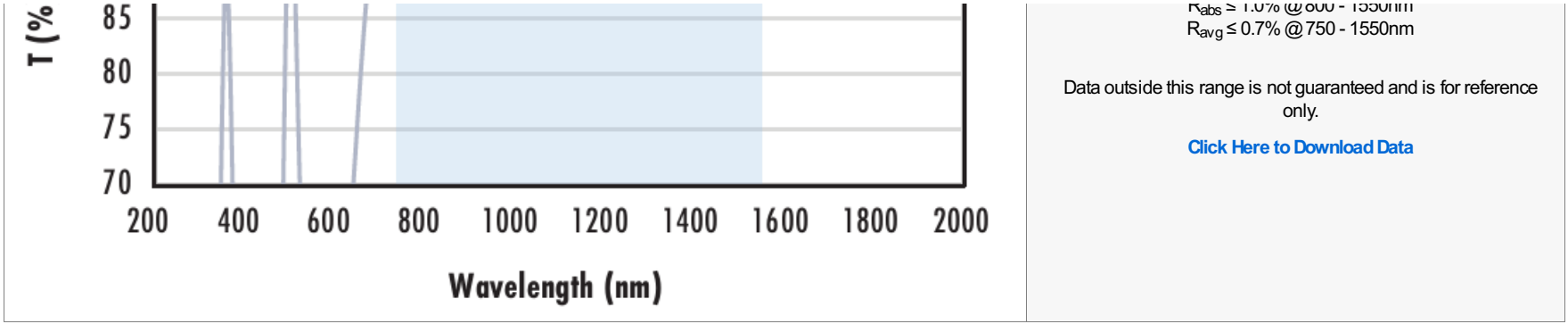


**NIR II Coating**  
 $R_{avg} \leq 0.7\%$  @ 750 - 1550nm,  $R_{abs} \leq 1.0\%$  @ 800 - 1550nm  
 Typ. Energy Density Limit: 8 J/cm<sup>2</sup> @ 1064nm, 10ns



| N-BK7                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                         |
|-----------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p><b>Uncoated N-BK7 Typical Transmission</b></p>                     | <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 Typical Transmission</b></p> | <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\%</math> @ 400 - 700nm (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 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\%</math> @ 350 - 700nm</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 data-bbox="262 121 1234 694"><h3>N-BK7 with VIS-NIR Coating<br/>Typical Transmission</h3></div>      | <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 data-bbox="262 765 1234 1288"><h3>N-BK7 with VIS 0° Coating<br/>Typical Transmission</h3></div>     | <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>                                                                                                                   |
| <div data-bbox="262 1359 1234 1923"><h3>N-BK7 with YAG-BBAR Coating<br/>Typical Transmission</h3></div> | <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>      |
| <div data-bbox="262 1997 1234 2561"><h3>N-BK7 with NIR I Coating<br/>Typical Transmission</h3></div>    | <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>                                                                                                                |
| <div data-bbox="262 2635 1234 2899"><h3>N-BK7 with NIR II Coating<br/>Typical Transmission</h3></div>   | <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 1.5\% @ 800 - 1550\text{nm}</math></p>                                                                                                                                                                                     |



Compatible Mounts

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