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TECHSPEC<sup>®</sup> 40.0mm Dia. x 100.0mm FL, NIR II Coated, Plano-Convex Lens



Stock **#33-375** 4 In Stock

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-

1

+

€67<sup>.50</sup>

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| Qty 1-9        | €67,50 each                   |
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General

Plano-Convex Lens

Type:

Physical & Mechanical Properties

|                      |                           |
|----------------------|---------------------------|
| 40.00 +0.0/-0.025    | Diameter (mm):            |
| <1                   | Centering (arcmin):       |
| 7.00 ±0.10           | Center Thickness CT (mm): |
| 2.97                 | Edge Thickness ET (mm):   |
| 39                   | Clear Aperture CA (mm):   |
| Protective as needed | Bevel:                    |

|                                                                                                                        |                                  |
|------------------------------------------------------------------------------------------------------------------------|----------------------------------|
| Optical Properties                                                                                                     |                                  |
| 100.00 @ 587.6nm                                                                                                       | Effective Focal Length EFL (mm): |
| 95.39                                                                                                                  | Back Focal Length BFL (mm):      |
| NIR II (750-1550nm)                                                                                                    | Coating:                         |
| 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 | Coating Specification:           |
| N-BK7                                                                                                                  | Substrate: □                     |
| 40-20                                                                                                                  | Surface Quality:                 |
| 1.5λ                                                                                                                   | Power (P-V) @ 632.8nm:           |
| λ/4                                                                                                                    | Irregularity (P-V) @ 632.8nm:    |
| ±1                                                                                                                     | Focal Length Tolerance (%):      |
| 51.68                                                                                                                  | Radius R <sub>1</sub> (mm):      |
| 2.5                                                                                                                    | f/#:                             |
| 0.20                                                                                                                   | Numerical Aperture NA:           |
| 750 - 1550                                                                                                             | Wavelength Range (nm):           |
| 8 J/cm² @ 1064nm, 10ns                                                                                                 | Damage Threshold, Reference: □   |

|                       |                             |
|-----------------------|-----------------------------|
| Regulatory Compliance |                             |
| Compliant             | RoHS 2015:                  |
| View                  | Certificate of Conformance: |
| Compliant             | Reach 235:                  |

## Product Details

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

TECHSPEC® NIR II Coated Plano-Convex 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® NIR II Coated Plano-Convex 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](#), [VIS-EXT](#), and [YAG-BBAR](#).

## Technical Information



| N-BK7                                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                     |
|----------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <div><p><b>Uncoated N-BK7 Typical Transmission</b></p></div>                     | <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><p><b>N-BK7 with MgF<sub>2</sub> Coating Typical Transmission</b></p></div> | <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> |
| <div><p><b>N-BK7 with VIS-EXT Coating Typical Transmission</b></p></div>         | <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><p><b>N-BK7 with VIS-NIR Coating Typical Transmission</b></p></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\%</math> @ 880nm<br/><math>R_{avg} \leq 1.25\%</math> @ 400 - 870nm<br/><math>R_{avg} \leq 1.25\%</math> @ 890 - 1000nm</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\%</math> @ 425 - 675nm</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 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\%</math> @ 532nm<br/><math>R_{abs} \leq 0.25\%</math> @ 1064nm<br/><math>R_{avg} \leq 1.0\%</math> @ 500 - 1100nm</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\%</math> @ 600 - 1050nm</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\%</math> @ 750 - 800nm<br/><math>R_{abs} \leq 1.0\%</math> @ 800 - 1550nm<br/><math>R_{avg} \leq 0.7\%</math> @ 750 - 1550nm</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> |

|                 |     |     |     |      |      |      |      |      |      |  |
|-----------------|-----|-----|-----|------|------|------|------|------|------|--|
| 200             | 400 | 600 | 800 | 1000 | 1200 | 1400 | 1600 | 1800 | 2000 |  |
| Wavelength (nm) |     |     |     |      |      |      |      |      |      |  |

## 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