

TECHSPEC<sup>®</sup> 12mm Diameter x -48 FL, NIR II Inked, Plano-Concave Lens



Stock **#67-995-INK** [CONTACT US](#)  
[Other Coating Options](#)

-

1

+

S\$82<sup>.60</sup>

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| Volume Pricing |                               |
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| Qty 1-9        | <b>S\$82.60</b> each          |
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SPECIFICATIONS

General

Type:  
Plano-Concave Lens

| Physical & Mechanical Properties                                                                                                                 |                                                       |
|--------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------|
| 12.00 ±0.025                                                                                                                                     | Diameter (mm):                                        |
| 3.50                                                                                                                                             | Center Thickness CT (mm):                             |
| ±0.05                                                                                                                                            | Center Thickness Tolerance (mm):                      |
| <1                                                                                                                                               | Centering (arcmin):                                   |
| 11.00                                                                                                                                            | Clear Aperture CA (mm):                               |
| 4.12                                                                                                                                             | Edge Thickness ET (mm):                               |
| Optical Properties                                                                                                                               |                                                       |
| -48.00                                                                                                                                           | Effective Focal Length EFL (mm):                      |
| N-BK7                                                                                                                                            | Substrate: <input type="checkbox"/>                   |
| 4.00                                                                                                                                             | f/#:                                                  |
| NIR II (750-1550nm)                                                                                                                              | Coating:                                              |
| 750 - 1550                                                                                                                                       | Wavelength Range (nm):                                |
| -50.31                                                                                                                                           | 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 (%):                           |
| -24.81                                                                                                                                           | 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

### Uncoated N-BK7 Typical Transmission



Typical transmission of a 3mm thick, uncoated N-BK7 window across the UV - NIR spectra.

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### N-BK7 with MgF<sub>2</sub> Coating Typical Transmission



Typical transmission of a 3mm thick N-BK7 window with MgF<sub>2</sub> (400-700nm) coating at 0° AOI.

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

$R_{avg} \leq 1.75\% @ 400 - 700\text{nm}$  (N-BK7)

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

[Click Here to Download Data](#)

### N-BK7 with VIS-EXT Coating Typical Transmission



Typical transmission of a 3mm thick N-BK7 window with VIS-EXT (350-700nm) coating at 0° AOI.

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

$R_{avg} \leq 0.5\% @ 350 - 700\text{nm}$

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

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### N-BK7 with VIS-NIR Coating Typical Transmission



Typical transmission of a 3mm thick N-BK7 window with VIS-NIR (400-1000nm) coating at 0° AOI.

The blue shaded region indicates the coating design wavelength



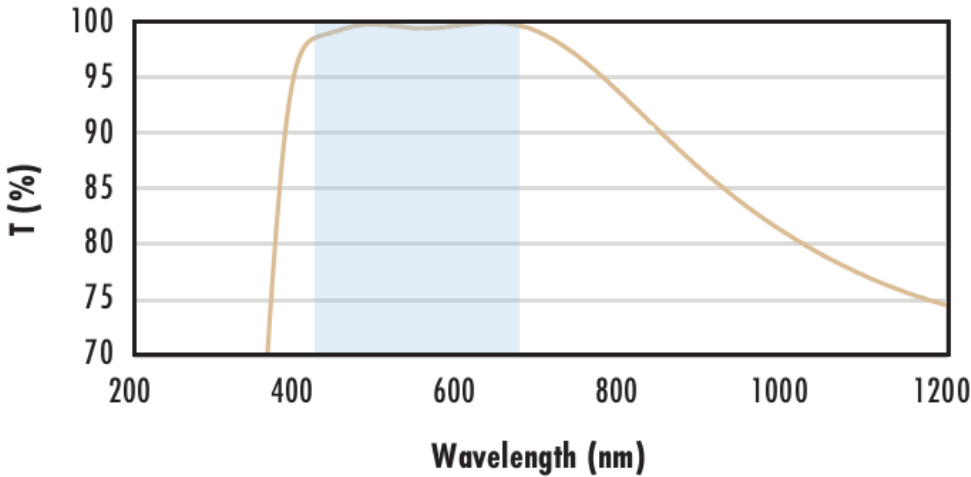
The blue shaded region indicates the coating design wavelength range, with the following specification:

$R_{abs} \leq 0.25\% @ 880\text{nm}$   
 $R_{avg} \leq 1.25\% @ 400 - 870\text{nm}$   
 $R_{avg} \leq 1.25\% @ 890 - 1000\text{nm}$

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

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**N-BK7 with VIS 0° Coating  
Typical Transmission**



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

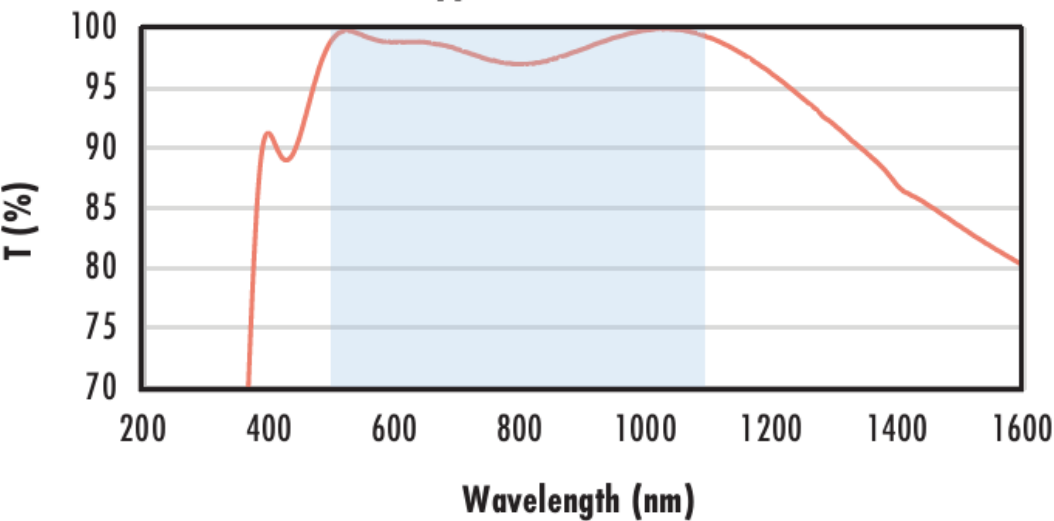
The blue shaded region indicates the coating design wavelength range, with the following specification:

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

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

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**N-BK7 with YAG-BBAR Coating  
Typical Transmission**



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

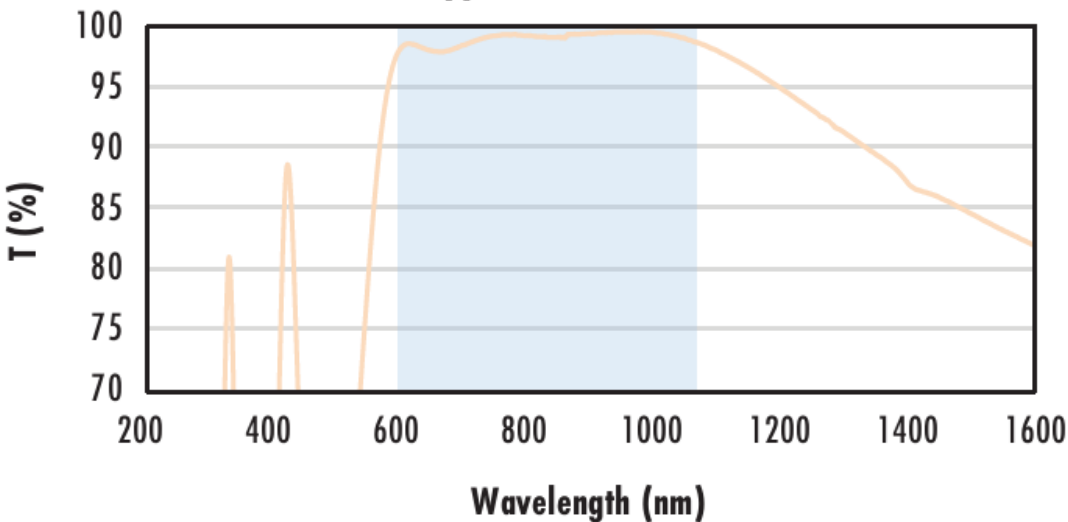
The blue shaded region indicates the coating design wavelength range, with the following specification:

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

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

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**N-BK7 with NIR I Coating  
Typical Transmission**



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

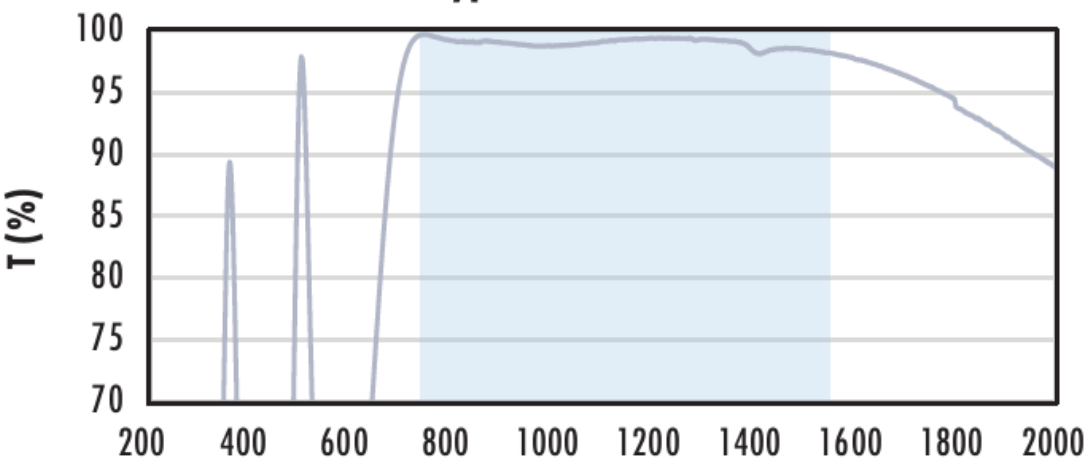
The blue shaded region indicates the coating design wavelength range, with the following specification:

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

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

[Click Here to Download Data](#)

**N-BK7 with NIR II Coating  
Typical Transmission**



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:

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

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

[Click Here to Download Data](#)

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

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COMPATIBLE MOUNTS

