

**TECHSPEC®**

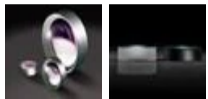
# 6mm Diameter x -18 FL, NIR II, Inked, Plano-Concave Lens



Stock #67-986-INK [CONTACT US](#) [Other Coating Options](#)

1 C\$77<sup>.70</sup>

**ADD TO CART**



Volume Pricing	
Qty 1-9	C\$77.70 each
Qty 10-25	C\$69.65 each
Qty 26-49	C\$62.30 each
Need More?	<a href="#">Request Quote</a>

Product Downloads	
STEP:stp	Curve:pdf
PDF Drawing:pdf	
ISO 10110 Drawing	
IGES:igs	Curve (xlsx):xlsx
Zemax:zar	Zemax:zmx
eDrawing:eprt	Code V:seq
EO Spec Sheet	

General	
<b>Type:</b>	Plano-Concave Lens
Physical & Mechanical Properties	
<b>Diameter (mm):</b>	6.00 ±0.025
<b>Center Thickness CT (mm):</b>	2.00
<b>Center Thickness Tolerance (mm):</b>	±0.05
<b>Centering (arcmin):</b>	<1
<b>Clear Aperture CA (mm):</b>	5.40
<b>Edge Thickness ET (mm):</b>	2.4
Optical Properties	
<b>Effective Focal Length EFL (mm):</b>	-18.00
<b>Substrate:</b>	<a href="#">N-BK7</a>
<b>f/#:</b>	3.00
<b>Coating:</b>	NIR II (750-1550nm)
<b>Wavelength Range (nm):</b>	750 - 1550
<b>Back Focal Length BFL (mm):</b>	-19.32
<b>Coating Specification:</b>	R <sub>abs</sub> ≤1.5% @ 750 - 800nm R <sub>abs</sub> ≤1.0% @ 800 - 1550nm R <sub>avg</sub> ≤0.7% @ 750 - 1550nm
<b>Focal Length Specification Wavelength (nm):</b>	587.6
<b>Focal Length Tolerance (%):</b>	±1.00
<b>Radius R<sub>1</sub> (mm):</b>	-9.30

<b>Surface Quality:</b>	40-20	<b>Damage Threshold, By Design:</b> ⓘ	8 J/cm <sup>2</sup> @ 1064nm, 10ns
<b>Power (P-V) @ 632.8nm:</b>	1.5λ	<b>Irregularity (P-V) @ 632.8nm:</b>	λ/4

## Regulatory Compliance

Certificate of Conformance: [View](#)

## 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](#).

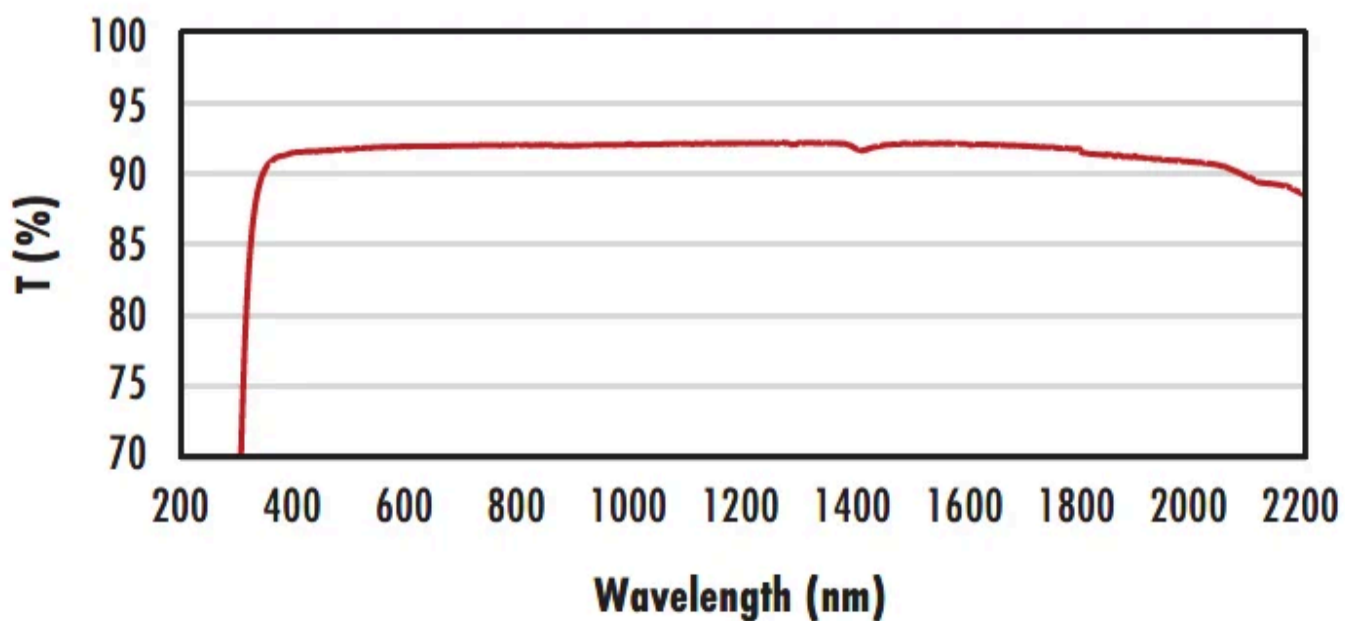
## Product Details

- 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

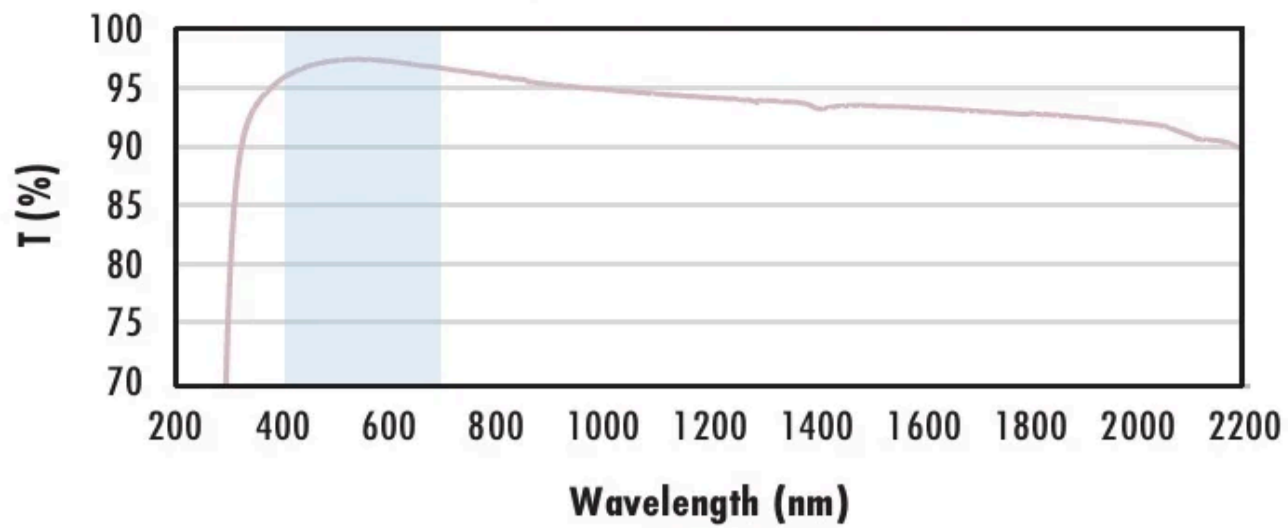
### Uncoated N-BK7 Typical Transmission



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

[Click Here to Download Data](#)

### 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:

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

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:

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

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

[Click Here to Download Data](#)

### 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 range, with the following specification:

$$R_{abs} \leq 0.25\% \text{ @ } 880\text{nm}$$

$$R_{avg} \leq 1.25\% \text{ @ } 400 - 870\text{nm}$$

$$R_{avg} \leq 1.25\% \text{ @ } 890 - 1000\text{nm}$$

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 0° (425–675nm) coating at 0° AOI.

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

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

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

[Click Here to Download Data](#)

### 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:

$$R_{abs} \leq 0.25\% \text{ @ } 532\text{nm}$$

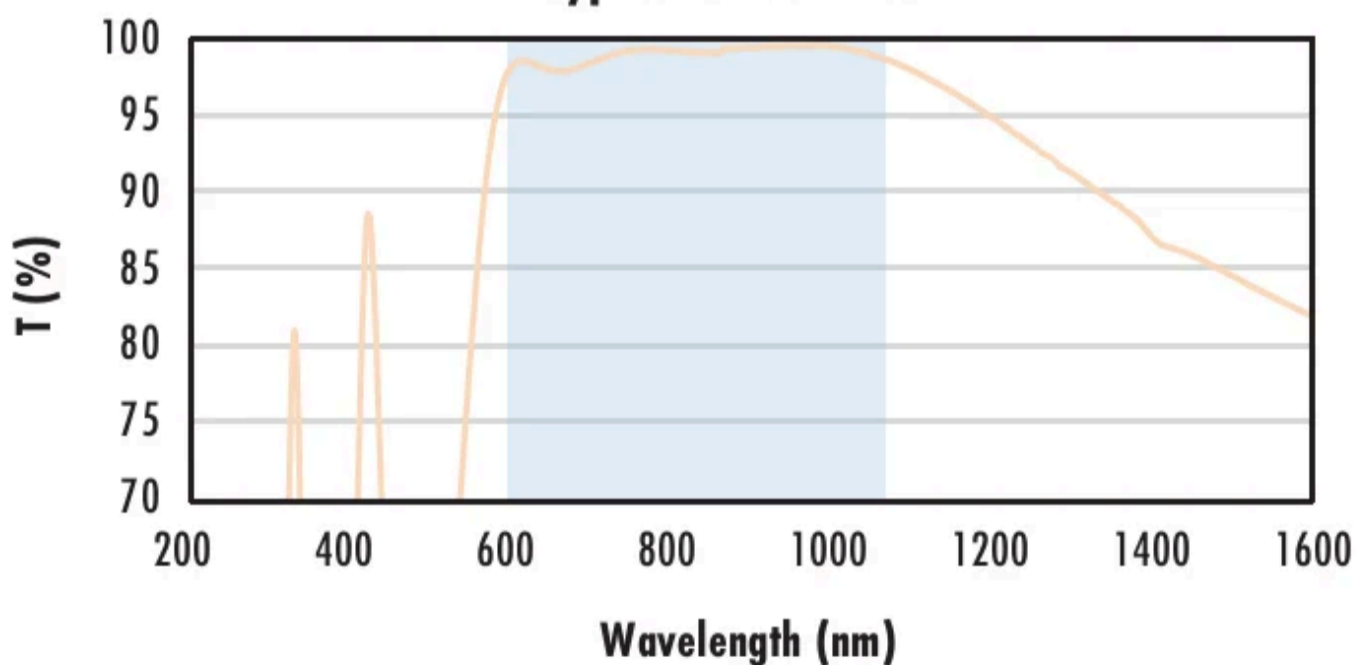
$$R_{abs} \leq 0.25\% \text{ @ } 1064\text{nm}$$

$$R_{avg} \leq 1.0\% \text{ @ } 500 - 1100\text{nm}$$

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 I (600 – 1050nm) coating at 0° AOI.

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

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

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

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## N-BK7 with NIR II Coating Typical Transmission



Typical transmission of a 3mm thick N-BK7 window with 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 - 800nm  
 $R_{abs} \leq 1.0\%$  @ 800 - 1550nm  
 $R_{avg} \leq 0.7\%$  @ 750 - 1550nm

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

[Click Here to Download Data](#)

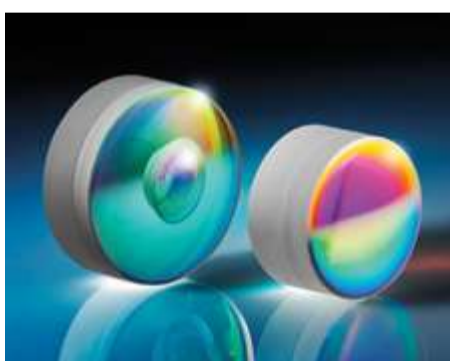
## Related Products



#13-800 - Small Lens Clamp for 4-8mm Dia. Optics  
**C\$240.80**

Qty

## Frequently Purchased Together







#65-435 - 9mm Dia. x 12mm FL, NIR II Coated, Achromatic Lens  
**C\$166.60**

Qty

## Compatible Mounts

	Title	Type	Compare	Stock Number	Price	Buy
<a href="#">MORE+</a>	6.0mm Optic Dia., Optic Mount	Fixed		#64-552	C\$45.85 <a href="#">Request Quote</a>	2 In Stock <input type="text" value="1"/>

	Title	Type	Compare	Stock Number	Price	Buy
<a href="#">MORE+</a> 	6mm Inner Single Optic Mount	Fixed		#38-745	C\$57.40 <a href="#">Request Quote</a>	20+ In Stock <input type="text" value="1"/> 
<a href="#">MORE+</a> 	25mm Cage 6mm Diameter Lens Mount	Fixed		#85-554	C\$64.05 <a href="#">Request Quote</a>	1 In Stock <input type="text" value="1"/> 

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# Resources

## Media Type

- Application Note
- Glossary
- Technical Tool
- Video
- FAQ
- Trending in Optics

APPLICATION NOTE

Anti-Reflection (AR) Coatings

APPLICATION NOTE

An Introduction to Optical Coatings

APPLICATION NOTE

Understanding Optical Specifications

APPLICATION NOTE

Lens Geometry Performance Comparison

GLOSSARY

NIR (Near Infrared)

GLOSSARY

VIS/NIR Coating

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