

**TECHSPEC®**

# 12.0mm Dia. x 25mm FL, NIR II, Inked, Plano-Convex Lens



Stock #38-394-INK [CONTACT US](#) [Other Coating Options](#)

- 1 + £46<sup>.80</sup>

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Volume Pricing	
Qty 1-9	each £46.80
Qty 10-24	each £42.00
Qty 25-49	each £37.60
Need More?	<a href="#">Request Quote</a>

Prices shown are exclusive of VAT/local taxes

Product Downloads	
STEP:step	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

**Type:** Plano-Convex Lens

## Physical & Mechanical Properties

<b>Diameter (mm):</b> 12.00 ±0.025	<b>Centering (arcmin):</b> <1
<b>Center Thickness CT (mm):</b> 2.70 ±0.05	<b>Edge Thickness ET (mm):</b> 1.22
<b>Clear Aperture CA (mm):</b> 11	<b>Bevel:</b> Protective as needed

## Optical Properties

<b>Effective Focal Length EFL (mm):</b> 25.00 @ 587.6nm	<b>Back Focal Length BFL (mm):</b> 23.22
<b>Coating:</b> NIR II (750-1550nm)	<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>Substrate:</b> <a href="#">N-BK7</a>	<b>Surface Quality:</b> 40-20
<b>Power (P-V) @ 632.8nm:</b> 1.5λ	<b>Irregularity (P-V) @ 632.8nm:</b> λ/4
<b>Focal Length Tolerance (%):</b> ±1	<b>Radius R<sub>1</sub> (mm):</b> 12.92

<b>f/#:</b> 2.08	<b>Numerical Aperture NA:</b> 0.24
<b>Wavelength Range (nm):</b> 750 - 1550	<b>Damage Threshold, By Design:</b> 8 J/cm <sup>2</sup> @ 1064nm, 10ns

## 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](#).

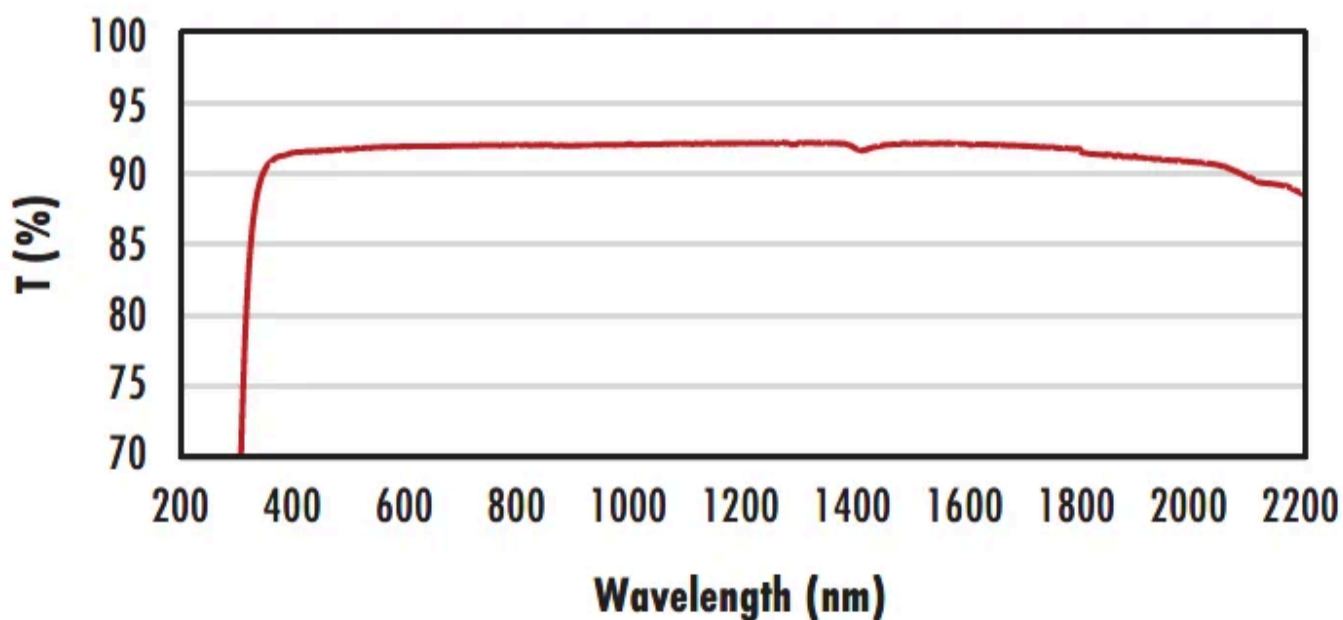
## Product Details

- AR Coated to Provide <0.7% Reflectance per Surface for 750 - 1550nm
- Designed for 0° Angle of Incidence
- Various 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

### 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:

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

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.

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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 range, with the following specification:

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

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.

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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:

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

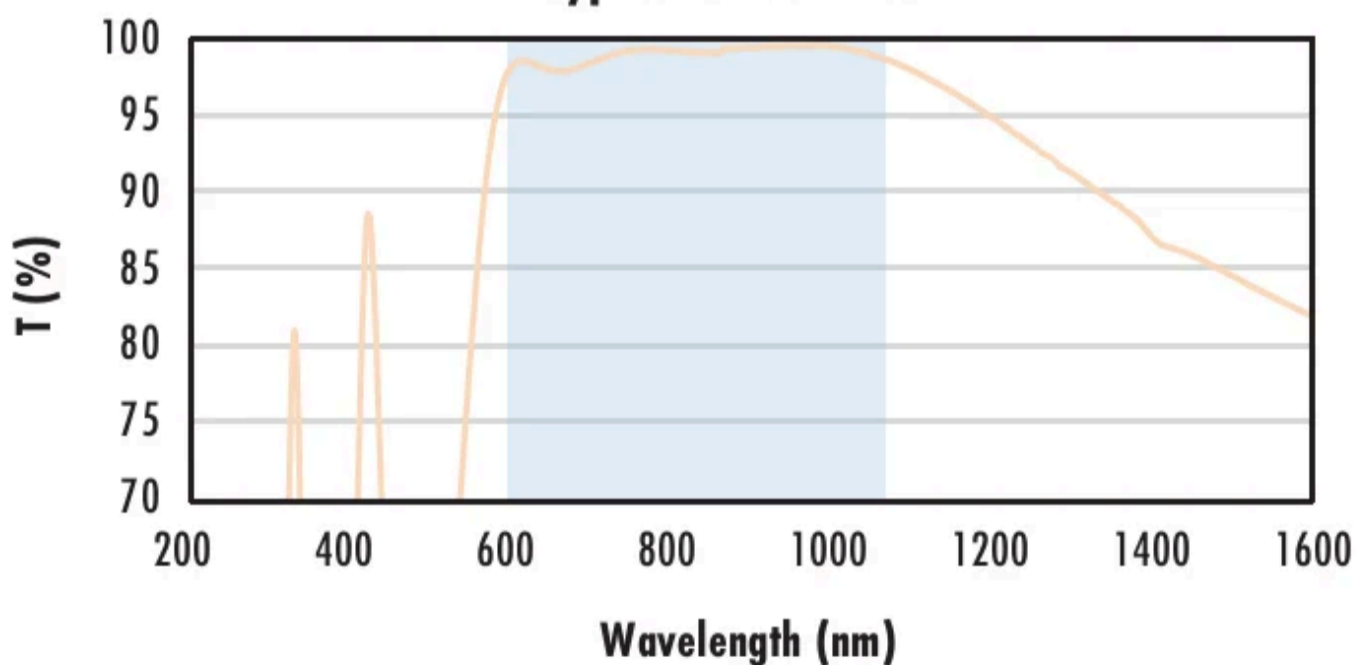
$$R_{abs} \leq 0.25\% \text{ @ } 1064\text{nm}$$

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

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.

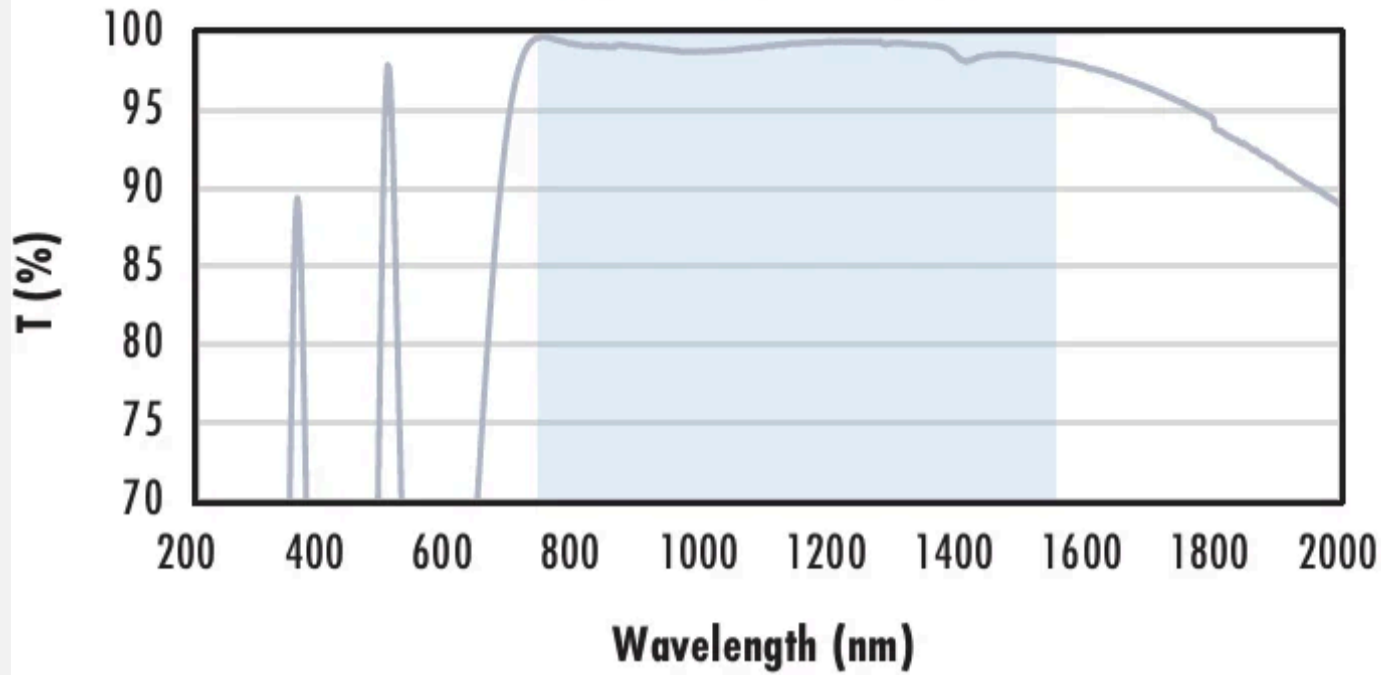
The blue shaded region indicates the coating design wavelength range, with the following specification:

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

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.

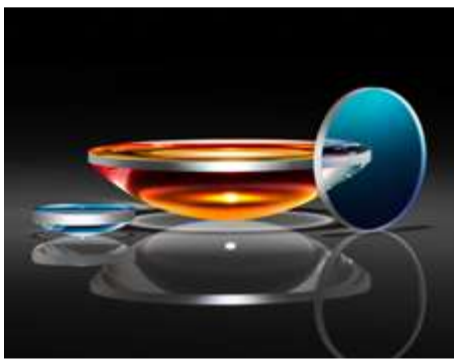
The blue shaded region indicates the coating design wavelength range, with the following specification:

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

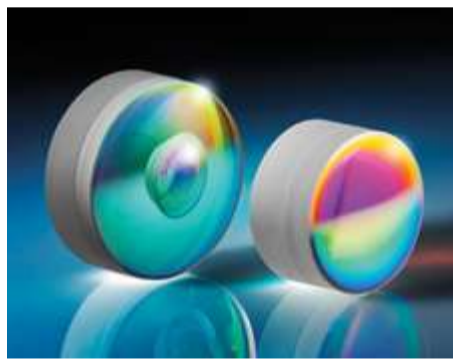
Data outside this range is not guaranteed and is for reference only.

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## Related Products



UV Fused Silica Plano-Convex (PCX) Lenses - NIR II Coated



Near-IR (NIR) Achromatic Lenses





NIR II Coated Double-Convex (DCX) Lenses



Optical Cleaning

## Compatible Mounts

	Title	Type	Compare	Stock Number	Price	Buy
<a href="#">MORE+</a> 	12.0mm Optic Dia., Optic Mount	Fixed		#64-555	£26.20 <a href="#">Request Quote</a>	10 In Stock <input type="text" value="1"/> 

Check out our full selection of mounts [here](#).


## Resources

### Media Type

- Application Note
- Glossary
- Technical Tool
- Video

 APPLICATION NOTE  
**Anti-Reflection (AR) Coatings**

 APPLICATION NOTE  
**An Introduction to Optical Coatings**

 APPLICATION NOTE  
**Understanding Optical Specifications**

FAQ

Trending in Optics

 APPLICATION NOTE

**Lens Geometry  
Performance  
Comparison**

GLOSSARY

**NIR (Near  
Infrared)**

GLOSSARY

**VIS/NIR  
Coating**

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