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/ [Standard Plano-Convex \(PCX\) Lenses](#) / [NIR II Coated Plano-Convex \(PCX\) Lenses](#)

TECHSPEC®

2.0mm Dia. x 4.0mm FL, NIR II Coated, Plano-Convex Lens



Stock #67-433 **8 In Stock** [Other Coating Options](#)

1 **£70^{.00}**

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Volume Pricing	
Qty 1-9	each £70.00
Qty 10-24	each £62.80
Qty 25-49	each £56.40
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Prices shown are exclusive of VAT/local taxes

Product Downloads	
STEP:step	Curve:pdf
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EO Spec Sheet	Download All

General	
Type:	Plano-Convex Lens
Physical & Mechanical Properties	
Diameter (mm):	2.00 +0.0/-0.025
Centering (arcmin):	30-45, typical
Center Thickness CT (mm):	0.80 ±0.05
Edge Thickness ET (mm):	0.65
Clear Aperture CA (mm):	1.5
Bevel:	Protective as needed
Optical Properties	
Effective Focal Length EFL (mm):	4.00 @ 587.6nm
Back Focal Length BFL (mm):	3.57
Coating:	NIR II (750-1550nm)
Coating Specification:	R _{abs} ≤1.5% @ 750 - 800nm R _{abs} ≤1.0% @ 800 - 1550nm R _{avg} ≤0.7% @ 750 - 1550nm
Substrate:	N-LASF9
Surface Quality:	20-10
Power (P-V) @ 632.8nm:	1.5λ
Irregularity (P-V) @ 632.8nm:	λ/4
Focal Length Tolerance (%):	±1
Radius R₁ (mm):	3.40

f/#: 2	Numerical Aperture NA: 0.25
Wavelength Range (nm): 750 - 1550	Damage Threshold, By Design: ① 8 J/cm ² @ 1064nm, 10ns

Regulatory Compliance

RoHS 2015: Compliant	Certificate of Conformance: View
Reach 235: Compliant	

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

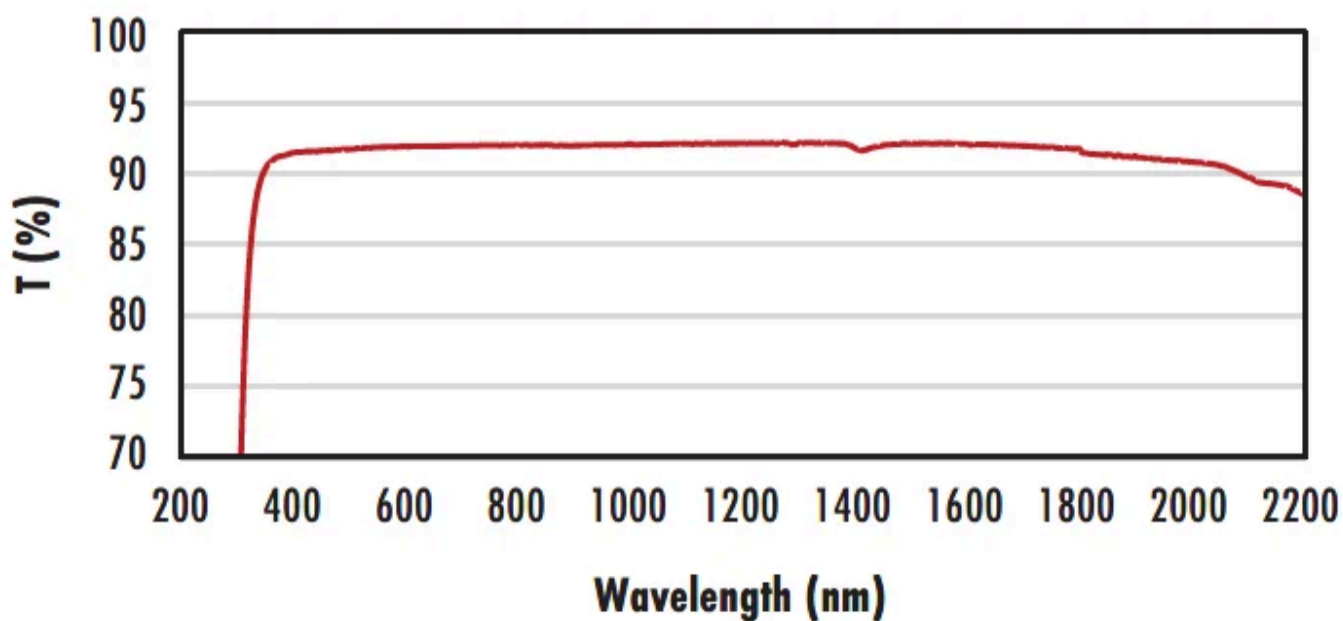
- AR Coated to Provide <0.7% Reflectance per Surface for 750 - 1550nm
- Designed for 0° Angle of Incidence
- Various PCX Coating Options: **Uncoated**, **MgF₂**, **VIS 0°**, **VIS-NIR**, **NIR I**, **VIS-EXT**, and **YAG-BBAR**

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 **MgF₂**, **VIS 0°**, **VIS-NIR**, **NIR I**, **VIS-EXT**, and **YAG-BBAR**.

Technical Information

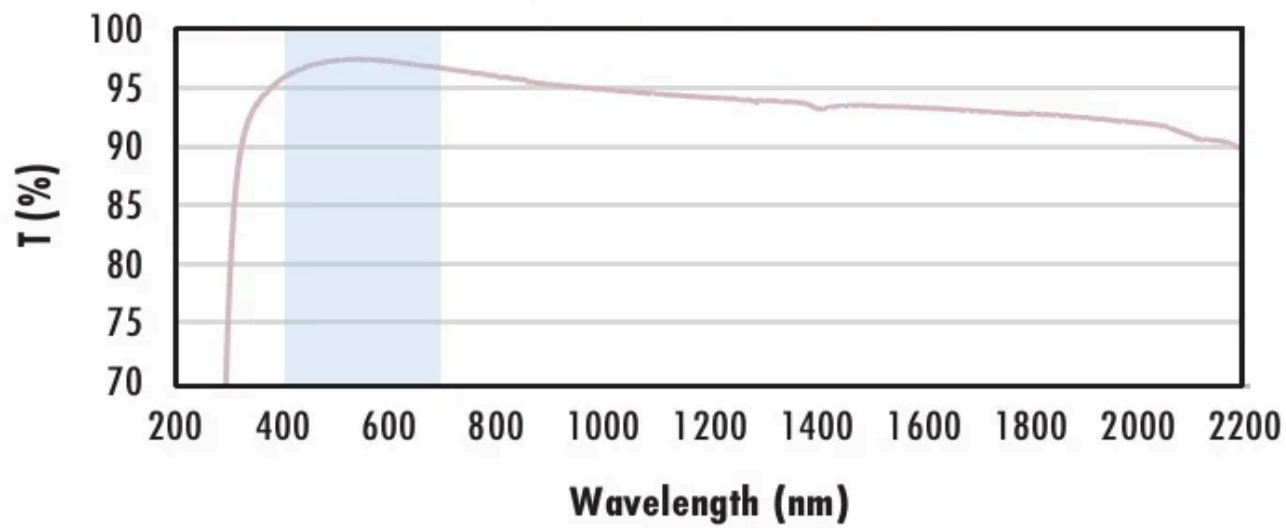
Uncoated N-BK7 Typical Transmission



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

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N-BK7 with MgF₂ Coating Typical Transmission



Typical transmission of a 3mm thick N-BK7 window with MgF₂ (400-700nm) coating at 0° AOI.

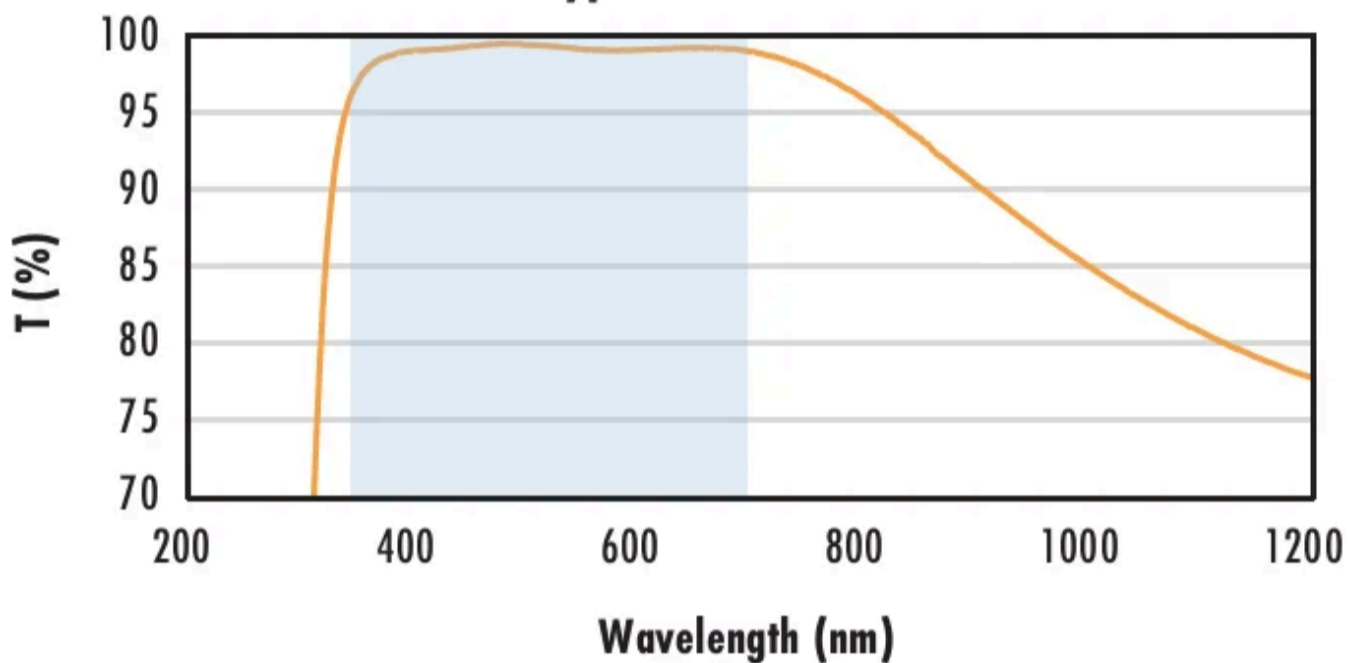
The blue shaded region indicates the coating design wavelength range, with the following specification:

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

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:

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

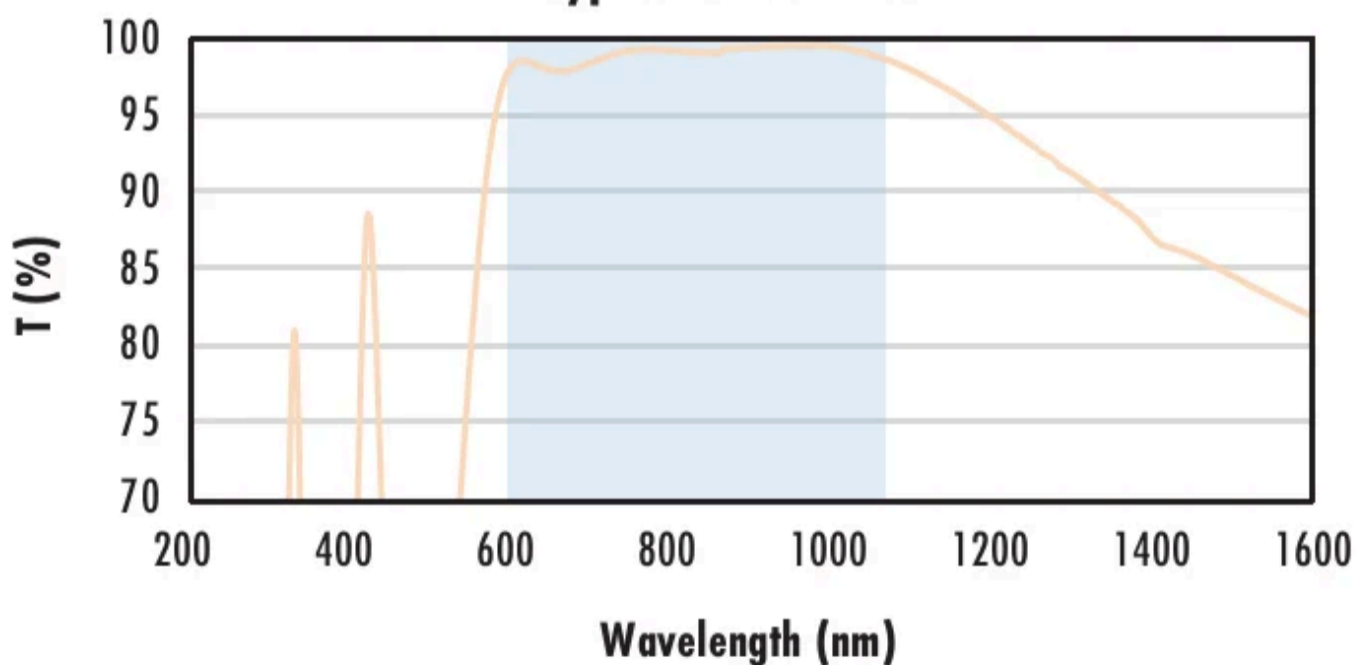
$$R_{abs} \leq 0.25\% \text{ @ } 1064\text{nm}$$

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

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.

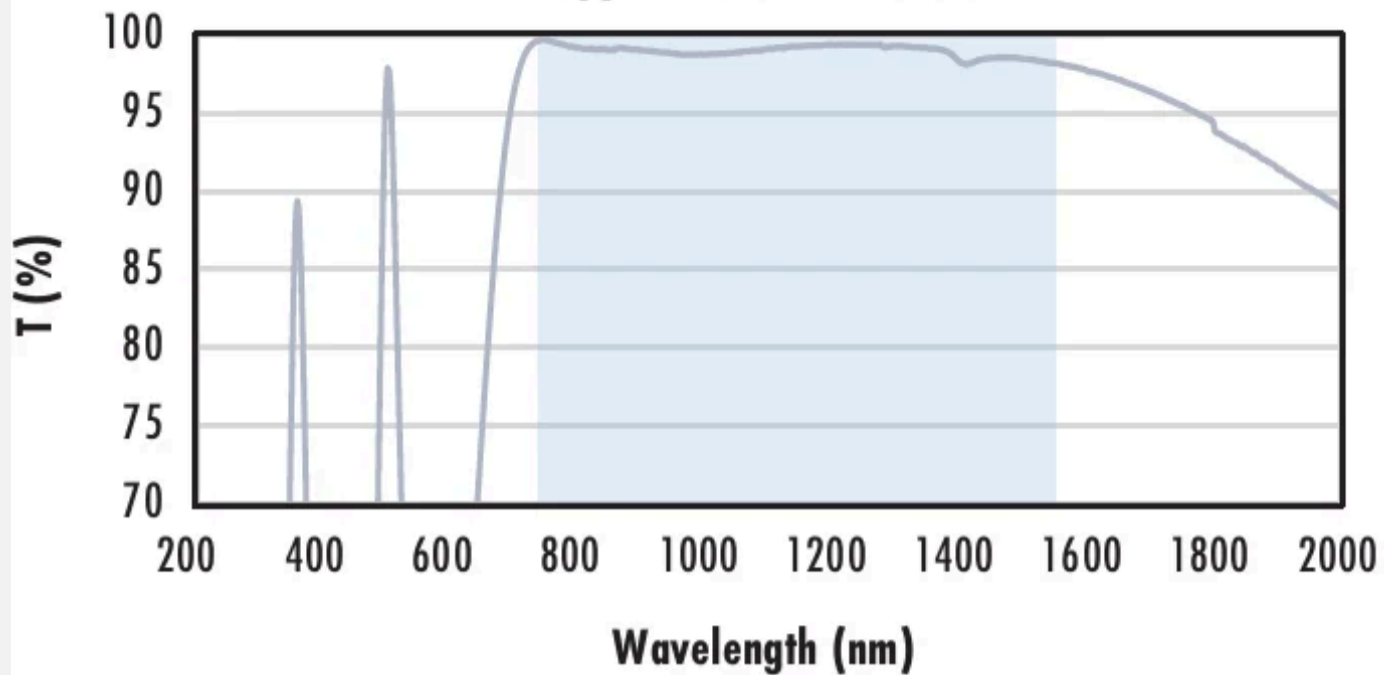
The blue shaded region indicates the coating design wavelength range, with the following specification:

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

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

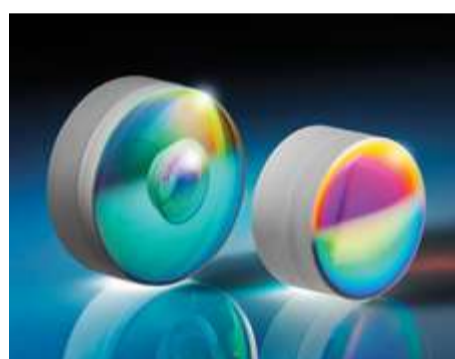
Data outside this range is not guaranteed and is for reference only.

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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

Frequently Purchased Together



#88-778 - 3.0mm Dia. x 9.0mm FL, YAG-BBAR Coated Plano-Convex Lens
£56.40

Qty



#35-719 - 2.0mm Dia. x 3.0mm FL, YAG-BBAR Coated Plano-Convex Lens
£71.20

Qty



#39-262 - 6.35mm Dia., 0.5mm Thick, NIR II AR Coated Sapphire Window
£51.00

Qty

Resources

Media Type

- Application Note
- Glossary

APPLICATION NOTE
Anti-Reflection (AR) Coatings

APPLICATION NOTE
An Introduction to Optical Coatings

APPLICATION NOTE
Understanding Optical Specifications

Technical Tool

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APPLICATION NOTE

**Lens Geometry
Performance
Comparison**

GLOSSARY

**NIR (Near
Infrared)**

GLOSSARY

**VIS/NIR
Coating**

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