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TECHSPEC®

4.0mm Dia. x 8.0mm

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Stock #67-448 **3 In Stock** [Other Coating Options](#)

1

€66^{,00}

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Volume Pricing

Qty 1-9 €66,00 each

Qty 10-24 €59,50 each

Qty 25-49 €53,00 each

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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
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General

Type: Plano-Convex Lens

Physical & Mechanical Properties

Diameter (mm): 4.00 +0.0/-0.025

Centering (arcmin): <3

Center Thickness CT (mm): 1.39 ±0.05

Edge Thickness ET (mm): 1.00

Clear Aperture CA (mm): 3.6

Bevel: Protective as needed

Optical Properties

Effective Focal Length EFL (mm): 8.00 @ 587.6nm

Back Focal Length BFL (mm): 7.17

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-BAF10](#)

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): 5.36

f/#: 2	Numerical Aperture NA: 0.25
Wavelength Range (nm): 750 - 1550	Damage Threshold: 8 J/cm ² @ 1064nm - 10ns
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Regulatory Compliance	
RoHS 2015: Compliant	Conformance:
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

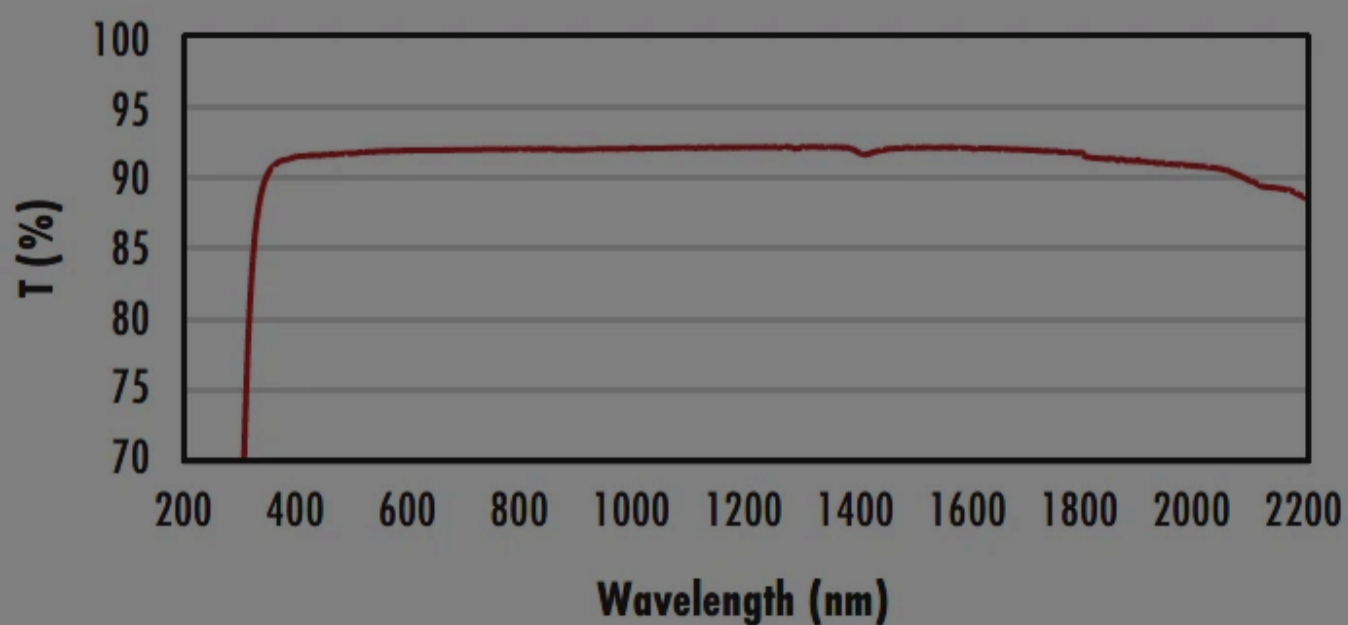
- AR Coated to Provide <0.7% Reflectance per Surface for 750 - 1550nm
- Designed for 0° Angle of Incidence
- Various PCX Coating Options: **Uncoated**, **MgF₂**, **VIS 0°**, **VIS-NIR**, **NIR I**, **VIS-EXT**, and **YAG-BBAR**

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



Please select your shipping country to view the most accurate inventory information, and to determine the correct Edmund Optics sales office for your order.

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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:

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

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

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

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

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N-BK7 with VIS 0° Coating Typical Transmission



Please select your shipping country to view the most accurate inventory information, and to determine the correct Edmund Optics sales office for your order.

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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:

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

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:

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

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

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

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

[Click Here to Download Data](#)

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:

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

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

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N-BK7 with NIR II Coating Typical Transmission



Please select your shipping country to view the most accurate inventory information, and to determine the correct Edmund Optics sales office for your order.

Select Your Country/Region:

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 - 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



#13-800 - Small Lens Clamp for 4-8mm Dia. Optics
€172,00

Qty

Frequently Purchased Together



#47-853 - 4.0mm Dia. x 10.0mm FL, VIS-NIR Coated, Plano-Convex Lens
€71,50

Qty



#48-661 - 5.0mm Dia. x 7.5mm FL, VIS-NIR Coated, Plano-Convex Lens
€55,50

Qty



#67-595 - 4.5mm Dia. x 9mm FL, NIR II Coated, Double-Convex Lens
€71,50

Qty

Resources

Media Type

APPLICATION NOTE

Anti-Reflection (AR) Coatings

APPLICATION NOTE

APPLICATION NOTE

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

An Introduction to Optical Coatings

Understanding Optical Specifications

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APPLICATION NOTE

Lens Geometry Performance Comparison

GLOSSARY

NIR (Near Infrared)

GLOSSARY

VIS/NIR Coating

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