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**TECHSPEC®**

# 5.0mm Dia. x 15mm Thick Standard Plano-Convex Lens

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Select Your Country/Region: European Union

Submit



Stock #47-871 **5 In Stock** [Other Coating Options](#)

1

€53<sup>00</sup>

ADD TO CART



### Volume Pricing

Qty 1-9 €53,00 each

Qty 10-24 €47,75 each

Qty 25-49 €42,50 each

Need More? [Request Quote](#)

Prices shown are exclusive of VAT/local taxes

### Product Downloads

- STEP:stp
- PDF Drawing:pdf
- ISO 10110 Drawing
- IGES:igs
- Zemax:zar
- Zemax:zmx
- eDrawing:eprt
- Code V:seq
- EO Spec Sheet
- [Download All](#)

## General

Type: Plano-Convex Lens

## Physical & Mechanical Properties

Diameter (mm): 5.00 +0.0/-0.025

Centering (arcmin): <1

Center Thickness CT (mm): 1.60 ±0.05

Edge Thickness ET (mm): 1.19

Clear Aperture CA (mm): 4.5

Bevel: Protective as needed

## Optical Properties

Effective Focal Length EFL (mm): 15.00 @ 587.6nm

Back Focal Length BFL (mm): 13.94

Coating: VIS 0° (425-675nm)

Coating Specification: R<sub>avg</sub> ≤0.4% @ 425 - 675nm

Substrate: [N-BK7](#)

Surface Quality: 40-20

Power (P-V) @ 632.8nm: 1.5λ

Irregularity (P-V) @ 632.8nm: λ/4

Focal Length Tolerance (%): ±1

Radius R<sub>1</sub> (mm): 7.75

f/#: 3

Numerical Aperture NA: 0.17

**Wavelength Range (nm):** 425 - 675

**Damage Threshold, Reference:** 5 J/cm<sup>2</sup> @ 532nm, 10ns ⓘ

## Regulatory Compliance

RoHS 2015: **Compliant**

Reach 235: **Compliant**

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## 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

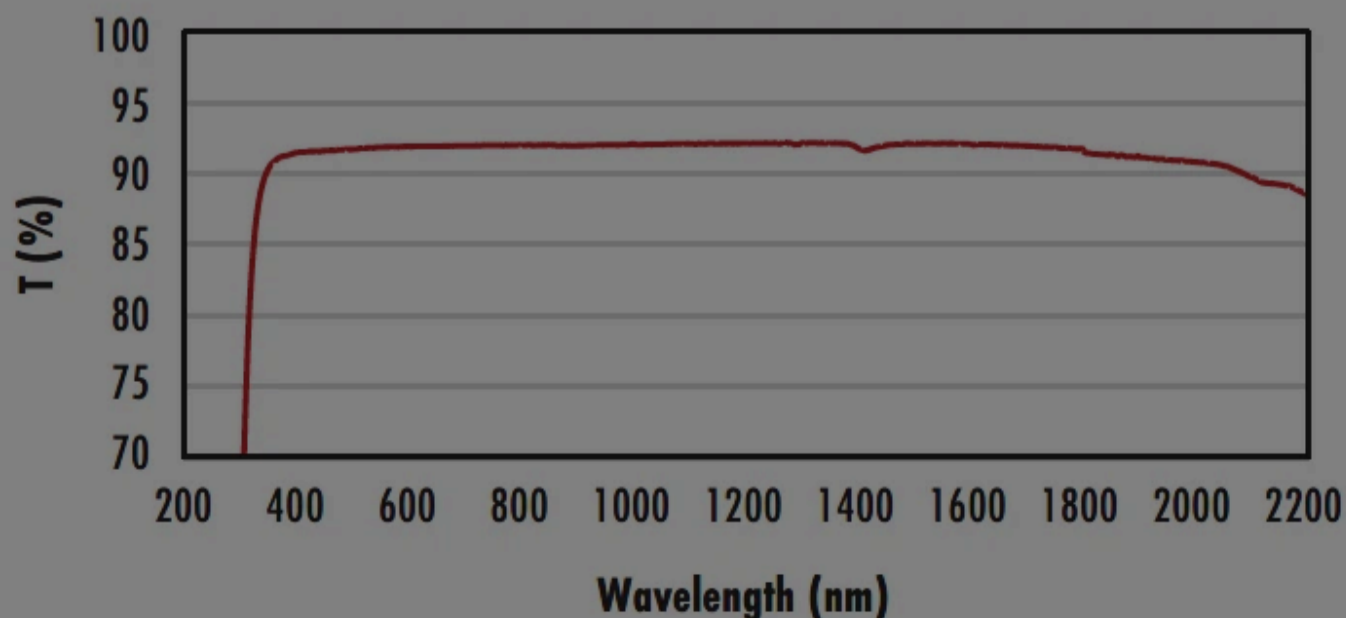
- AR Coated to Provide <0.4% Reflectance per Surface for 425 - 675nm
- Designed for 0° Angle of Incidence
- Various PCX Coating Options: **Uncoated**, **MgF<sub>2</sub>**, **VIS-NIR**, **NIR I**, **NIR II**, **VIS-EXT**, and **YAG-BBAR**

TECHSPEC® VIS 0° Coated Plano-Convex (PCX) 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. Plano-Convex lenses are ideal for a multitude of optics and photonics applications, including biotech instruments such as DNA sequencers and polymerase chain reaction (PCR) testing platforms. TECHSPEC® VIS 0° Coated Plano-Convex (PCX) 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-NIR**, **NIR I**, **NIR II**, **VIS-EXT**, and **YAG-BBAR**.

These coated lenses can be utilized in a host of optics and photonics applications, including biotech instruments such as DNA sequencers and polymerase chain reaction (PCR) testing platforms.

## 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



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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.

[Click Here to Download Data](#)

### 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:

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

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.

[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.

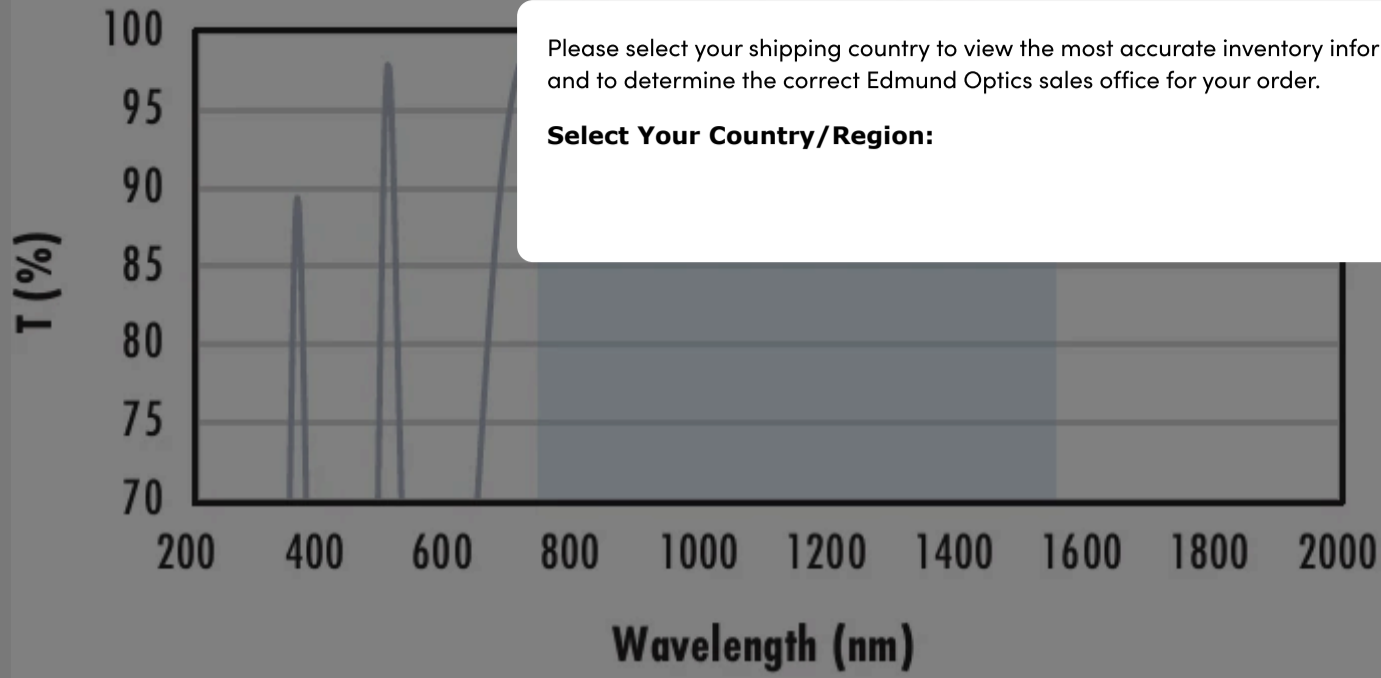
The blue shaded region indicates the coating design wavelength range, with the following specification:

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

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



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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:

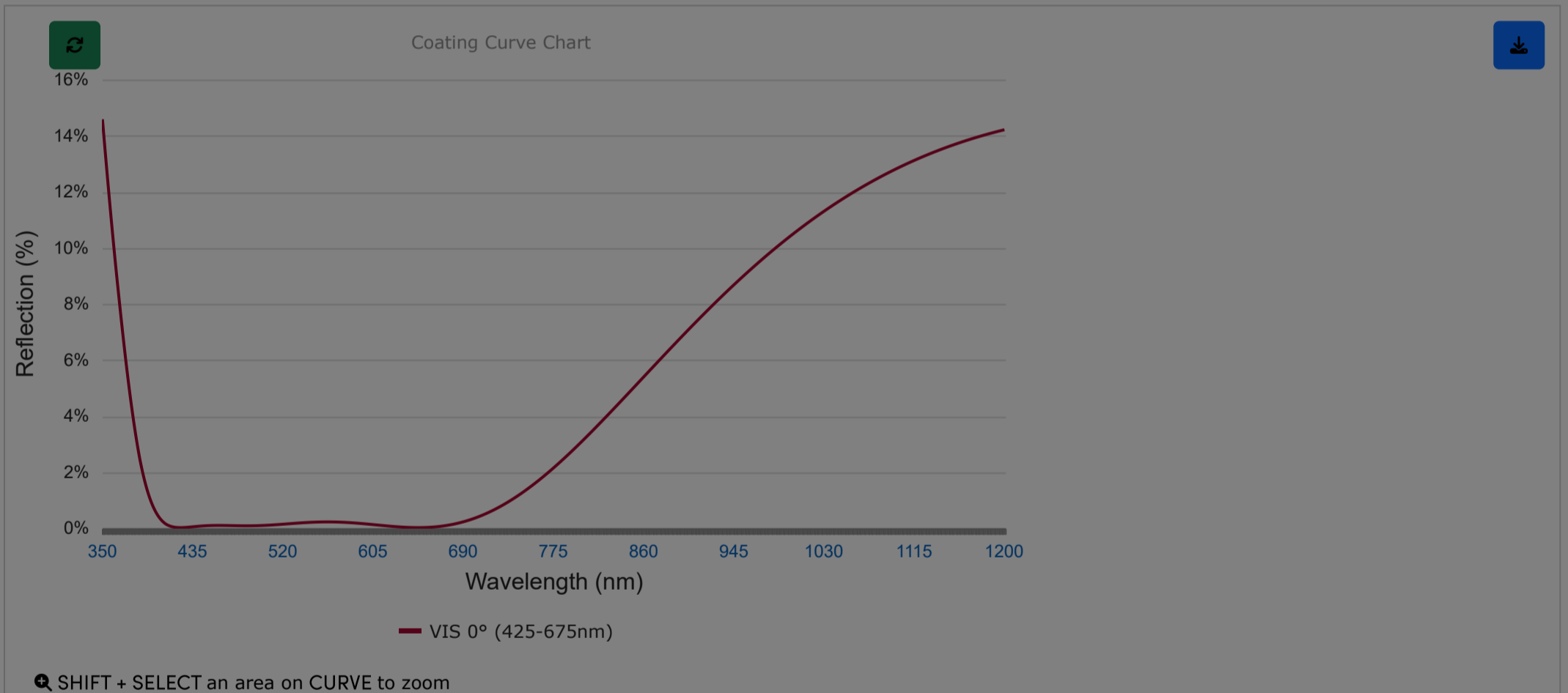
- $R_{abs} \leq 1.5\%$  @ 750 - 800nm
- $R_{abs} \leq 1.0\%$  @ 800 - 1550nm
- $R_{avg} \leq 0.7\%$  @ 750 - 1550nm

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

[Click Here to Download Data](#)

## Coating Curves

VIS 0° (425-675nm)



Please note that coating performance outside each product's specified design range is theoretical and may vary.

## Related Products

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€172,00

Qty



## Frequently Purchased Together



#32-328 - 5mm, Uncoated, N-BK7 Right Angle Prism  
€52,00

Qty



#32-303 - 6.25mm Dia. x 20mm FL, MgF<sub>2</sub> Coated, Achromatic Doublet Lens  
€71,00

Qty



#32-475 - 20.0mm Dia. x 100.0mm FL Uncoated, Plano-Convex Lens  
€32,75

Qty



#32-936 - 20.0mm Dia. x 70.0mm FL, Uncoated, Plano-Convex Lens  
€32,75

Qty



## Compatible Mounts

	Title	Type	Compare	Stock Number	Price	Buy
<a href="#">MORE+</a>	5.0mm Optic Dia., Optic Mount	Fixed		#64-551	€32,75 <a href="#">Request Quote</a>	14 In Stock <input type="text" value="1"/>

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

## Resources

### Media Type

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

APPLICATION NOTE

### Anti-Reflection (AR) Coatings

APPLICATION NOTE

### An Introduction to Optical Coatings

APPLICATION NOTE

### Understanding Optical Specifications

APPLICATION NOTE

TECHNICAL TOOL

### SAG Calculator

TRENDING IN OPTICS

Lens Geometry  
Performance  
Comparison

Future of  
Spherical  
Lenses

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