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**TECHSPEC®**

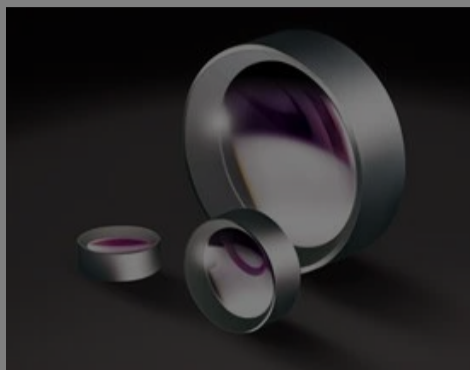
# 12mm Diameter

# Concave Lens

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Submit

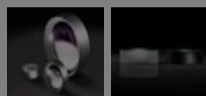


Stock #47-905 **14 In Stock** [Other Coating Options](#)

1

€48<sup>,25</sup>

**ADD TO CART**



Volume Pricing	
Qty 1-9	each €48,25
Qty 10-25	each €43,25
Qty 26-49	each €38,50
Need More?	<a href="#">Request Quote</a>

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-Concave Lens

### Physical & Mechanical Properties

**Diameter (mm):** 12.00 +0.0/-0.025

**Bevel:** Protective as needed

**Center Thickness CT (mm):** 2.20

**Center Thickness Tolerance (mm):** ±0.05

**Centering (arcmin):** <1

**Clear Aperture CA (mm):** 11.00

**Edge Thickness ET (mm):** 4.12

### Optical Properties

**Effective Focal Length EFL (mm):** -12.00

**Substrate:** N-SF11

**f/#:** 1.00

**Numerical Aperture NA:** 0.50

**Coating:** VIS 0° (425-675nm)

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

**Back Focal Length BFL (mm):** -13.23

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

**Focal Length Specification:** 587.6

**Focal Length Tolerance (%):** ±1

<b>Wavelength (nm):</b>		
<b>Radius R<sub>1</sub> (mm):</b>	-9.42	<b>Surface Quality:</b> 40-20
<b>Damage Threshold, By Design: ⓘ</b>	5 J/cm <sup>2</sup> @ 532nm, 10ns	<div style="border: 1px solid black; padding: 5px; text-align: center;"> <p>Please select your shipping country to view the most accurate inventory information, and to determine the correct Edmund Optics sales office for your order.</p> <p><b>Select Your Country/Region:</b></p> </div>
<b>Irregularity (P-V) @ 632.8nm:</b>	λ/4	

## Regulatory Compliance

<b>RoHS 2015:</b>	<b>Compliant</b>	<b>Certificate of Conformance:</b>	<a href="#">View</a>
<b>Reach 235:</b>	<b>Compliant</b>		

## 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](#).

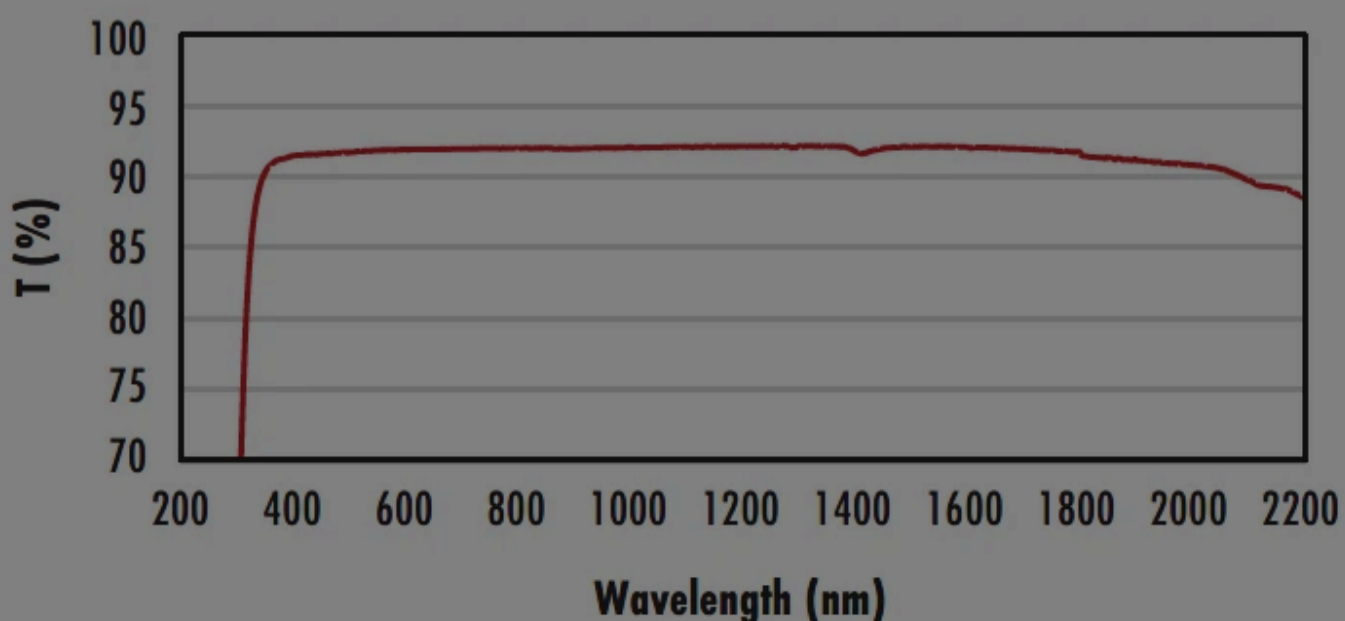
## Product Details

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

TECHSPEC® VIS 0° Coated Plano-Concave (PCV) Lenses are designed to bend parallel input rays to diverge from one another on the output side of the lens 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 VIS 0° Coated Plano-Concave (PCV) Lenses are best used in 0° angle of incidence situations and provide optimized transmission in the 425nm – 675nm range. These lenses are also available [Uncoated](#), [VIS-EXT](#), [MgF<sub>2</sub>](#), [VIS-NIR](#), [YAG-BBAR](#), [NIR I](#), or with [NIR II](#) AR coating options.

## Technical Information

### Uncoated N-BK7 Typical Transmission



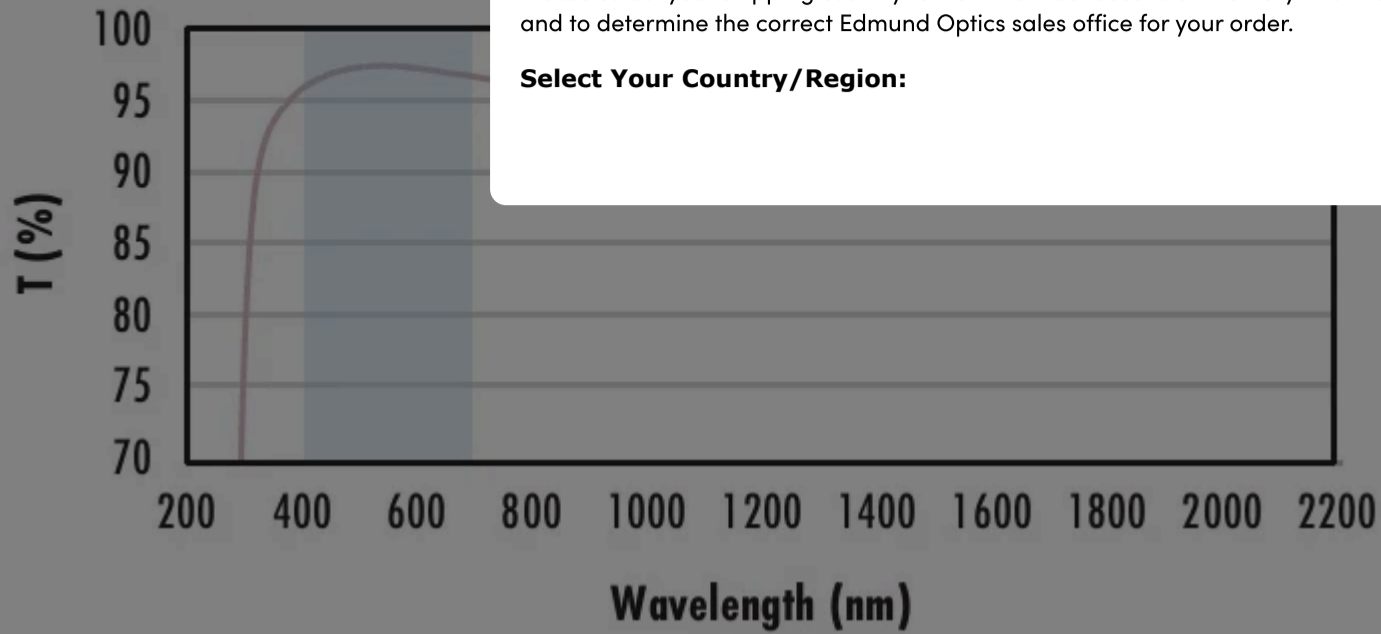
Typical transmission of a 3mm thick, uncoated BK7 window across the UV - NIR spectra.

[Click Here to Download Data](#)

## N-BK7 with MgF<sub>2</sub> Coating

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**Select Your Country/Region:**



Typical transmission of a 3mm thick N-BK7 window with MgF<sub>2</sub> (400-700nm) coating @ 0° AOI.

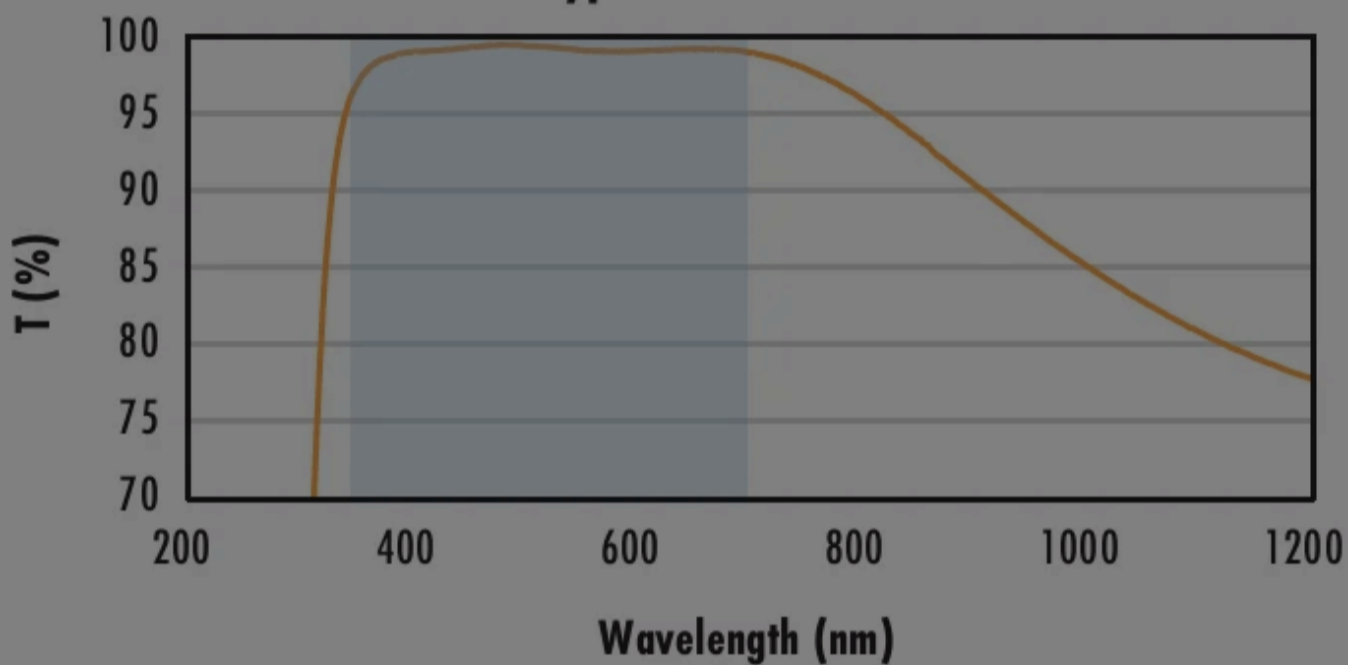
The blue shaded region indicates the coating design wavelength range, with the following specification:

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

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 @ 0° AOI.

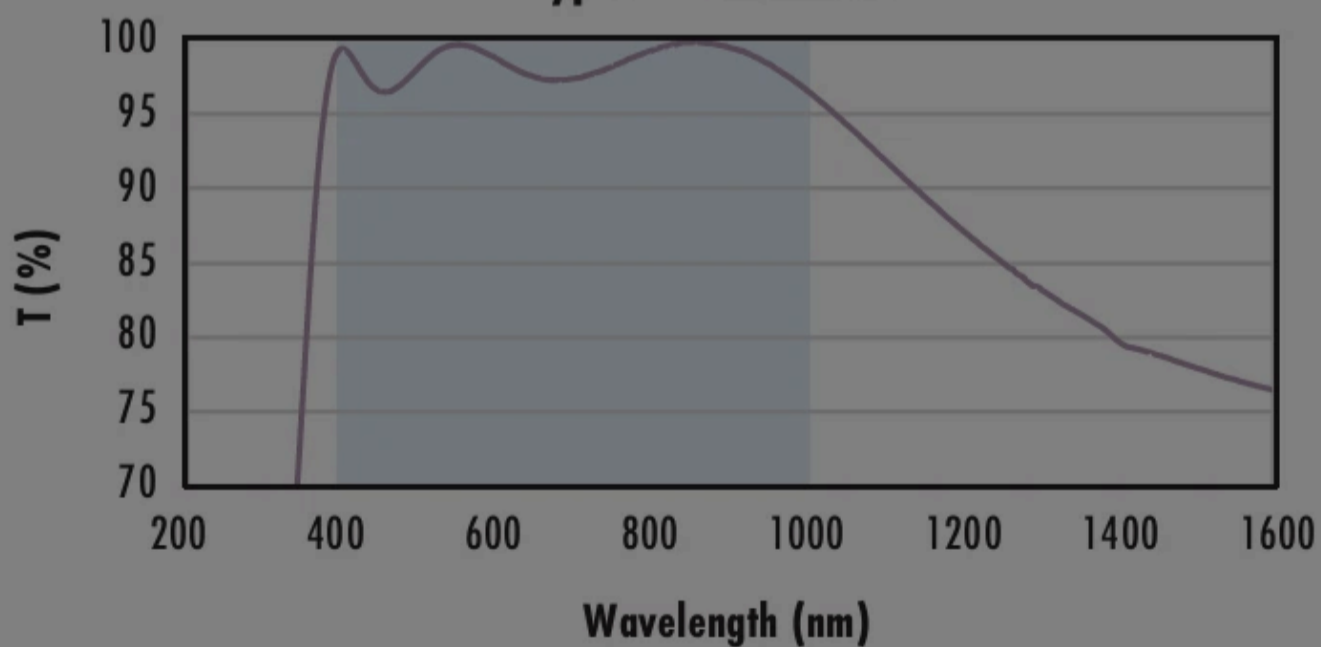
The blue shaded region indicates the coating design wavelength range, with the following specification:

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

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 @ 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-BK window with VIS 0° (425-675nm) coating @ 0° AOI.

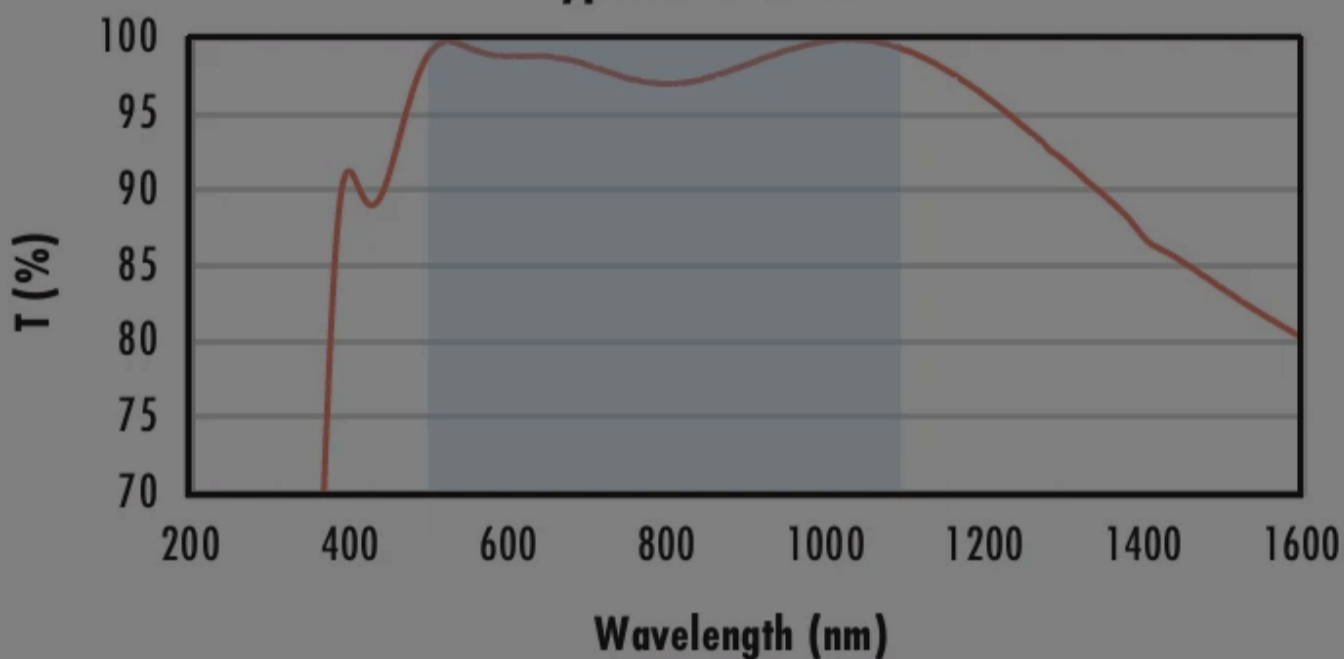
The blue shaded region indicates the coating design wavelength range, with the following specification:

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

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

[Click Here to Download Data](#)

### N-BK7 with YAG-BBAR Coating Typical Transmission



Typical transmission of a 3mm thick N-BK window with YAG-BBAR (500-1100nm) coating @ 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 for reference only.

[Click Here to Download Data](#)

### N-BK7 with NIR I Coating Typical Transmission



Typical transmission of a 3mm thick N-BK window with NIR I (600 - 1050nm) coating @ 0° AOI.

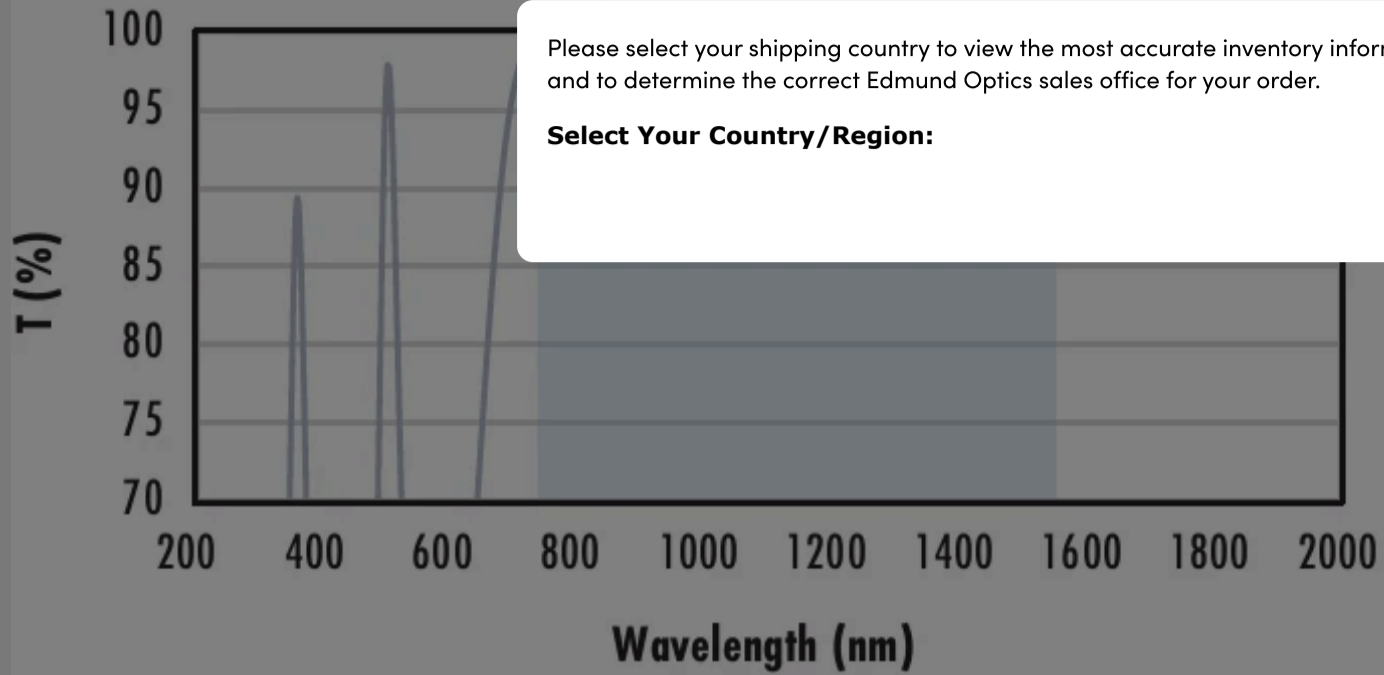
The blue shaded region indicates the coating design wavelength range, with the following specification:

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

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

[Click Here to Download Data](#)

## N-BK7 with NIR II Coating Typical Transmission



Typical transmission of a 3mm thick N-BK window with NIR II (750 - 1550nm) coating 0° AOI.

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

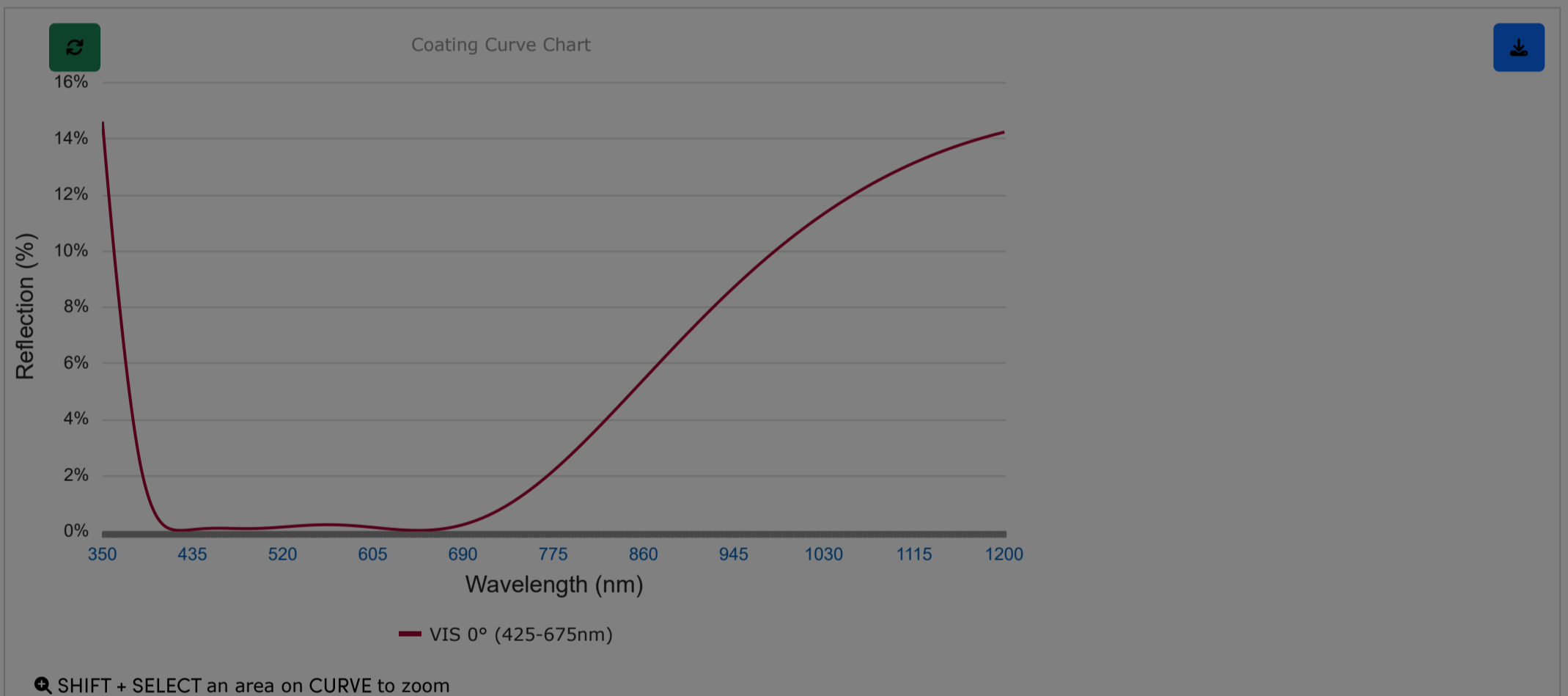
$R_{abs} \leq 1.5\%$  @ 750 - 800nm  
 $R_{abs} \leq 1.0\%$  @ 800 - 1550nm  
 $R_{avg} \leq 0.7\%$  @ 750 - 1550nm

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

[Click Here to Download Data](#)

## Coating Curves

VIS 0° (425-675nm)

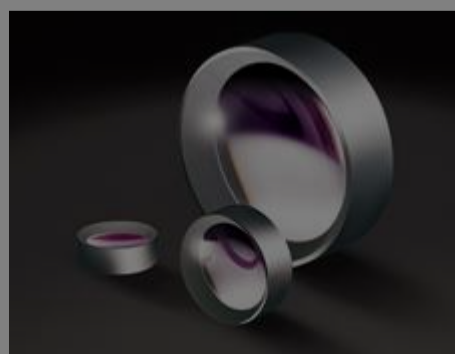


Please note that coating performance outside each product's specified design range is theoretical and may vary.

## Related Products



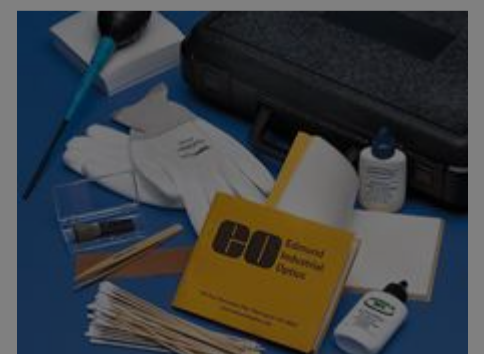
Optical Lenses



MgF<sub>2</sub> Coated Plano-Concave (PCV) Lenses

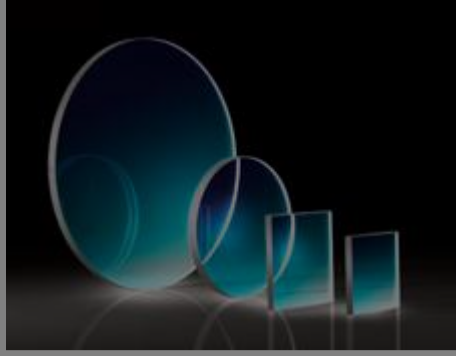


Uncoated Plano-Concave (PCV) Lenses



Optical Cleaning

## Frequently Purchased Together



#02-184 - 38mm Diameter Float Glass Window  
€19,75

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#03-632 - 1.0mm Thick, C-Mount Brass Spacer Ring  
€11,25



#03-676 - 7.0 - 40.0 Optic Height, English Bar-Type Optic Holder  
€106,00


#31-009 - 26mm Diameter, 4-6λ Mirror  
€24,75

## Compatible Mounts

	Title	Type	Compare	Stock Number	Price	Buy
<input type="button" value="MORE+"/> 	12.0mm Optic Dia., Optic Mount	Fixed		#64-555	€32,75 <a href="#">Request Quote</a>	10 In Stock <input type="text" value="1"/> <input type="button" value="🛒"/>

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

## Resources

### Media Type

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

APPLICATION NOTE

Anti-Reflection

APPLICATION NOTE

Ap

APPLICATION NOTE

Understanding  
Optical  
Specifications

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