

# TECHSPEC® 15° Beam Dev. VIS-NIR Coated, N-BK7 Wedge Prism



Stock #47-624 **9 In Stock**

1 MRP ₹6,962

Price inclusive of all taxes

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Volume Pricing	
Qty 1-5	₹6,962 each
Qty 6-25	₹5,550 each
Qty 26-49	₹5,196 each
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Product Downloads

- STEP:step
- PDF Drawing:pdf
- IGES:igs
- eDrawing:eprt
- EO Spec Sheet
- [Download All](#)

## General

**Type:** Wedge Prism

**Note:** Specify this is S1 & S2 power and irregularity, not the overall power of the wedge

## Physical & Mechanical Properties

**Diameter (mm):** 25.00 +0.00/-0.10

**Thickness (mm):** 3.00

**Bevel:** Protective as needed

**Maximum Edge Thickness (mm):** 14.8

**Wedge Angle (arcmin):** 25° 14'

## Optical Properties

**Angle Tolerance (arcsec):** ±30

**Coating:** VIS-NIR (400-1000nm)

**Design Wavelength DWL (nm):** 632.8

**Substrate:** [N-BK7](#)

**Surface Quality:** 20-10

**Image Orientation:** Beam Deviation

**Coating Specification:** R<sub>abs</sub> ≤ 0.25% @ 880nm  
R<sub>avg</sub> ≤ 1.25% @ 400 - 870nm  
R<sub>avg</sub> ≤ 1.25% @ 890 - 1000nm

**Wavelength Range (nm):** 400 - 1000

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

**Power (fringes) @ 632.8nm:** 0.50

<b>Irregularity (fringes) @ 632.8nm:</b>	0.20	<b>Ray Deviation @ 633nm (°):</b>	15.00
<b>Power (diopters):</b>	26.79	<b>Wedge Angle (°):</b>	25.23°
<b>Material Properties</b>			
<b>Coefficient of Thermal Expansion CTE (10<sup>-6</sup>/°C):</b>	7.1		
<b>Regulatory Compliance</b>			
<b>RoHS 2015:</b>	<b>Compliant</b>	<b>Certificate of Conformance:</b>	<b>View</b>
<b>Reach 235:</b>	<b>Compliant</b>		
<b>Country of Origin:</b>	Singapore	<b>Imported By:</b>	Edmund Optics India Private Limited 267, Greystone Building, Second Floor, 6th Cross Rd, Binnamangala, Stage 1, Indiranagar, Bengaluru, Karnataka, India 560038 Phone: +91-80-6845 0000

## 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](#).

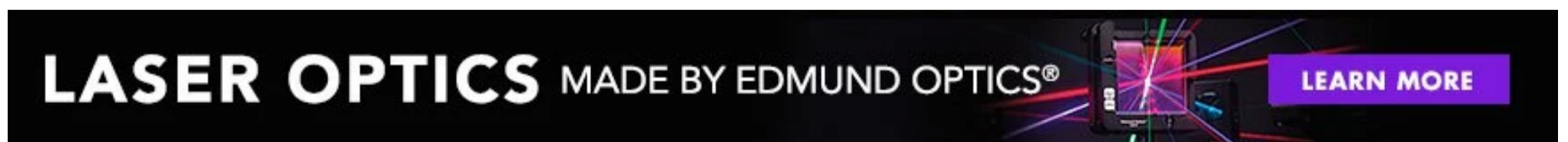
## Product Details

- Ideal for Beam Steering
- 0.5° - 15° Beam Deviation Options
- Available Uncoated or Anti-Reflection Coated
- **Anamorphic Prism Pair** Also Available

Wedge prisms can be used individually to deviate a laser beam a set angle, or two wedge prisms can be used together for beam steering applications. A single wedge prism's ability to deviate the angle of an incident beam is measured in Diopters with 1 diopter deviating the beam 1cm at a 1m working distance.

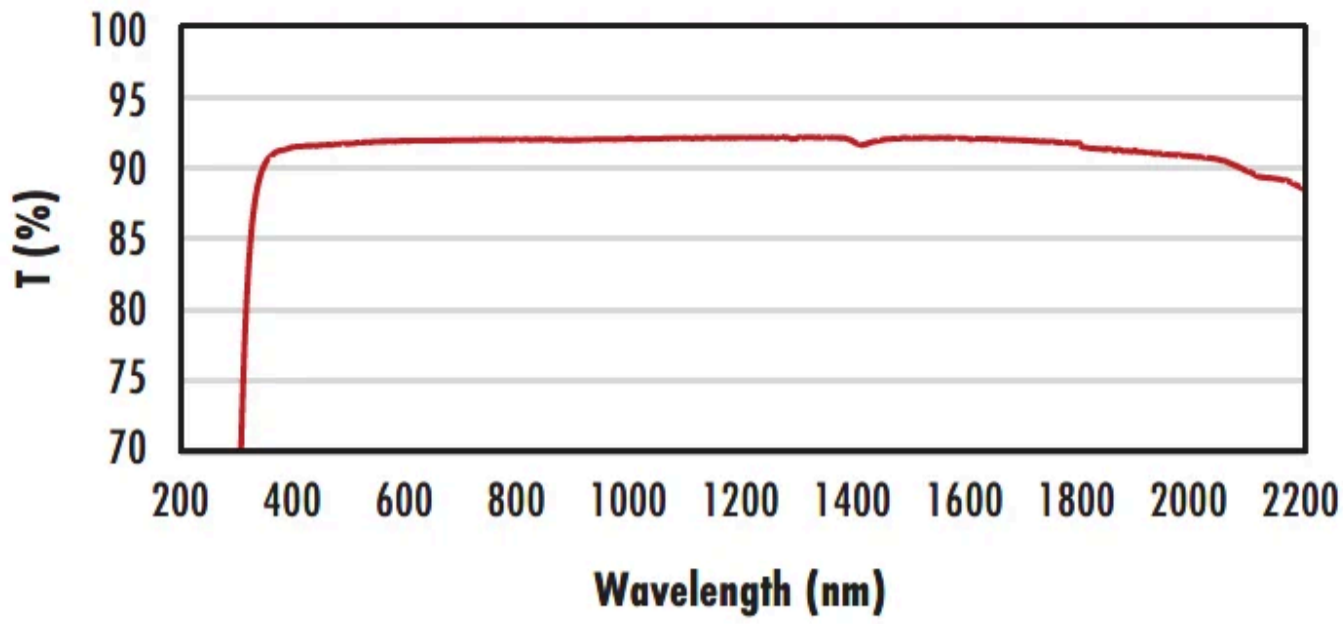
Two wedge prisms can be used as an anamorphic pair for beam shaping (to correct the elliptical shape of diode outputs). Wedge prisms can also be paired to steer a beam anywhere within a circle described by the full angle  $4\theta$ , where  $\theta$  is the deviation from a single prism. This beam steering is accomplished by rotating the two wedge prisms independently of each other and is typically used to scan a beam to different locations in imaging applications.

Note: Beam deviation is shown in degrees and diopters. One diopter is 1cm of deviation at a distance of 1m from the prism.



## Technical Information

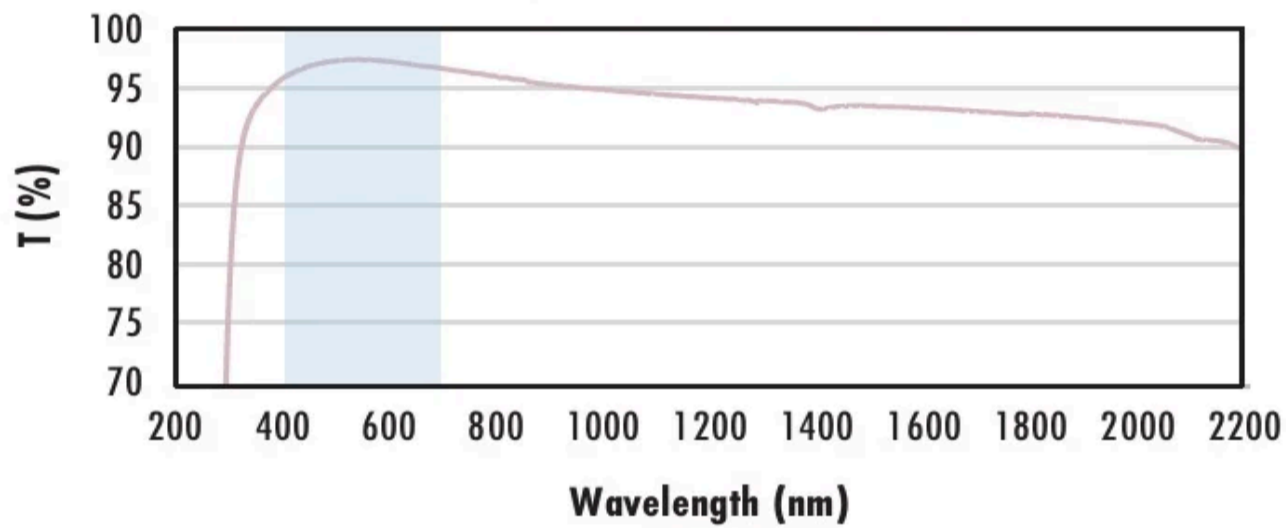
### Uncoated N-BK7 Typical Transmission



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



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

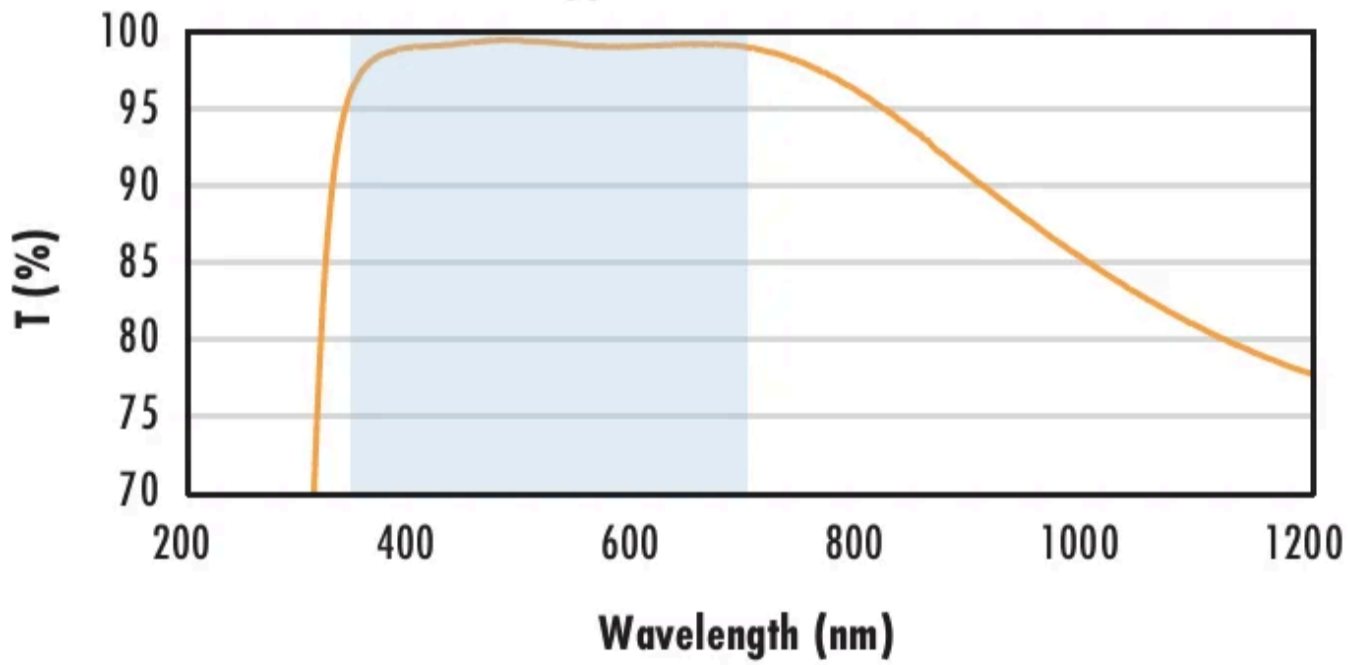
The blue shaded region indicates the coating design wavelength range, with the following specification:

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

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 w VIS-EXT (350-700nm) coating at 0° AOI.

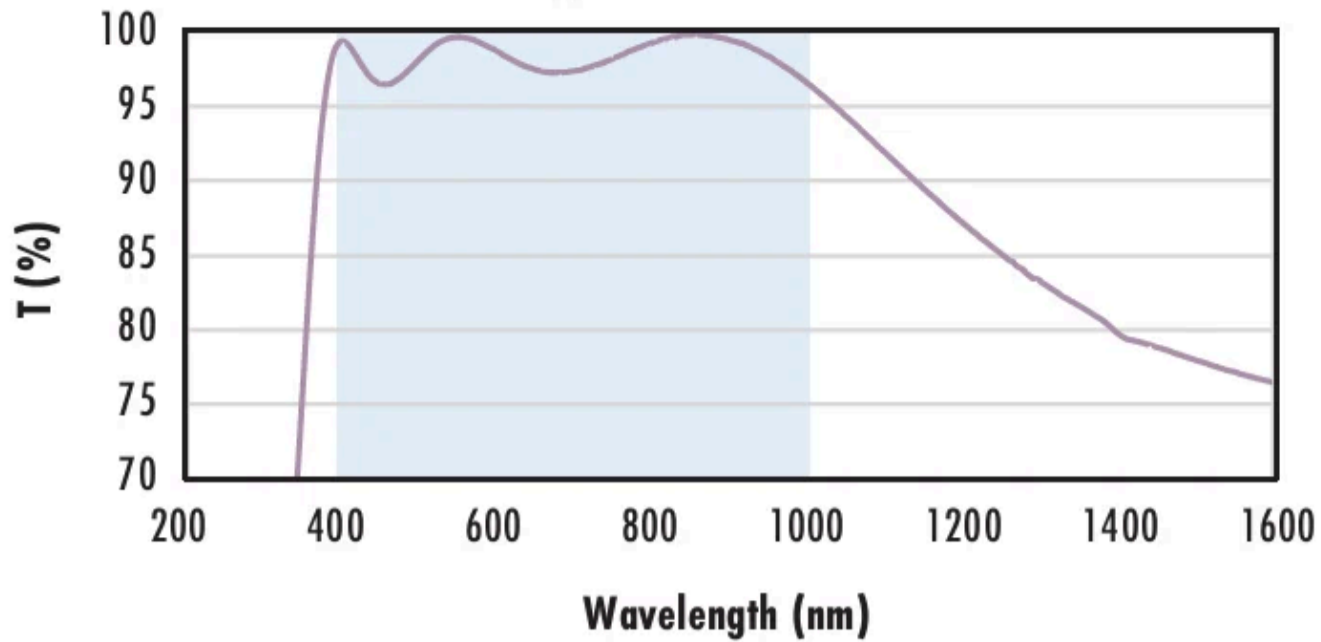
The blue shaded region indicates the coating design wavelength range, with the following specification:

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

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

[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 at 0° AOI.

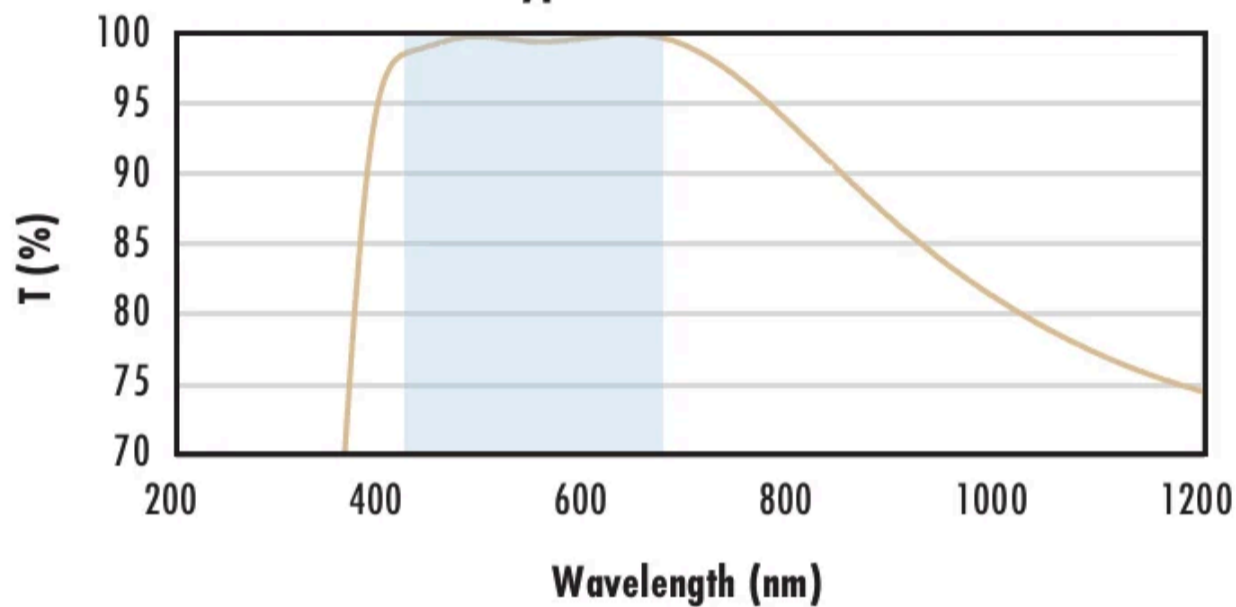
The blue shaded region indicates the coating design wavelength range, with the following specification:

- $R_{abs} \leq 0.25\% @ 880nm$
- $R_{avg} \leq 1.25\% @ 400 - 870nm$
- $R_{avg} \leq 1.25\% @ 890 - 1000nm$

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 0° (425-675nm) coating at 0° AOI.

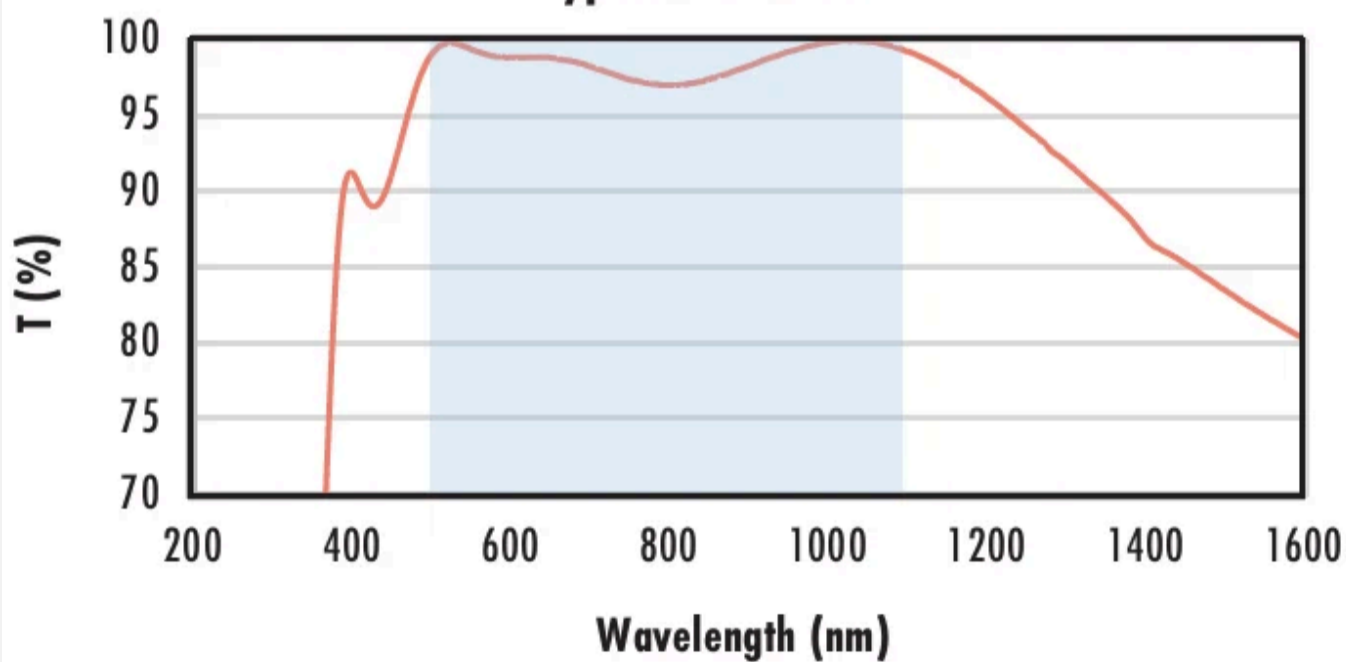
The blue shaded region indicates the coating design wavelength range, with the following specification:

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

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

[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:

- $R_{abs} \leq 0.25\% @ 532nm$
- $R_{abs} \leq 0.25\% @ 1064nm$
- $R_{avg} \leq 1.0\% @ 500 - 1100nm$

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 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



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:

$$R_{abs} \leq 1.5\% \text{ @ } 750 - 800\text{nm}$$

$$R_{abs} \leq 1.0\% \text{ @ } 800 - 1550\text{nm}$$

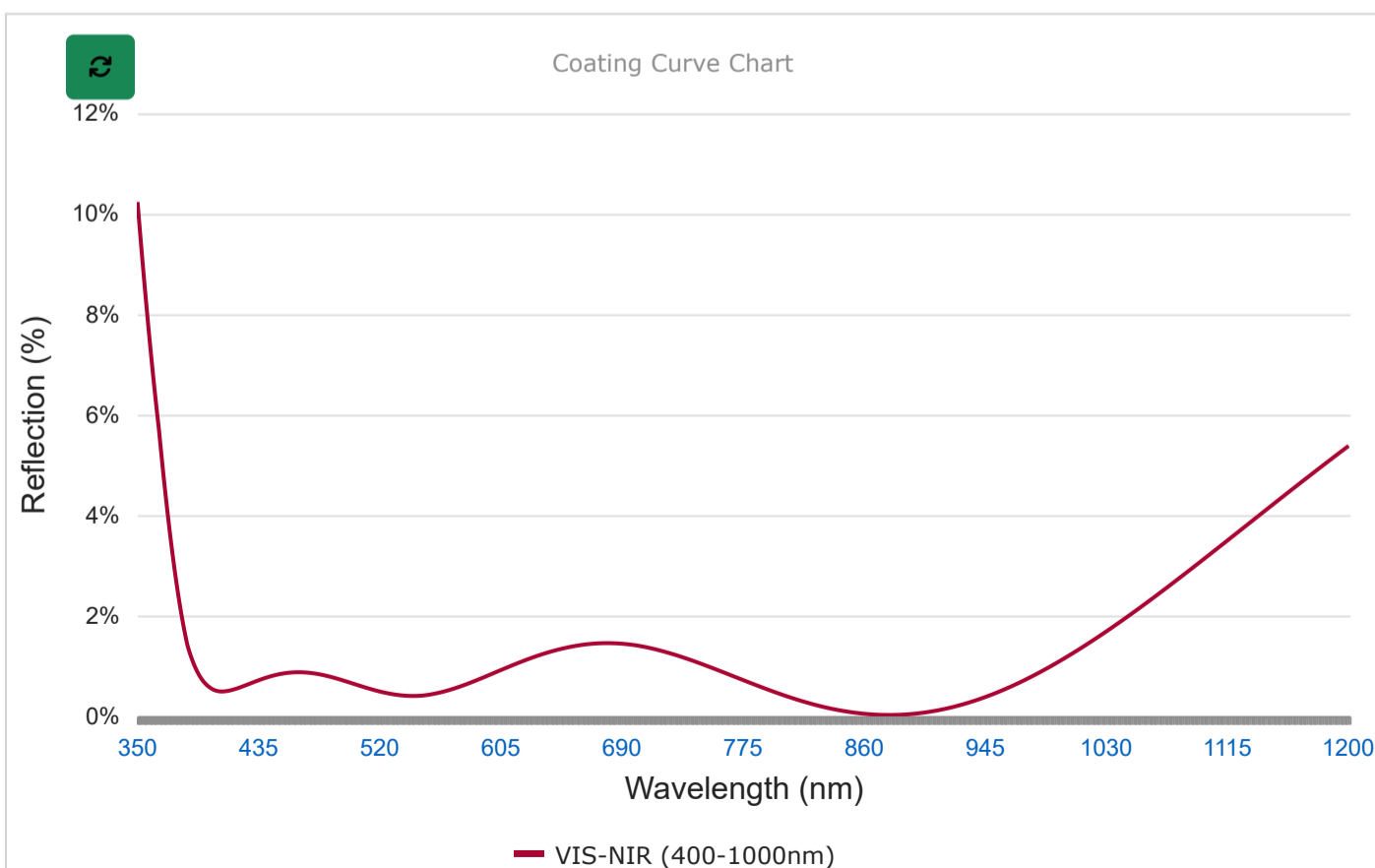
$$R_{avg} \leq 0.7\% \text{ @ } 750 - 1550\text{nm}$$

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

[Click Here to Download Data](#)

## Coating Curves

VIS-NIR (400-1000nm)



SHIFT + SELECT an area on CURVE to zoom

## Related Products



Rotation Kinematic Mounts

## Frequently Purchased Together



#03-668 - 2.0 - 35.0mm Optic Dia., Three-Screw Adjustable Ring Mount  
₹6,357

Qty



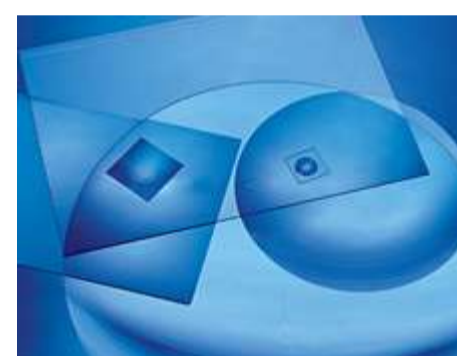
#06-391 - 4mm Dia x 16mm FL Commercial Grade Achromatic Lens  
₹2,119

Qty



#32-306 - Achromatic Lens 6.25mm Dia. x 35mm FL, Uncoated  
₹1,270

Qty



#32-681 - 2.5" x 2.5", 5" Focal Length, Fresnel Lens  
₹5,095

Qty



## Resources

### Media Type

- Application Note
- Video
- FAQ
- Glossary

APPLICATION NOTE

Anti-Reflection (AR) Coatings

APPLICATION NOTE

An Introduction to Optical Coatings

VIDEO

Optical Prisms Review

FAQ

I'd like to adhere two prisms together. ho...

GLOSSARY

Dove Prism

GLOSSARY

Equilateral (Dispersing) Prism

View More

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