

**TECHSPEC®**

# 5mm Dia., 2mm Thick, VIS-NIR AR Coated Sapphire Window



Stock #25-396 **5 In Stock**

1 MRP ₹5,993

Price inclusive of all taxes

**ADD TO CART**

Volume Pricing	
Qty 1-24	₹5,993 each
Qty 25-50	₹4,568 each
Qty 51-99	₹4,496 each
Need More?	<a href="#">Request Quote</a>

Product Downloads

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

## General

**Type:** Protective Window

## Physical & Mechanical Properties

<b>Clear Aperture CA (mm):</b> 4.50	<b>Diameter (mm):</b> 5.00 ±0.05
<b>Thickness (mm):</b> 2.00 ±0.05	<b>Parallelism (arcmin):</b> ≤3.5
<b>Bevel:</b> Protective as needed	<b>Clear Aperture (%):</b> ≥90
<b>Edges:</b> Fine Ground	<b>Poisson's Ratio:</b> 0.27
<b>Young's Modulus (GPa):</b> 435	<b>Knoop Hardness (kg/mm<sup>2</sup>):</b> 1,900.00

## Optical Properties

<b>Coating:</b> VIS-NIR (400-1000nm)	<b>Substrate:</b> Sapphire (Al <sub>2</sub> O <sub>3</sub> )
<b>Index of Refraction (n<sub>d</sub>):</b> 1.77	<b>Surface Quality:</b> 80-50
<b>Abbe Number (v<sub>d</sub>):</b> 72.24	<b>Birefringence (n<sub>o</sub>-n<sub>e</sub>):</b> 0.008 for Visible Light Orthogonal to Optical Axis
<b>Axis Orientation:</b> Random	<b>Coating Specification:</b> R <sub>avg</sub> ≤0.25% @ 880nm R <sub>avg</sub> ≤1.25% @ 400 - 870nm R <sub>avg</sub> ≤1.25% @ 890 - 1000nm

<b>Wavelength Range (nm):</b>	400 - 1000	<b>Surface Flatness (P-V):</b>	2λ (typical)
<b>Material Properties</b>			
<b>Density (g/cm<sup>3</sup>):</b>	3.97	<b>Coefficient of Thermal Expansion CTE (10<sup>-6</sup>/°C):</b>	5.4 (Parallel to C-Axis) 4.3 (Perpendicular to C-Axis)
<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>	Switzerland	<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

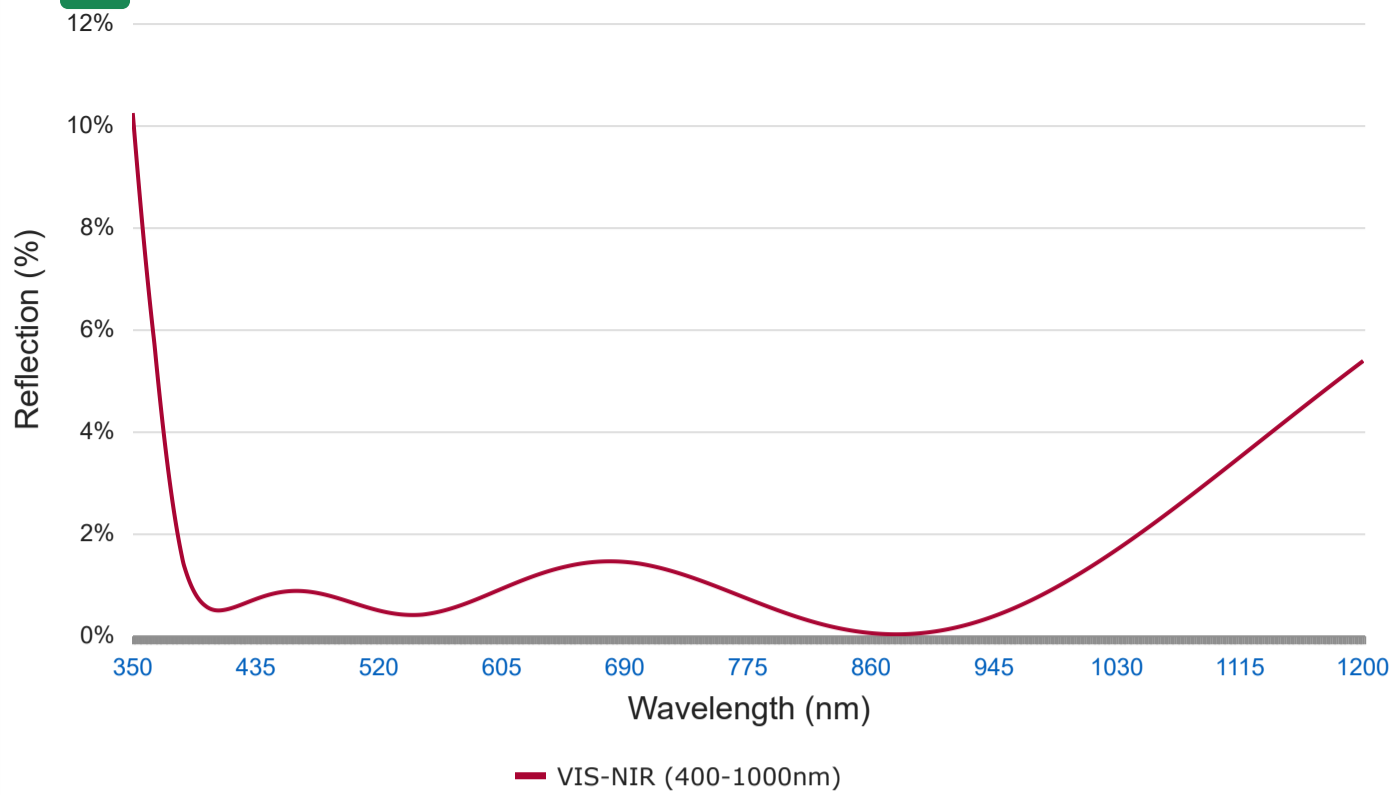
- Features Extreme Surface Hardness Chemical Resistance
- Transmits Wavelengths Ranging From UV to Mid-Infrared
- Thinner and Stronger than Standard Glass Windows
- Anti-Reflection Coating Options Covering 350 - 5000nm Available

TECHSPEC® Sapphire Windows are manufactured from single crystal sapphire, making them ideal for demanding applications (such as laser systems) because of their extreme surface hardness, high thermal conductivity, high dielectric constant and resistance to common chemical acids and alkalis. Sapphire is the second hardest crystal next to **diamond** and, because of their structural strength, sapphire windows can be made much thinner than other common windows with improved transmittance. Chemically, sapphire is single crystal aluminum oxide (Al<sub>2</sub>O<sub>3</sub>) and is useful in a transmission range from UV to mid-infrared or 330 - 5500nm when uncoated. TECHSPEC® Sapphire Windows are available with anti-reflection (AR) coatings to improve performance in the visible, NIR, and IR spectra with coating options covering 350 - 5000nm.

## Technical Information

## Coating Curves

VIS-NIR (400-1000nm)



SHIFT + SELECT an area on CURVE to zoom

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

### Related Products



Cage System Optical Lens Mounts



C, S, and T-Mount Circular Optic Mounts



PUROSOL™ Optical Cleaner

### Compatible Mounts

	Title	Type	Compare	Stock Number	Price	Buy
<a href="#">MORE+</a>	5.0mm Optic Dia., Optic Mount	Fixed		#64-551	₹3,305 <a href="#">Request Quote</a>	14 In Stock <input type="text" value="1"/>
<a href="#">MORE+</a>	5.0 - 25.0mm Optic Height, Metric Bar-Type Optic Holder	Fixed		#55-529	₹10,291 <a href="#">Request Quote</a>	20+ In Stock <input type="text" value="1"/>
<a href="#">MORE+</a>	4.0 - 36.0mm Optic Dia., Self-Centering Jaw Clamp	Fixed		#16-077	₹15,840 <a href="#">Request Quote</a>	6 In Stock <input type="text" value="1"/>
<a href="#">MORE+</a>	5.0 - 100.0mm Optic Dia., Self-Centering Jaw Clamp	Fixed		#16-078	₹41,365 <a href="#">Request Quote</a>	CONTACT US <input type="text" value="1"/>

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

# Resources

## Media Type

- Application Note
- Technical Tool
- Video
- Glossary
- FAQ

APPLICATION NOTE

Anti-Reflection  
(AR) Coatings

APPLICATION NOTE

An  
Introduction to  
Optical  
Coatings

TECHNICAL TOOL

Beam  
Displacement  
Calculator

APPLICATION NOTE

Understanding  
Optical  
Windows

VIDEO

Optical  
Windows  
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APPLICATION NOTE

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