

TECHSPEC®

20mm Dia., 3mm Thick, MgF₂ AR Coated Sapphire Window



Stock #25-390 **1 In Stock**







1 MRP ₹10,241

Price inclusive of all taxes

ADD TO CART

Volume Pricing	
Qty 1-24	₹10,241 each
Qty 25-50	₹7,848 each
Qty 51-99	₹7,657 each
Need More?	Request Quote

Product Downloads

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

General

Type: Protective Window

Physical & Mechanical Properties

Clear Aperture CA (mm):	18.00	Diameter (mm):	20.00 ±0.05
Thickness (mm):	3.00 ±0.05	Parallelism (arcmin):	≤3.5
Bevel:	Protective as needed	Clear Aperture (%):	≥90
Edges:	Fine Ground	Poisson's Ratio:	0.27
Young's Modulus (GPa):	435	Knoop Hardness (kg/mm²):	1,900.00

Optical Properties

Coating:	MgF ₂ (400-700nm)	Substrate:	Sapphire (Al ₂ O ₃)
Index of Refraction (n_d):	1.77	Surface Quality:	80-50
Abbe Number (v_d):	72.24	Birefringence (n_o-n_e):	0.008 for Visible Light Orthogonal to Optical Axis
Axis Orientation:	Random	Coating Specification:	R _{avg} ≤1.75% @ 400 - 700nm
Wavelength Range (nm):	400 - 700	Surface Flatness (P-V):	2λ (typical)

Material Properties

Density 3.97
(g/cm³):

Coefficient of Thermal Expansion CTE (10⁻⁶/°C): 5.4 (Parallel to C-Axis)
4.3 (Perpendicular to C-Axis)

Regulatory Compliance

RoHS 2015: **Compliant**

Certificate of Conformance: **View**

Reach 235: **Compliant**

Country of Origin: Switzerland

Imported By: Edmund Optics India Private Limited
267, Greystone Building,
Second Floor,
6th Cross Rd,
Binnamangala,
Stage 1,
Indiranagar,
Bengaluru,
Karnataka,
India 560038
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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

- 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 (Al₂O₃) 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

MgF₂ (400-700nm)



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

Frequently Purchased Together



#12-525 - 1064nm, 45°, 6.35mm Dia., 4mm Thick, Nd:YAG IBS Laser Line Mirror
₹15,840

Qty



#12-979 - 25.4mm Dia., 6.35mm Thick, 532nm, Nd:YAG IBS Laser Line Window
₹17,757

Qty



#16-818 - 76.2mm Dia. x 3mm Thick, 3-5µm AR Coated & DLC Coated, ISP Optics Silicon (Si) Window | DLC35-SI-W-76-3
₹1,25,104

Qty

























#17-228 - 20mm Dia., 1mm Thick, Uncoated, Sapphire Window
₹8,496

Qty



Compatible Mounts

	Title	Type	Compare	Stock Number	Price	Buy
MORE+ 	20.0mm Optic Dia., Optic Mount	Fixed		#64-559	₹3,305 Request Quote	14 In Stock <input type="text" value="1"/> 
MORE+ 	2.0 - 35.0mm Optic Dia., Three-Screw Adjustable Ring Mount	Fixed		#03-668	₹6,357 Request Quote	20+ In Stock <input type="text" value="1"/> 
MORE+ 	9.5 - 73.0mm Optic Dia., Three-Screw Adjustable Ring Mount	Fixed		#36-605	₹8,374 Request Quote	CONTACT US <input type="text" value="1"/> 
MORE+ 	5.0 - 25.0mm Optic Height, Metric Bar-Type Optic Holder	Fixed		#55-529	₹10,291 Request Quote	20+ In Stock <input type="text" value="1"/> 
MORE+ 	7.0 - 40.0 Optic Height, English Bar-Type Optic Holder	Fixed		#03-676	₹10,694 Request Quote	2 In Stock <input type="text" value="1"/> 
MORE+ 	10.0 - 60.0mm Optic Height, Metric Bar-Type Optic Holder	Fixed		#55-530	₹10,896 Request Quote	CONTACT US <input type="text" value="1"/> 
MORE+ 	19.5 - 108.0mm Optic Dia., Three-Screw Adjustable Ring Mount	Fixed		#03-670	₹11,501 Request Quote	1 In Stock <input type="text" value="1"/> 
MORE+ 	7.0 - 67.0 Optic Height, English Bar-Type Optic Holder	Fixed		#03-669	₹11,703 Request Quote	6 In Stock <input type="text" value="1"/> 
MORE+ 	8.0 - 118.0 Optic Height, English Bar-Type Optic Holder	Fixed		#03-666	₹12,107 Request Quote	10 In Stock <input type="text" value="1"/> 
MORE+ 	4.0 - 36.0mm Optic Dia., Self-Centering Jaw Clamp	Fixed		#16-077	₹15,840 Request Quote	6 In Stock <input type="text" value="1"/> 
MORE+ 	5.0 - 100.0mm Optic Dia., Self-Centering Jaw Clamp	Fixed		#16-078	₹41,365 Request Quote	CONTACT US <input type="text" value="1"/> 

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

Resources

Media Type

- Application Note
- Technical Tool
- Video

APPLICATION NOTE

Anti-Reflection (AR) Coatings

APPLICATION NOTE

An Introduction to Optical Coatings

TECHNICAL TOOL

Beam Displacement Calculator

Glossary

FAQ

 APPLICATION NOTE

Understanding
Optical
Windows

 VIDEO

Optical
Windows
Review

 APPLICATION NOTE

Optical Glass

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