TECHSPEC® 20mm Dia., 2mm Thick, MgF_2 AR Coated Sapphire Window

Stock **#36-457** **20+ In Stock**

- 1 + **€88**.00

ADD TO CART

Volume Pricing	
Qty 1-24	**€88,00** each
Qty 25-50	**€75,00** each
Qty 51-99	**€72,00** each
Need More?	Request Quote

Prices shown are exclusive of VAT/local taxes

Product Downloads

SPECIFICATIONS

General

Type:
Protective Window

Physical & Mechanical Properties

Bevel:
Protective as needed

Clear Aperture (%):
≥90

Clear Aperture CA (mm):
18.00

Diameter (mm):
20.00 ±0.10

Thickness (mm):
2.00 ±0.10

Edges:
Fine Ground

Knoop Hardness (kg/mm^2):
1,900.00

Parallelism (arcmin):
≤3.5

Poisson's Ratio:
0.27

Young's Modulus (GPa):
435

Optical Properties

Abbe Number (v_d):
72.24

Axis Orientation:
Random

Birefringence (n_o-n_e):
0.008 for Visible Light Orthogonal to Optical Axis

Coating:
MgF_2 (400-700nm)

Coating Specification:
R_{avg} ≤1.75% @ 400 - 700nm

Index of Refraction (n_d):
1.77

Substrate:
Sapphire (Al_2O_3)

Surface Flatness (P-V):
2λ (typical)

Surface Quality:
80-50

Wavelength Range (nm):
400 - 700

Material Properties

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

Density (g/cm^3):
3.97

Regulatory Compliance

RoHS 2015:
Compliant

Certificate of Conformance:
View

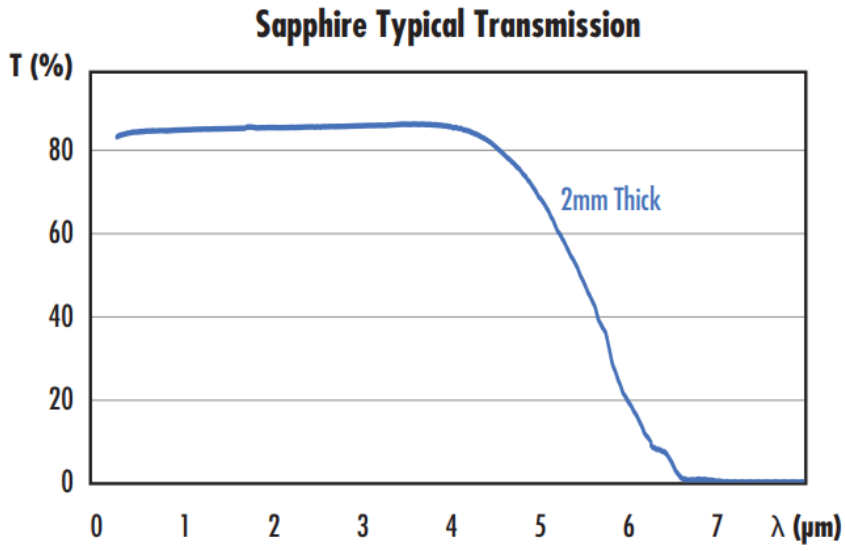
Reach 235:
Compliant

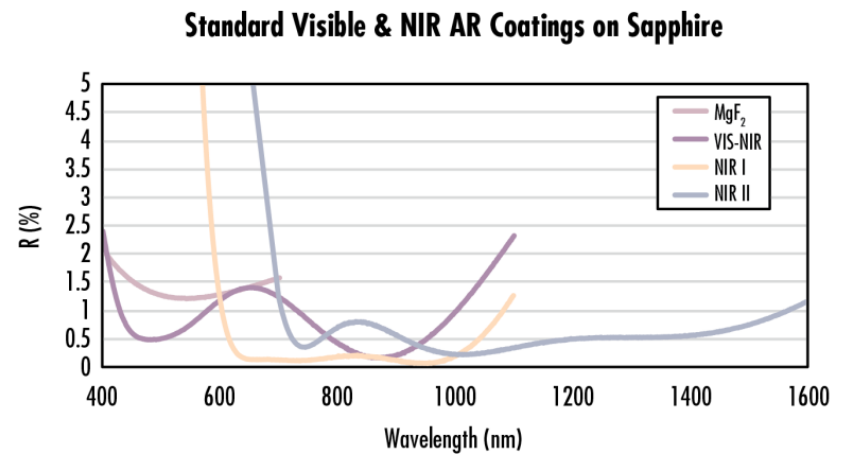
PRODUCT DETAILS

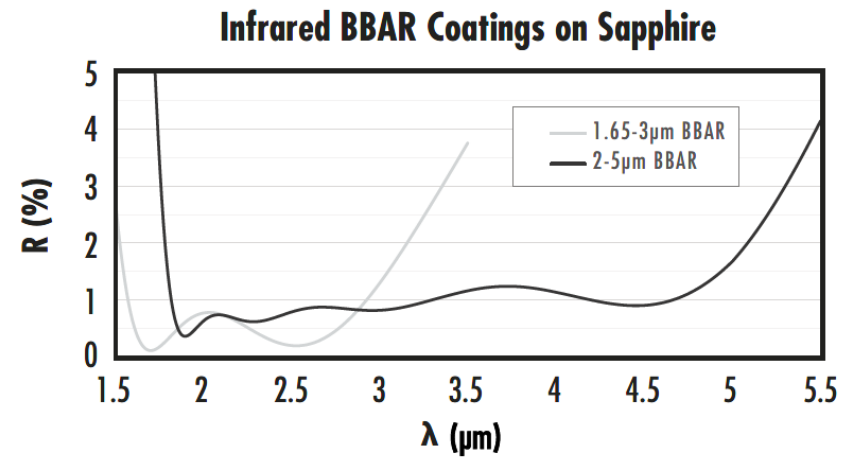
- Features Extreme Surface Hardness Chemical Resistance
- Transmits Wavelengths Ranging From UV to Mid-Infrared
- Thinner and Stronger than Standard Glass Windows
- Anti-Reflection Coating Options Covering 350 - 5000nm Available

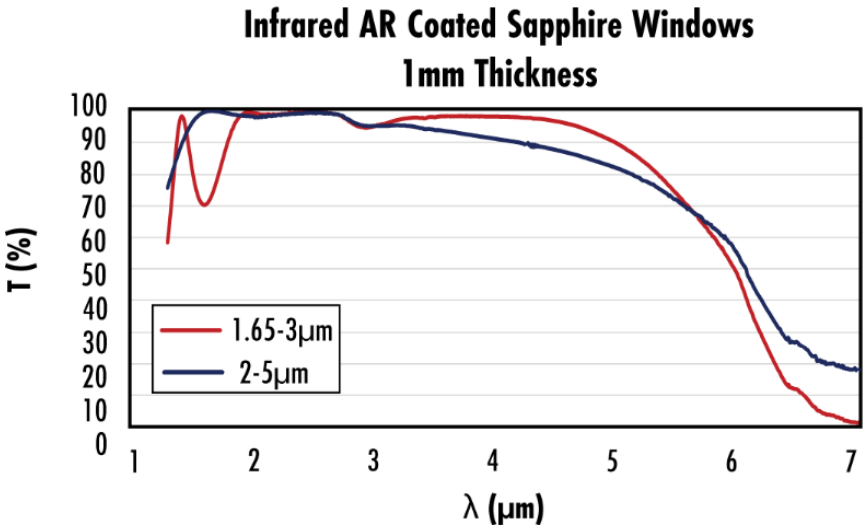
TECHSPEC® Sapphire Windows are manufactured from single crystal sapphire, making them ideal for demanding applications (such as laser systems) because of their extreme surface hardness, high thermal conductivity, high dielectric constant and resistance to common chemical acids and alkalis. Sapphire is 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

CUSTOM

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.**

COMPATIBLE MOUNTS