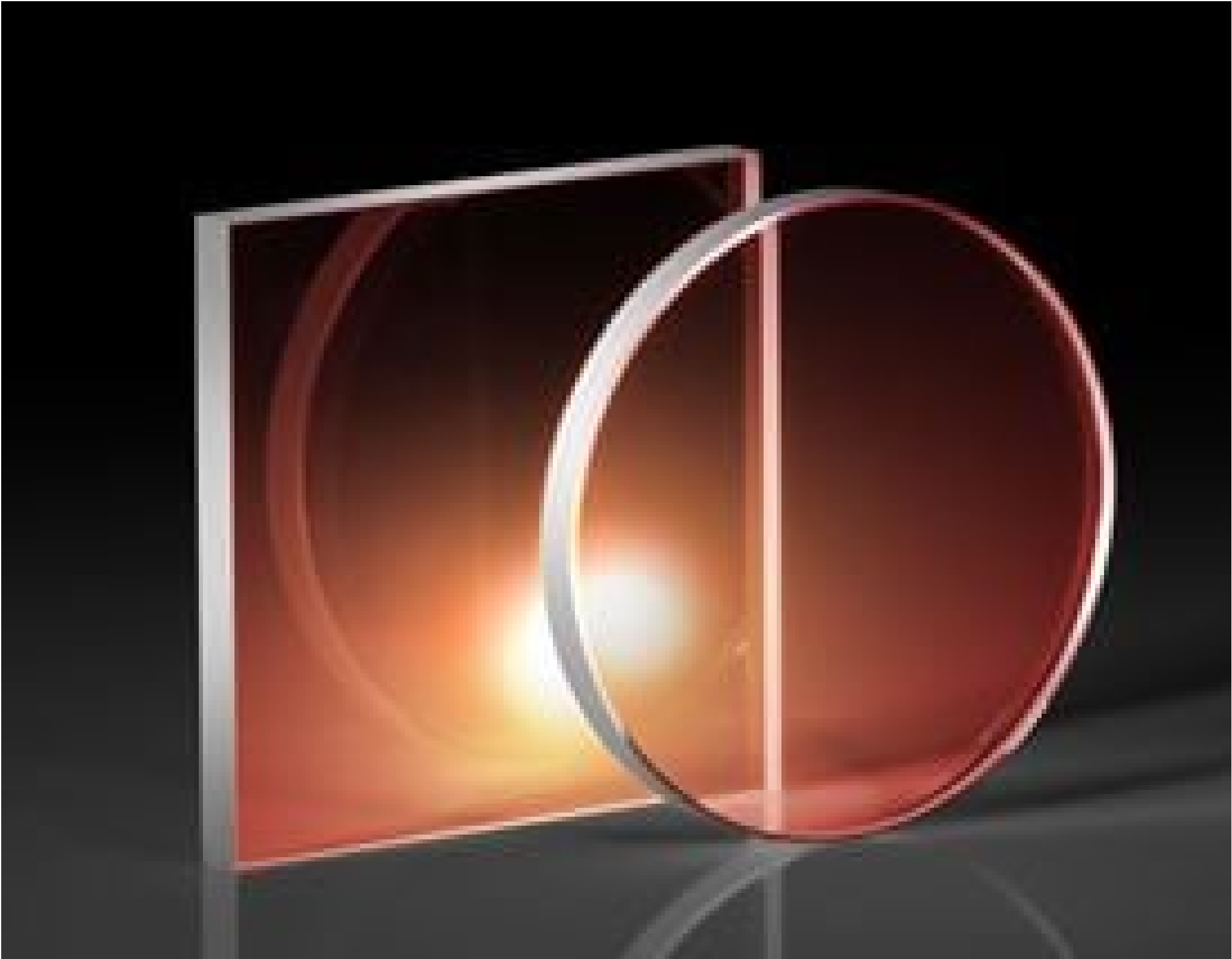


[See all 16 Products in Family](#)

TECHSPEC<sup>®</sup> 50 x 50mm Dia., 3.18mm Thick, 1 Side VIS-NIR Sapphire Window



Single-Side AR-Coated Sapphire Windows

Stock **#90-044** NEW **1 In Stock**

-

1

+

₹45,240

ADD TO CART

| Volume Pricing |                               |
|----------------|-------------------------------|
| Qty 1-24       | ₹45,240 each                  |
| Qty 25-50      | ₹36,192 each                  |
| Qty 51-99      | ₹33,930 each                  |
| Need More?     | <a href="#">Request Quote</a> |

Product Downloads

General

Type:

Protective Window

Physical & Mechanical Properties

Clear Aperture CA (mm):

45 x 45

Dimensions (mm):

50.0 x 50.0 ±0.15

|                      |                          |
|----------------------|--------------------------|
| 3.18 ±0.05           | Thickness (mm):          |
| 50.00                | Length (mm):             |
| 50.00                | Width (mm):              |
| ≤3.5                 | Parallelism (arcmin):    |
| Protective as needed | Bevel:                   |
| 90                   | Clear Aperture (%):      |
| Fine Ground          | Edges:                   |
| 0.27                 | Poisson's Ratio:         |
| 435                  | Young's Modulus (GPa):   |
| 1,900.00             | Knoop Hardness (kg/mm²): |

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

|                     |                                                              |
|---------------------|--------------------------------------------------------------|
| Material Properties |                                                              |
| 3.97                | Density (g/cm³):                                             |
| 8.8                 | Coefficient of Thermal Expansion CTE (10 <sup>-6</sup> /°C): |

|                                     |                             |
|-------------------------------------|-----------------------------|
| Regulatory Compliance               |                             |
| <a href="#">View</a>                | Certificate of Conformance: |
| Switzerland                         | Country of Origin:          |
| Edmund Optics India Private Limited | Imported By:                |

## Product Details

- Combines the High Transmission of an AR-Coating with the Ruggedness of Sapphire
  - Ideal for Applications Where High Environmental Resistance is Required
  - Uncoated Surface can Withstand Intensive Cleaning and Abrasion
- TECHSPEC® Single-Side AR-Coated Sapphire Windows feature a durable single-crystal sapphire substrate with an Anti-Reflection coating on one side for improved performance. The single-surface coating combines the benefits of higher transmission with the hardness, strength, and chemical resistance of sapphire. These windows are available in VIS-NIR (400-1000nm) or VIS-EXT (350-700nm) single-sided coating options. TECHSPEC® Single-Side AR-Coated Sapphire Windows can be used with the uncoated surface facing outwards to resist abrasion or harsh chemicals, ensuring the coated surface is not exposed to conditions that may cause damage and reduce performance. These windows are ideal for applications in food or healthcare where intensive cleaning is necessary.