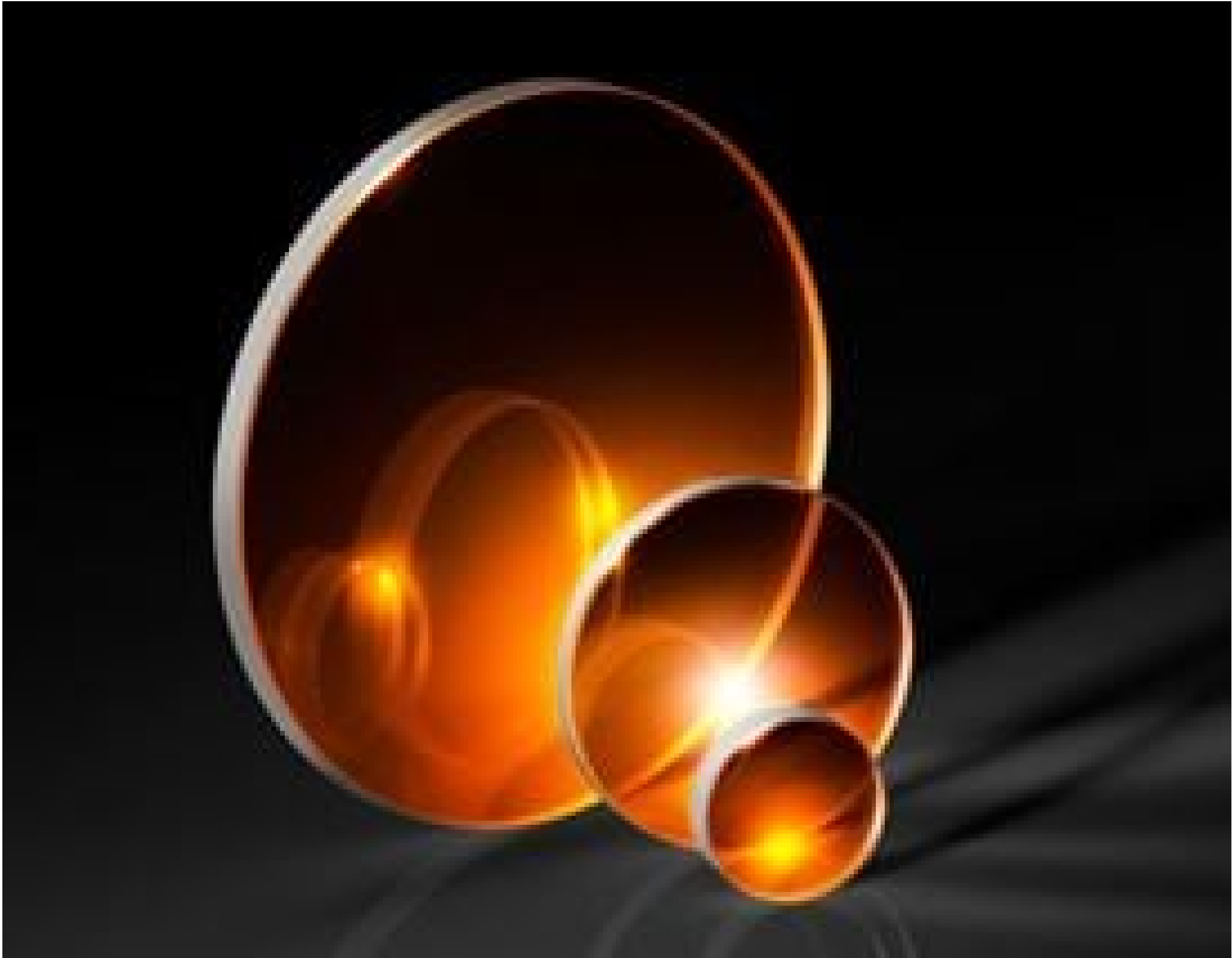


# 50.8mm Dia., 3.18mm Thick, BBAR (1000-1100nm), Laser Grade C-Axis Sapphire Window



Laser Grade C-Axis Sapphire Windows

Stock **#15-808** 20+ In Stock

-

1

+

S\$1,330<sup>00</sup>

ADD TO CART

| Volume Pricing |                               |
|----------------|-------------------------------|
| Qty 1-10       | S\$1,330.00 each              |
| Qty 11+        | S\$1,197.00 each              |
| Need More?     | <a href="#">Request Quote</a> |

Product Downloads

General

Type:

Protective Window

Physical & Mechanical Properties

Clear Aperture CA (mm):

45.00

Diameter (mm):

50.80 +0.00/-0.10

Thickness (mm):

|                      |                          |
|----------------------|--------------------------|
| 3.18 ±0.20           |                          |
| <3                   | Parallelism (arcmin):    |
| Protective as needed | Bevel:                   |
| Fine Ground          | Edges:                   |
| 0.27                 | Poisson's Ratio:         |
| 435                  | Young's Modulus (GPa):   |
| 1,900.00             | Knoop Hardness (kg/mm²): |

|                                                                                  |                                                  |
|----------------------------------------------------------------------------------|--------------------------------------------------|
| Optical Properties                                                               |                                                  |
| BBAR (1000-1100nm)                                                               | Coating:                                         |
| Sapphire (Al <sub>2</sub> O <sub>3</sub> )                                       | Substrate: <input type="checkbox"/>              |
| 1.77                                                                             | Index of Refraction (n <sub>d</sub> ):           |
| 10-5                                                                             | Surface Quality:                                 |
| <i>λ</i> /10 over 25.4mm of Clear Aperture                                       | Transmitted Wavefront, P-V:                      |
| 72.24                                                                            | Abbe Number (v <sub>d</sub> ):                   |
| 0                                                                                | Birefringence (n <sub>o</sub> -n <sub>e</sub> ): |
| C-axis                                                                           | Axis Orientation:                                |
| R <sub>avg</sub> ≤0.3% @ 1000 - 1100nm<br>R <sub>avg</sub> ≤0.1% @ 1020 - 1070nm | Coating Specification:                           |
| 1000 - 1100                                                                      | Wavelength Range (nm):                           |

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

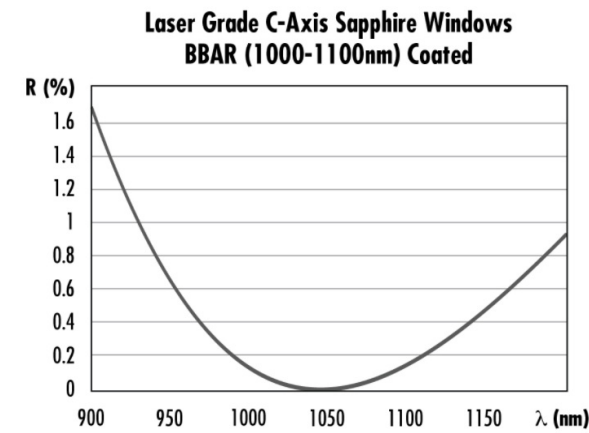
|                       |                             |
|-----------------------|-----------------------------|
| Regulatory Compliance |                             |
| <a href="#">View</a>  | Certificate of Conformance: |

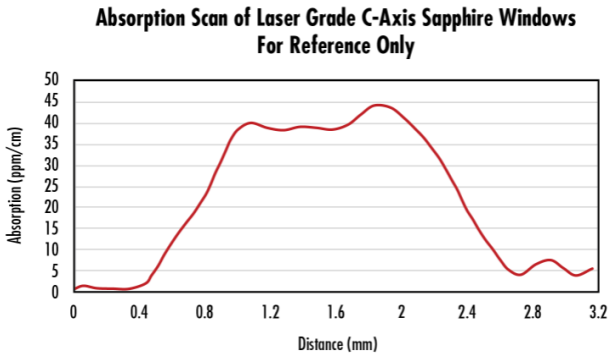
## Product Details

- C-Axis Cut Sapphire to Eliminate Birefringence
- 10-5 Surface Quality and *λ*/10 TWFD
- Uncoated or IBS AR Coated for 1000-1100nm
- Ideal for High Power Laser Applications

Laser Grade C-Axis Sapphire Windows are precision optical windows cut to the C-axis of sapphire to eliminate the inherent birefringent properties of the material. C-axis sapphire, also referred to as C-plane sapphire or zero degree sapphire, provides high transmission from the ultraviolet (UV) to the mid-infrared, excellent chemical resistance, and high surface hardness second only to diamond. Featuring laser grade 10-5 surface quality and *λ*/10 transmitted wavefront distortion (TWFD), these windows are ideal for use in laser applications or for integration into laser systems. Laser Grade C-Axis Sapphire Windows are available uncoated or with an ion-beam sputtered (IBS) antireflection (AR) coating for 1000 - 1100nm, ideal for Nd:YAG, Yb:doped fiber, or Yb:YAG laser applications. Standard imperial sizes facilitate drop-in replacement into existing laser systems; please contact us if your application requires a Laser Grade C-Axis Sapphire Window with a custom size or coating.

## Technical Information





## 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

