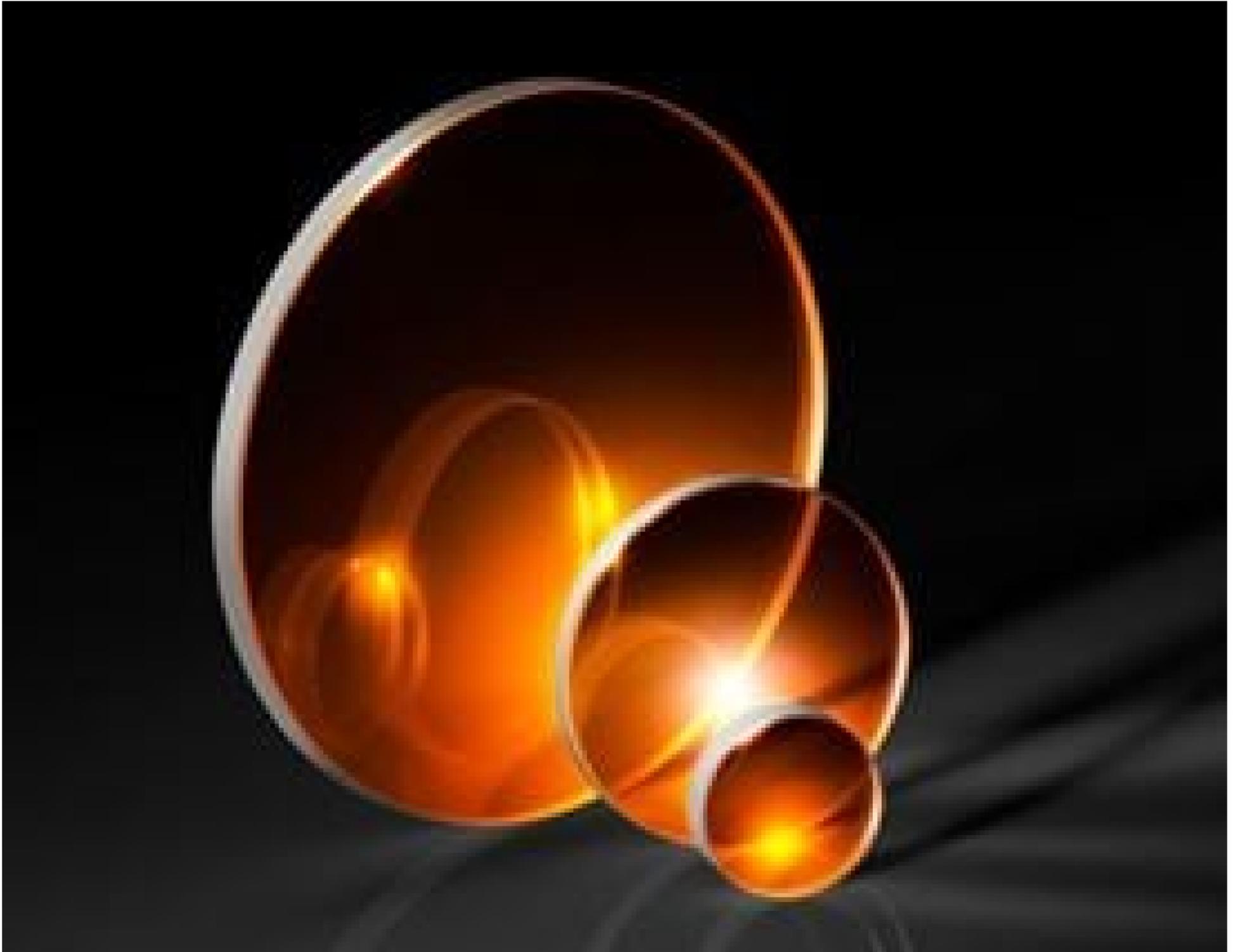


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## 50.8mm Dia., 3.18mm Thick, Uncoated, Laser Grade C-Axis Sapphire Window



Laser Grade C-Axis Sapphire Windows

Stock #15-805 **12 In Stock**

⊖ 1 ⊕ A\$1,168.<sup>00</sup>

**ADD TO CART**

Volume Pricing	
Qty 1-10	A\$1,168.00 each
Qty 11+	A\$1,056.00 each
Need More?	<a href="#">Request Quote</a>

### Product Downloads

#### General

Protective Window **Type:**

#### Physical & Mechanical Properties

45.00 **Clear Aperture CA (mm):**

50.80 +0.00/-0.10 **Diameter (mm):**

**Thickness (mm):**

3.18 ±0.20

Parallelism (arcmin):

<3

Bevel:

Protective as needed

Edges:

Fine Ground

Poisson's Ratio:

0.27

Young's Modulus (GPa):

435

Knoop Hardness (kg/mm<sup>2</sup>):

1,900.00

## Optical Properties

Coating:

Uncoated

Substrate:

Sapphire (Al<sub>2</sub>O<sub>3</sub>)

Index of Refraction (n<sub>d</sub>):

1.77

Surface Quality:

10-5

Transmitted Wavefront, P-V:

λ/10 over 25.4mm of Clear Aperture

Abbe Number (v<sub>d</sub>):

72.24

Birefringence (n<sub>o</sub>-n<sub>e</sub>):

0

Axis Orientation:

C-axis

Wavelength Range (nm):

200 - 5500

## Material Properties

Density (g/cm<sup>3</sup>):

3.97

Coefficient of Thermal Expansion CTE (10<sup>-6</sup>/°C):

8.8

## Regulatory Compliance

Certificate of Conformance:

[View](#)

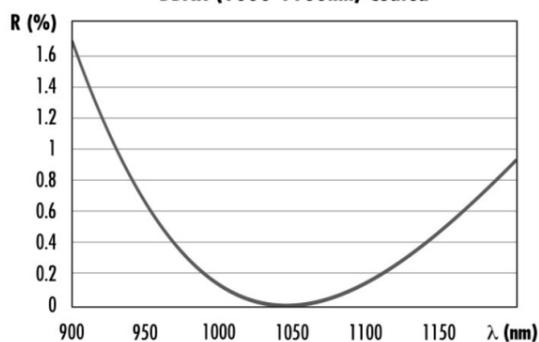
## Product Details

- 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

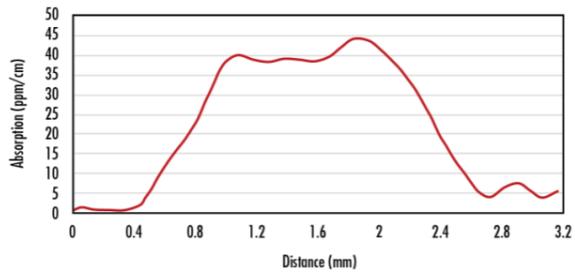
Laser Grade C-Axis Sapphire Windows are precision optical windows cut to the C-axis of sapphire to eliminate the inherent birefringent properties of the material. C-axis sapphire, also referred to as C-plane sapphire or zero degree sapphire, provides high transmission from the ultraviolet (UV) to the 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

Laser Grade C-Axis Sapphire Windows  
BBAR (1000-1100nm) Coated



**Absorption Scan of Laser Grade C-Axis Sapphire Windows  
For Reference Only**



## 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

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