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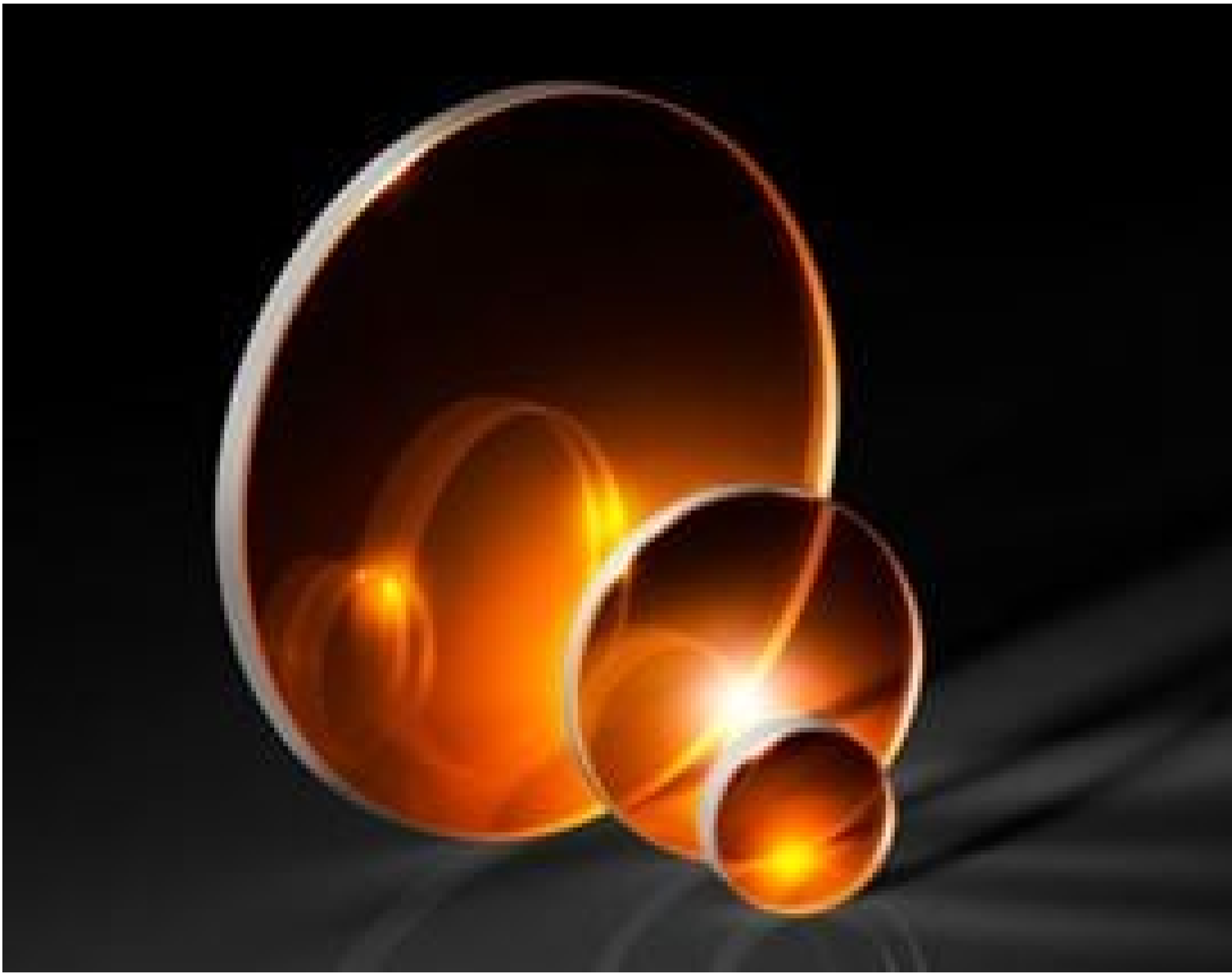
12.7mm Dia., 3.18mm Thick, BBAR (1000-1100nm), Laser Grade C-Axis Sapphire Window



Laser Grade C-Axis Sapphire Windows

Stock **#15-806** **20+ In Stock**

- 1 + **S$604.80**

ADD TO CART

Volume Pricing	
Qty 1-10	**S$604.80** each
Qty 11+	**S$544.60** each
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Product Downloads

General

Type:
Protective Window

Physical & Mechanical Properties

Clear Aperture CA (mm):
11.00

Diameter (mm):
12.70 +0.00/-0.10

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^2):

1,900.00

Optical Properties

Coating:

BBAR (1000-1100nm)

Substrate:

Sapphire (Al_2O_3)

Index of Refraction (n_d):

1.77

Surface Quality:

10-5

Transmitted Wavefront, P-V:

λ/10 over Clear Aperture

Abbe Number (v_d):

72.24

Birefringence (n_o-n_e):

0

Axis Orientation:

C-axis

Coating Specification:

R_{avg} ≤0.3% @ 1000 - 1100nm
R_{avg} ≤0.1% @ 1020 - 1070nm

Wavelength Range (nm):

1000 - 1100

Material Properties

Density (g/cm^3):

3.97

Coefficient of Thermal Expansion CTE (10^{-6}/°C):

8.8

Regulatory Compliance

Certificate of Conformance:

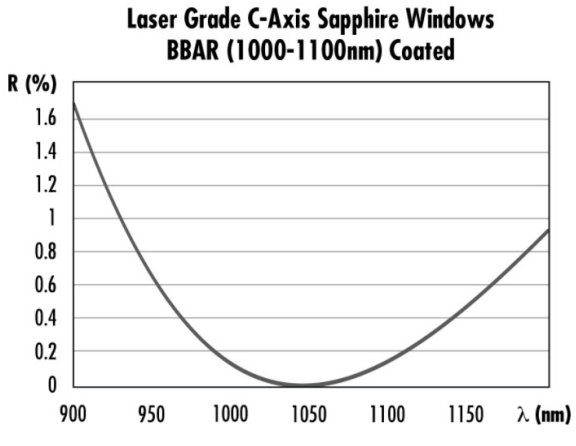
View

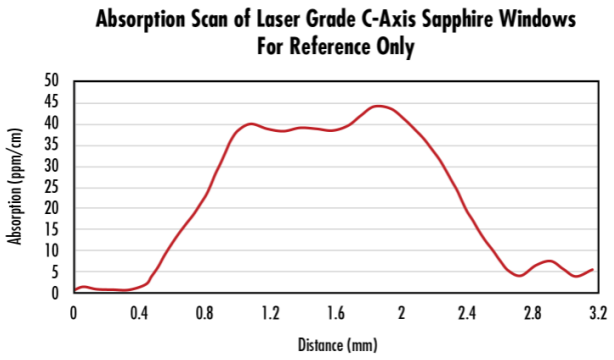
Product Details

- 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





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