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5mm Dia., 0.5mm Thick, Coherent® Uncoated Polycrystalline CVD Diamond Window

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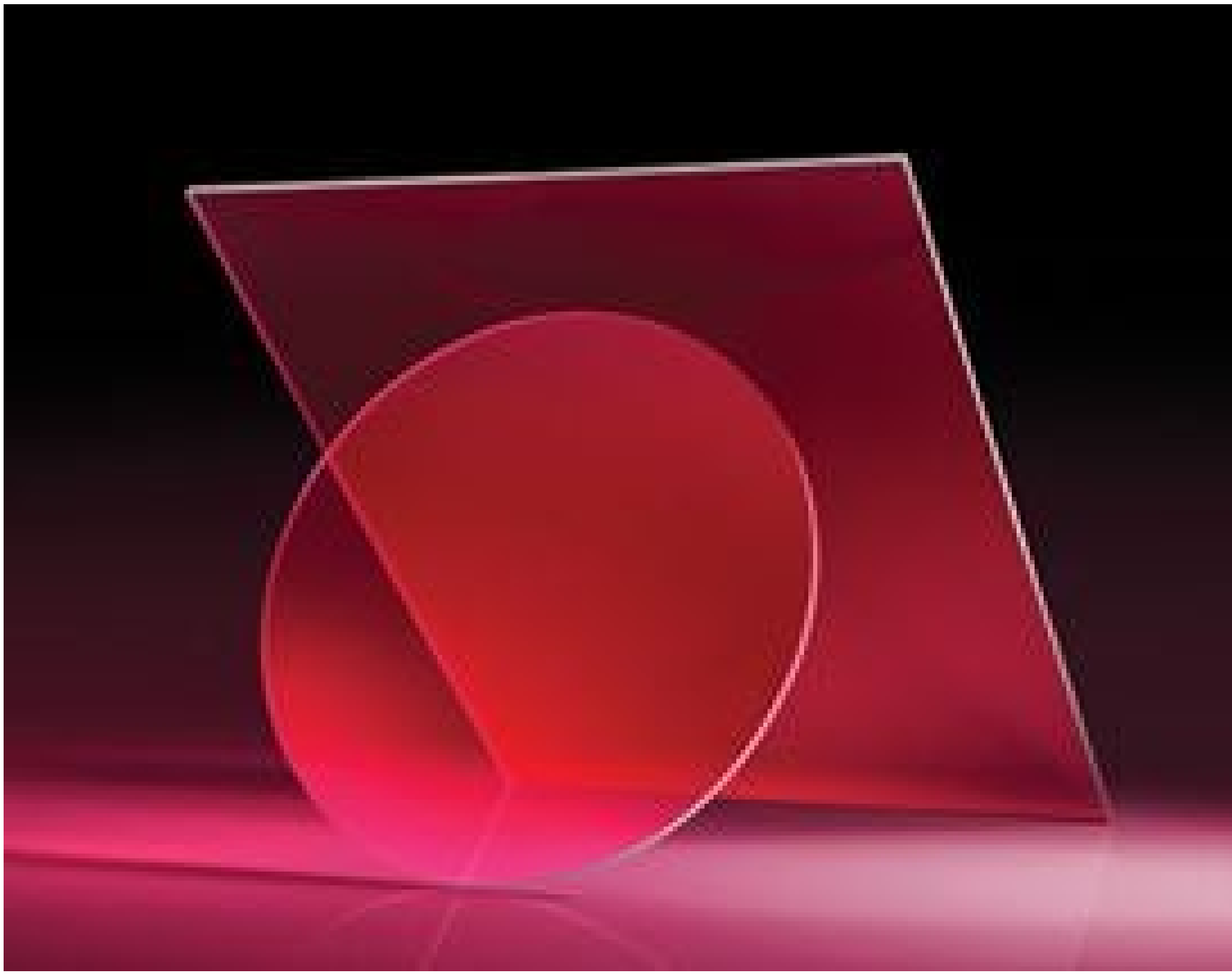

Stock **#74-070** NEW **9 In Stock**

- 1 + **€820**,00

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Volume Pricing	
Qty 1+	**€820,00** each
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Product Downloads

General

Type:

Protective Window

Physical & Mechanical Properties

Clear Aperture CA (mm):

4.50

Diameter (mm):

5.00 ±0.05

Thickness (mm):

0.50 ±0.10

Parallelism (arcmin):

<5

Bevel:

Protective as needed

Clear Aperture (%):

90

Optical Properties

Coating:

Uncoated

Substrate:

Coherent® Optical Grade Polycrystalline CVD Diamond

Index of Refraction (n_d):

2.38 @ 10.6µm

Surface Quality:

40-20

Wavelength Range (nm):

300 - 25000

Material Properties

Scatter @ 1µm (cm^{-1}):

<0.7

Bulk Absorption @ 1µm (cm^{-1}):

<1

Bulk Absorption @ 10.6µm (cm^{-1}):

<0.07

Regulatory Compliance

Certificate of Conformance:

View

Need different specs or modifications?

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.

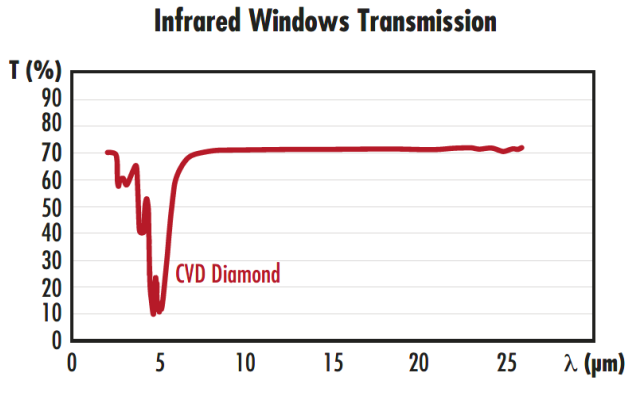
Product Details

- High Transmission Across UV, FIR, and Microwave Spectra
- High Thermal Conductivity for Use with High Power Lasers
- Exceptional Hardness for Ultimate Scratch Resistance
- Coherent® Manufactured

Coherent® Optical Grade Polycrystalline CVD Diamond Windows feature high transmission across the ultraviolet (UV), far infrared (FIR), and microwave wavelength spectra. Manufactured from plasma chemical vapor deposited diamond by Coherent®, these windows offer high-purity, uniformity, and ultimate scratch resistance. These windows also have exceptional chemical resistance and biocompatibility, enabling their use in harsh environments as well as in medical applications. Coherent® Optical Grade Polycrystalline CVD Diamond Windows are used as exit windows of high-power CO_2 lasers, offering higher thermal conductivity and lower absorption than other infrared materials to minimize effects on beam quality. Other common applications include their use as microwave windows in diamond-based nuclear detectors, general microwave engineering, and multi-spectral optic systems. Custom coating opportunities, including anti-reflection and high-reflectivity coatings, are available. Please contact us for more information.

Note: II-VI Incorporated is now Coherent Corp.

Technical Information



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