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12.5mm Dia., 0.7mm Thick, Coherent® Uncoated Polycrystalline CVD Diamond Window

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Stock #74-071 NEW **1 In Stock**

S\$4,508⁰⁰

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General

Protective Window Type:

Physical & Mechanical Properties

10.75 Clear Aperture CA (mm):

12.50 ±0.05 Diameter (mm):

0.70 ±0.10 Thickness (mm):

<5	Parallelism (arcmin):
Protective as needed	Bevel:
90	Clear Aperture (%):
Optical Properties	
Uncoated	Coating:
Coherent® Optical Grade Polycrystalline CVD Diamond	Substrate: <input type="checkbox"/>
2.38 @ 10.6µm	Index of Refraction (n_d):
40-20	Surface Quality:
300 - 25000	Wavelength Range (nm):
Material Properties	
<0.7	Scatter @ 1µm (cm⁻¹):
<1	Bulk Absorption @ 1µm (cm⁻¹):
<0.07	Bulk Absorption @ 10.6µm (cm⁻¹):
Regulatory Compliance	
View	Certificate of Conformance:

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 CO₂ 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

Infrared Windows Transmission

