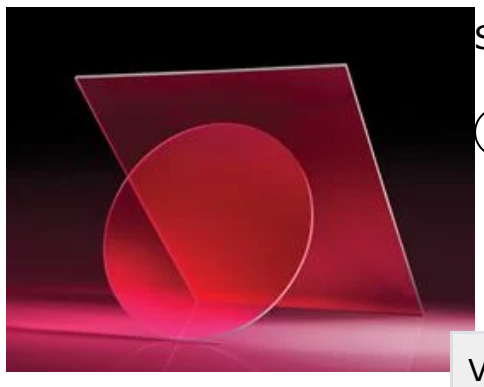
5mm Square, 0.5mm Thick, Coherent® Uncoated Polycrystalline CVD Diamond Window

See More by Coherent®



Stock #12-665 5 In Stock

- 1 +

C$910.00

ADD TO CART

Volume Pricing	
Qty 1+	C$910.00 each
Need More?	Request Quote

Product Downloads

STEP:step | Curve:pdf | PDF Drawing:pdf | IGES:igs | eDrawing:eprt | EO Spec Sheet | Download All

General

Type:	Protective Window	**Type of Window:**	Crystal

Physical & Mechanical Properties

Clear Aperture CA (mm):	4.50 x 4.50	**Dimensions (mm):**	5.00 x 5.00
Thickness (mm):	0.50 ±0.10	**Length (mm):**	5.00
Width (mm):	5.00	**Parallelism (arcmin):**	<5
Dimensional Tolerance (mm):	±0.05	**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

RoHS 2015:	**Compliant**	**Reach 224:**	**Compliant**
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.

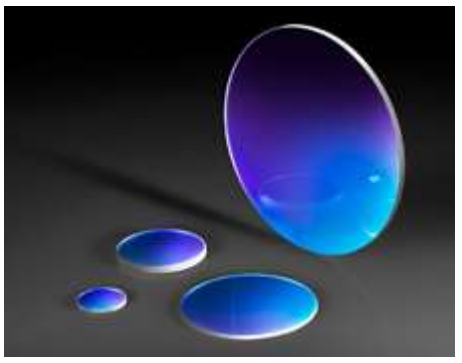
Note: II-VI Incorporated is now Coherent Corp.

Technical Information

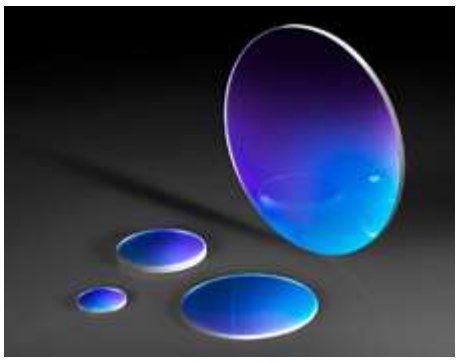
Frequently Purchased Together

#32-525 – 2mm, Uncoated, N-BK7 Right Angle Prism
C$133.70
Qty

#32-526 – 2mm, Aluminum Coated, N-BK7 Right Angle Prism
C$147.00
Qty



#43-628 – 7.5mm Dia., 0.4mm Thick, Uncoated, Sapphire Window
C$52.85
Qty



#43-632 – 13mm Dia., 0.5mm Thick, Uncoated, Sapphire Window
C$78.40
Qty

Compatible Mounts

	Title	Type	Compare	Stock Number	Price	Buy
MORE+ 	25mm sq - Rectangular Bar Clamp	Fixed		#54-994	C$151.20 Request Quote	8 In Stock 1

	Title	Type	Compare	Stock Number	Price ☐	Buy
MORE+ 	60mm sq - Rectangular Bar Clamp	Fixed		#54-995	C$176.40 Request Quote	20+ In Stock 1

Check out our full selection of mounts **here**.

Resources

Media Type

- ☐ Application Note
- ☐ Technical Tool
- ☐ Video
- ☐ Glossary
- ☐ FAQ

APPLICATION NOTE
Anti-Reflection (AR) Coatings

APPLICATION NOTE
An Introduction to Optical Coatings

TECHNICAL TOOL
Beam Displacement Calculator

APPLICATION NOTE
Understanding Optical Windows

VIDEO
Optical Windows Review

APPLICATION NOTE
Optical Glass

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