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25.4mm Dia. x 2mm Thick, 3-5µm AR Coated & DLC Coated, ISP Optics Silicon (Si) Window | DLC35-SI-W-25-2

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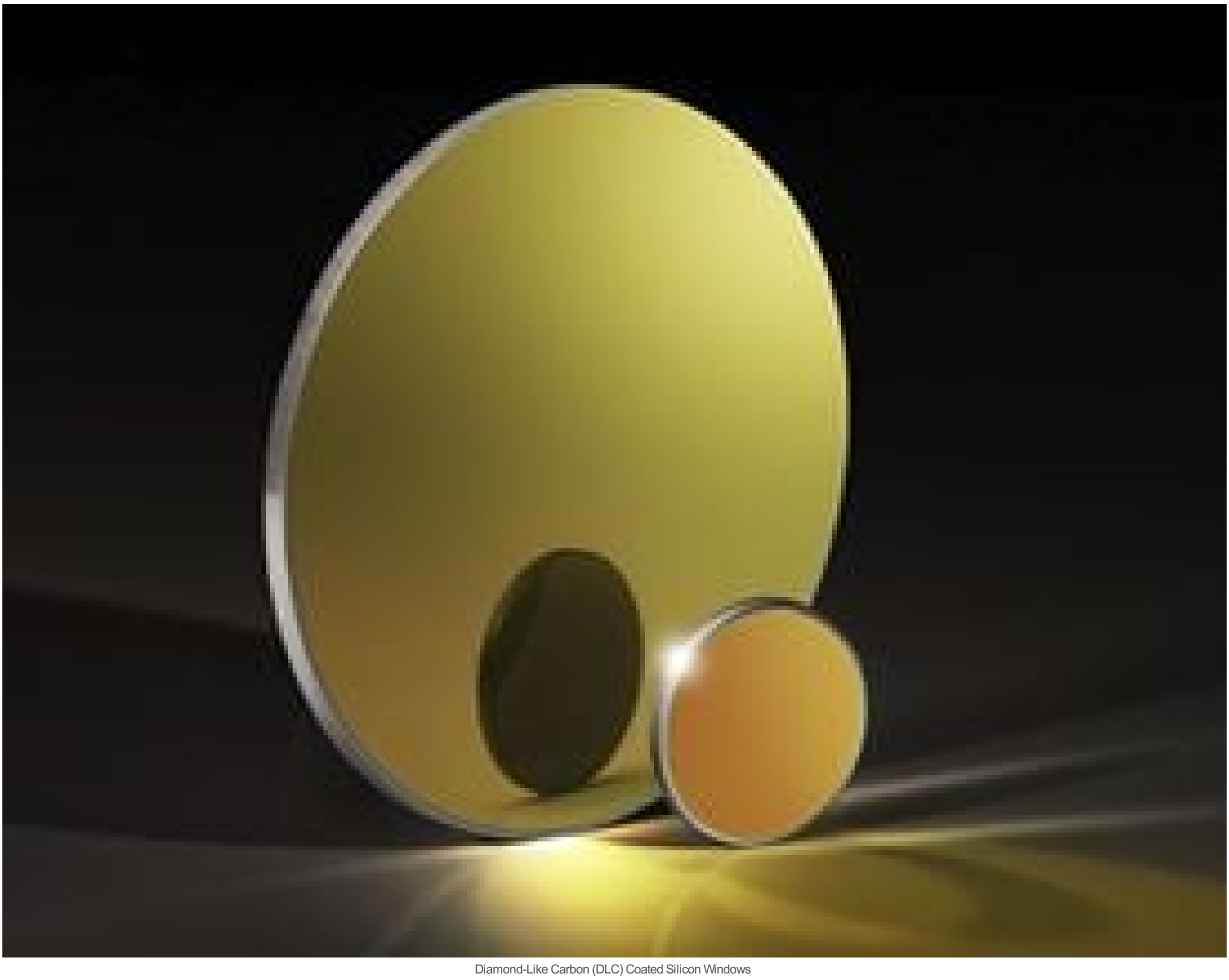

Diamond-Like Carbon (DLC) Coated Silicon Windows

Stock #16-816 CLEARANCE 1 In Stock

- 1 + €319.00

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Volume Pricing	
Qty 1+	**€319,00** each
Need More?	Request Quote

Prices shown are exclusive of VAT/local taxes

Product Downloads

General

Type:
Protective Window

Note:
Arrow on substrate edge points towards DLC coated surface

Model Number:
DLC35-SI-W-25-2

Physical & Mechanical Properties

Bevel:
Protective as needed

Clear Aperture (%):
85

Clear Aperture CA (mm):
21.59

Diameter (mm):
25.40 +0.00/-0.13

Thickness (mm):
2.00 ±0.13

Edges:
Fine Ground

Knoop Hardness (kg/mm^2):
1,150.00

Parallelism (arcmin):
<3

Optical Properties

Coating:
S1: DLC Coating
S2: BBAR (3000-5000nm)

Coating Specification:
AR: R_{avg} ≤0.5% @ 3000 - 5000nm

Substrate:
Silicon (Si)

Surface Flatness (P-V):
λ/10 @ 10.6µm

Surface Quality:
40-20

Wavelength Range (nm):
3000 - 5000

Coating Temperature (°F):
AR: -80 to +160 per MIL-C-48497C
DLC: -80 to +160 per MIL-C-48497C

Environmental & Durability Factors

Coating Abrasion:
AR: Moderate, per MIL-C-48497C
DLC: Severe, per MIL-C-48497C

Coating Adhesion:
AR: per MIL-C-48497C
DLC: per MIL-C-48497C

Coating Humidity:
AR: 24 Hours per MIL-C-48497C
DLC: 24 Hours per MIL-C-48497C

Coating Salt Solubility:
AR: N/A
DLC: ≥24 Hours Immersion per MIL-C-675C

Coating Salt Spray:
AR: N/A
≥72 Hours per MIL-C-675

Coating Solubility and Cleaning:
AR: per MIL-C-48497
DLC: per MIL-C-48497

Coating Wiper Durability:
AR: N/A
DLC: ≥1,000 Wipes of Sand/Slurry per TS-1888

Regulatory Compliance

RoHS 2015:
Compliant

Certificate of Conformance:
View

Reach 240:
Compliant

Product Details

- Meets Severe Abrasion Requirements of MIL-F-48616 and MIL-C-48497C
- High Transmission from 3 – 5µm
- Ideal for Harsh Environments
- **Diamond-Like Carbon (DLC) Coated Germanium Windows** Also Available

ISP Optics Diamond-Like Carbon (DLC) Coated Silicon Windows provide anti-reflection coating on one surface and a specially designed DLC coating on the other surface, making these windows highly durable and ideal for harsh environments. The DLC Coated surface is designed to withstand temperature cycling from -80 to +160°F, salt spray for a continuous period of 72 hours, and 1,000 wiper oscillations in a sand and slurry mixture. Further, these windows meet the MIL-F-48616 and MIL-C-48497C requirements for severe abrasion. Silicon features a Knoop Hardness of 1150 and low density, making it tougher than germanium substrates and suitable for weight-sensitive applications, respectively. ISP Optics Diamond-Like Carbon (DLC) Coated Silicon Windows are engineered for 3 to 5µm, making them ideal for infrared defense applications such as thermal imaging.

Technical Information

Specification	AR Coating	DLC Coating
Adhesion	per MIL-C-48497C	per MIL-C-48497C
Abrasion	Moderate, per MIL-C-48497C	Severe, per MIL-C-48497C
Humidity	24 Hours per MIL-C-48497C	24 Hours per MIL-C-48497C
Salt Solubility	-	≥24 Hours Immersion per MIL-C-675C
Salt Spray	-	≥72 Hours per MIL-C-675
Temperature (°F)	-80 to +160 per MIL-C-48497C	-80 to +160 per MIL-C-48497C
Solubility and Cleaning	per MIL-C-48497	per MIL-C-48497
Wiper	-	≥1,000 Wipes of Sand/Slurry per TS-1888
Coating Temperature (°F)	-80 to +160 per MIL-C-48497C	-80 to +160 per MIL-C-48497C

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.**