

50mm Dia., 3mm Thick, 400-1100nm HDAR Coated Fused Silica Window



Stock **#29-981** 8 In Stock

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€360^{,00}

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Volume Pricing	
Qty 1-5	€360,00 each
Qty 6-25	€288,00 each
Qty 26-49	€270,00 each
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Product Downloads

General

Protective Window

Type:

Physical & Mechanical Properties

45.00

Clear Aperture CA (mm):

50.00 +0.00/-0.20

Diameter (mm):

3.00 ±0.10	Thickness (mm):
Protective as needed	Bevel:
90	Clear Aperture (%):
Fine Ground	Edges:
<5	Parallelism (arcsec):
0.16	Poisson's Ratio:
73	Young's Modulus (GPa):
522.00	Knoop Hardness (kg/mm²):

Optical Properties

Hardened VIS-NIR (400-1100nm)	Coating:
Fused Silica	Substrate: □
1.458	Index of Refraction (n _d):
20-10	Surface Quality:
λ/10	Transmitted Wavefront, P-V:
67.8	Abbe Number (v _d):
R _{avg} <1.5% @ 400 - 1100nm R _{abs} <2.0% @ 400 - 1100nm	Coating Specification:
400 - 1100	Wavelength Range (nm):
-80 to +160 per MIL-M-13508C Paragraph 4.4.4	Coating Temperature (°F):

Material Properties

2.20	Density (g/cm³):
0.52 (+5 to +35°C) 0.57 (0 to +200°C) 0.48 (-100 to +200°C)	Coefficient of Thermal Expansion CTE (10 ⁻⁶ /°C):
7980 0G	Fused Silica Grade:

Environmental & Durability Factors

Severe, per MIL-C-675C Paragraph 4.5.10	Coating Abrasion:
Per MIL-M-13508C Paragraph 4.4.6	Coating Adhesion:
≥24 Hours per MIL-C-675C paragraph 4.5.8	Coating Humidity:
≥24 Hours per MIL-C-675C paragraph 4.5.9	Coating Salt Spray:
≥24 Hours Immersion per MIL-C-675C paragraph 4.5.7	Coating Salt Solubility:

Regulatory Compliance

View	Certificate of Conformance:
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Product Details

- HDAR Coating Achieves Severe Abrasion Requirements of MIL-C-675C
- Low Reflectivity Across the VIS-NIR
- Ideal for Use in Harsh Environments
- Uncoated Fused Silica Windows Also Available

High Durability Anti-Reflection (HDAR) Coated Fused Silica Windows feature precision fused silica substrates with rugged HDAR coatings where frequent handling or cleaning are required. Similar to [diamond-like carbon \(DLC\) coatings](#), the HDAR coatings are designed to withstand temperature cycling from -80 to +160°F, high humidity for 24 hours, salt spray for a continuous period of 24 hours, and salt solubility for an immersion period of 24 hours. These coatings are deposited on fused silica which has excellent mechanical and thermal stability, ensuring high performance even in harsh environments. High Durability Anti-Reflection (AR) Coated Fused Silica Windows are ideal for aerospace, defense, and industrial applications, as well as any optical application requiring durable protective windows.

