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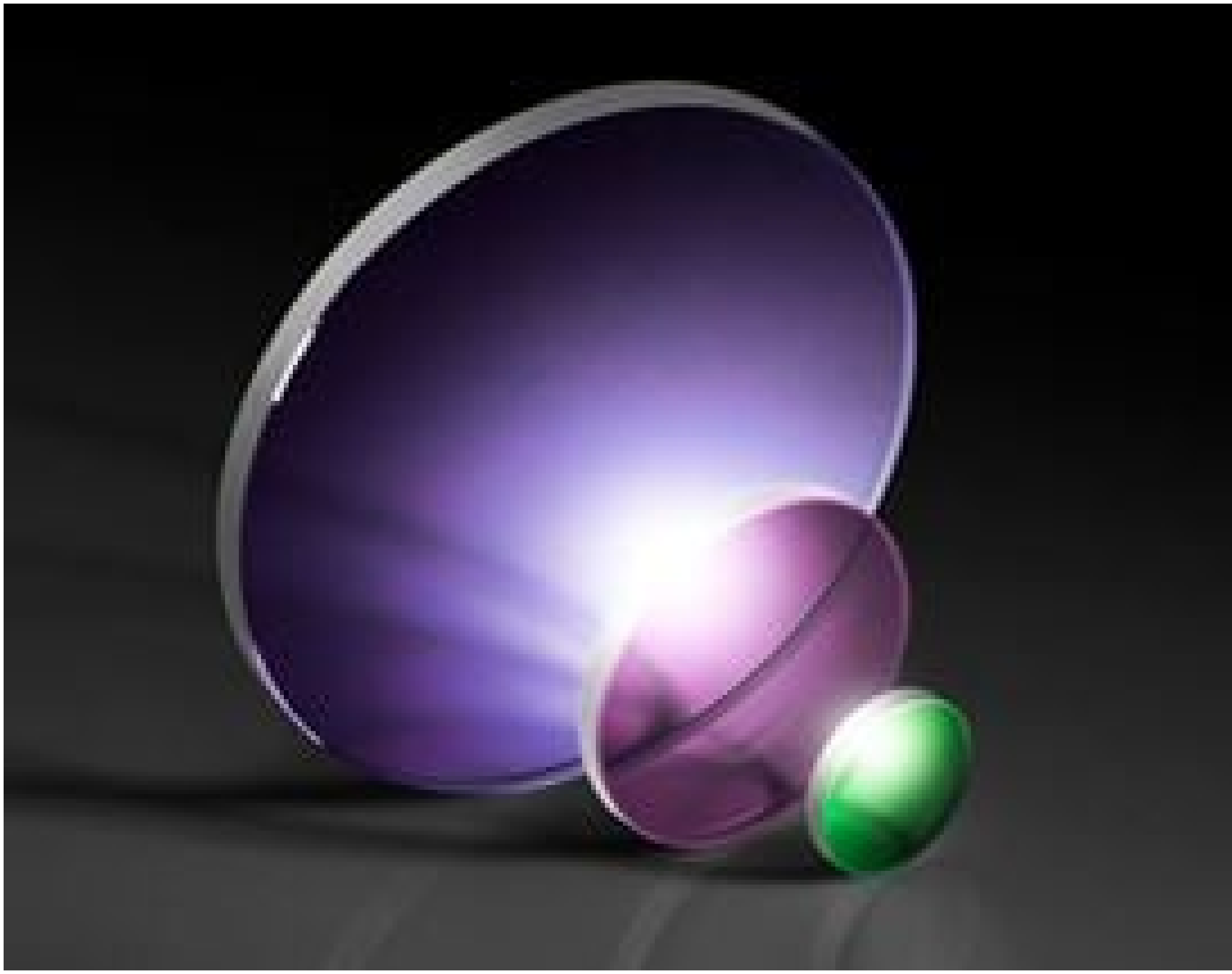
12.5mm Dia., 1.5mm Thick, 400-1100nm HDAR Coated Fused Silica Window



Stock **#29-976** **20+ In Stock**

- 1 + **S$296.80**

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Volume Pricing	
Qty 1-5	**S$296.80** each
Qty 6-25	**S$236.60** each
Qty 26-49	**S$222.60** each
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Product Downloads

General

Type:
Protective Window

Type of Window:
Glass

Physical & Mechanical Properties

Clear Aperture CA (mm):
10.00

Diameter (mm):
12.50 +0.00/-0.20

Thickness (mm):
1.50 ±0.10

Bevel:
Protective as needed

Clear Aperture (%):
80

Edges:
Fine Ground

Parallelism (arcsec):
<5

Poisson's Ratio:
0.16

Young's Modulus (GPa):
73

Knoop Hardness (kg/mm^2):
522.00

Optical Properties

Coating:
Hardened VIS-NIR (400-1100nm)

Substrate:
Fused Silica

Index of Refraction (n_d):
1.458

Surface Quality:
20-10

Transmitted Wavefront, P-V:
λ/10

Abbe Number (v_d):
67.8

Coating Specification:
R_{avg} <1.5% @ 400 - 1100nm
R_{abs} <2.0% @ 400 - 1100nm

Wavelength Range (nm):
400 - 1100

Coating Temperature (°F):
-80 to +160 per MIL-M-13508C Paragraph 4.4.4

Material Properties

Density (g/cm^3):
2.20

Coefficient of Thermal Expansion CTE (10^{-6}/°C):
0.52 (+5 to +35°C)
0.57 (0 to +200°C)
0.48 (-100 to +200°C)

Fused Silica Grade:
7980 0G

Environmental & Durability Factors

Coating Abrasion:
Severe, per MIL-C-675C Paragraph 4.5.10

Coating Adhesion:
Per MIL-M-13508C Paragraph 4.4.6

Coating Humidity:
≥24 Hours per MIL-C-675C paragraph 4.5.8

Coating Salt Spray:
≥24 Hours per MIL-C-675C paragraph 4.5.9

Coating Salt Solubility:
≥24 Hours Immersion per MIL-C-675C paragraph 4.5.7

Regulatory Compliance

Certificate of Conformance:
View

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.

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