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



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

- 1 + C\$296<sup>.80</sup>

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Volume Pricing	
Qty 1-5	C\$296.80 each
Qty 6-25	C\$236.60 each
Qty 26-49	C\$222.60 each
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### Product Downloads

### General

Protective Window **Type:**  
Glass **Type of Window:**

### Physical & Mechanical Properties

10.00 **Clear Aperture CA (mm):**

12.50 +0.00/-0.20	<b>Diameter (mm):</b>
1.50 ±0.10	<b>Thickness (mm):</b>
Protective as needed	<b>Bevel:</b>
80	<b>Clear Aperture (%):</b>
Fine Ground	<b>Edges:</b>
<5	<b>Parallelism (arcsec):</b>
0.16	<b>Poisson's Ratio:</b>
73	<b>Young's Modulus (GPa):</b>
522.00	<b>Knoop Hardness (kg/mm<sup>2</sup>):</b>

## Optical Properties

Hardened MS-NIR (400-1100nm)	<b>Coating:</b>
<a href="#">Fused Silica</a>	<b>Substrate:</b> <input type="checkbox"/>
1.458	<b>Index of Refraction (n<sub>d</sub>):</b>
20-10	<b>Surface Quality:</b>
M10	<b>Transmitted Wavefront, P-V:</b>
67.8	<b>Abbe Number (v<sub>d</sub>):</b>
R <sub>avg</sub> <1.5% @ 400 - 1100nm R <sub>abs</sub> <2.0% @ 400 - 1100nm	<b>Coating Specification:</b>
400 - 1100	<b>Wavelength Range (nm):</b>
-80 to +160 per ML-M-13508C Paragraph 4.4.4	<b>Coating Temperature (°F):</b>

## Material Properties

2.20	<b>Density (g/cm<sup>3</sup>):</b>
0.52 (+5 to +35°C) 0.57 (0 to +200°C) 0.48 (-100 to +200°C)	<b>Coefficient of Thermal Expansion CTE (10<sup>-6</sup>/°C):</b>
7980 0G	<b>Fused Silica Grade:</b>

## Environmental & Durability Factors

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

## Regulatory Compliance

<a href="#">View</a>	<b>Certificate of Conformance:</b>
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## Product Details

- HDAR Coating Achieves Severe Abrasion Requirements of ML-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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