

25.4mm Dia., 1mm Thick, Uncoated, ISP Optics Sapphire Window | AL-W-25-1

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Stock **#24-541** CLEARANCE **1 In Stock**

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1

+

S\$233⁰⁰

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General

AL-W-25-1

Model Number:

Protective Window

Type:

Physical & Mechanical Properties

21.59

Clear Aperture CA (mm):

25.40 +0.00/-0.13

Diameter (mm):

1.00 ±0.13	Thickness (mm):
<3	Parallelism (arcmin):
Protective as needed	Bevel:
85	Clear Aperture (%):
Fine Ground	Edges:
0.27	Poisson's Ratio:
435	Young's Modulus (GPa):
1,900.00	Knoop Hardness (kg/mm²):

Optical Properties

Uncoated	Coating:
Sapphire (Al ₂ O ₃)	Substrate: ☐
1.77	Index of Refraction (n _d):
60-40	Surface Quality:
72.24	Abbe Number (v _d):
0.008 for Visible Light Orthogonal to Optical Axis	Birefringence (n _o -n _e):
Random	Axis Orientation:
330 - 5500	Wavelength Range (nm):
2λ per 25.4mm	Surface Flatness (P-V):

Material Properties

3.97	Density (g/cm³):
8.8	Coefficient of Thermal Expansion CTE (10 ⁻⁶ /°C):

Regulatory Compliance

View	Certificate of Conformance:
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Product Details

- High Corrosion Resistance and Thermal Stability
- Higher Durability than Glass Windows
- Transmission from 0.33 – 5.5µm

ISP Optics Sapphire Windows are highly durable and transmissive protective windows that are ideal for harsh environments. Sapphire is chemically inert, insoluble in water, and resistant to common acids and alkalis. Chemically, sapphire is single crystal aluminum oxide (Al₂O₃) and is useful in a transmission range from 0.33 – 5.5µm when uncoated. ISP Optics Sapphire Windows feature a Knoop Hardness of 1900 and are are resistant to scratches, digs, and fractures that might otherwise weaken fused silica substrates. These windows are often used in applications with high temperatures and pressure such as viewports for vacuum or plasma chambers.