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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**

- 1 + **£133.60**

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Qty 1+	**£133.60** each
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General

Model Number:
AL-W-25-1

Type:
Protective Window

Physical & Mechanical Properties

Clear Aperture CA (mm):
21.59

Diameter (mm):

25.40 +0.00/-0.13

Thickness (mm):
1.00 ±0.13

Parallelism (arcmin):
<3

Bevel:
Protective as needed

Clear Aperture (%):
85

Edges:
Fine Ground

Poisson's Ratio:
0.27

Young's Modulus (GPa):
435

Knoop Hardness (kg/mm^2):
1,900.00

Optical Properties

Coating:
Uncoated

Substrate:
Sapphire (Al_2O_3)

Index of Refraction (n_d):
1.77

Surface Quality:
60-40

Abbe Number (v_d):
72.24

Birefringence (n_o-n_e):
0.008 for Visible Light Orthogonal to Optical Axis

Axis Orientation:
Random

Wavelength Range (nm):
330 - 5500

Surface Flatness (P-V):
2λ per 25.4mm

Material Properties

Density (g/cm^3):
3.97

Coefficient of Thermal Expansion CTE (10^{-6}/°C):
8.8

Regulatory Compliance

Certificate of Conformance:
View

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 (Al_2O_3) 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.

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