

38.1mm Dia., 2mm Thick, Uncoated, ISP Optics Sapphire Window | AL-W-38-2

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1

+

S\$305⁸⁸

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SPECIFICATIONS

General

Protective Window	Type:
AL-W-38-2	Model Number:

Physical & Mechanical Properties

Protective as needed	Bevel:
85	Clear Aperture (%):
32.38	Clear Aperture CA (mm):
38.10 +0.00/-0.13	Diameter (mm):
2.00 ±0.13	Thickness (mm):
Fine Ground	Edges:
1,900.00	Knoop Hardness (kg/mm²):
<3	Parallelism (arcmin):
0.27	Poisson's Ratio:
435	Young's Modulus (GPa):

Optical Properties

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

Material Properties

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

Regulatory Compliance

Compliant	RoHS 2015:
View	Certificate of Conformance:
Compliant	Reach 240:

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 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.