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TECHSPEC® 5mm Diameter x 1.75mm Thickness, MgF₂ Coated, BOROFLOAT® Window

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TECHSPEC BOROFLOAT Borosilicate Windows

Stock **#83-369** **9 In Stock**

- 1 + C\$44.¹⁰

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Volume Pricing	
Qty 1-5	C\$44.10 each
Qty 6-25	C\$35.00 each
Qty 26-99	C\$32.20 each
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General

Protective Window **Type:**

Glass **Type of Window:**

Physical & Mechanical Properties

Clear Aperture CA (mm):

4.50	
5.00 ±0.5	Diameter (mm):
1.75 ±0.2	Thickness (mm):
Protective as needed	Bevel:
≥90	Clear Aperture (%):
Ground	Edges:
0.20	Poisson's Ratio:
64	Young's Modulus (GPa):
480.00	Knoop Hardness (kg/mm²):

Optical Properties

MgF ₂ (400-700nm)	Coating:
BOROFLOAT®	Substrate: <input type="checkbox"/>
1.472	Index of Refraction (n_d):
80-50	Surface Quality:
≥95	Transmission (%):
65.41	Abbe Number (v_d):
R _{abs} ≤2.5% @ 550nm	Coating Specification:
400 - 700	Wavelength Range (nm):
4 - 6λ	Surface Flatness (P-V):

Material Properties

2.23	Density (g/cm³):
525	Transformation Temperature (°C):
3.25 (+20 to +300°C)	Coefficient of Thermal Expansion CTE (10⁻⁶/°C):

Environmental & Durability Factors

1 hour @ 500; >100 hours @ 450	Operating Temperature (°C):
Short Term, 1 hr: 110K 1 - 100 hrs: 90K Long Term, >100 hrs: 80K	Resistance to Temperature Difference (K):
Up to 4mm Thick: 175K 4 - 6mm Thick: 160K 6 - 15mm Thick: 150K	Thermal Shock (K):

Regulatory Compliance

Compliant	RoHS 2015:
View	Certificate of Conformance:
Compliant	Reach 247:

Product Details

- Low Coefficient of Thermal Expansion
- Visible to Near Infrared Transmission
- High Resistance to Thermal Shock

TECHSPEC® BOROFLOAT® Borosilicate Windows are ideal for high temperature and harsh environment applications. The windows have a low coefficient of thermal expansion of 3.25 (+20 to +300°C). TECHSPEC® BOROFLOAT® Borosilicate Windows feature visible to near infrared transmission. Unlike common borosilicate that is drawn flat, BOROFLOAT® is produced by a float technique that yields superior surface flatness — typically 4 - 6λ per inch. BOROFLOAT® is about three times more resistant to thermal shock than standard soda lime glass.

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Technical Information



Coating Curves

Quote Your Size

Compatible Mounts