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TECHSPEC® 10mm Diameter x 1.75mm Thickness, MgF₂ Coated, BOROFLOAT® Window

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TECHSPEC BOROFLOAT Borosilicate Windows

Stock **#83-370** **20+ In Stock**

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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Product Downloads

General

Protective Window **Type:**

Glass **Type of Window:**

Physical & Mechanical Properties

Clear Aperture CA (mm):

9.00	Diameter (mm):
10.00 ±0.5	
	Thickness (mm):
1.75 ±0.2	
	Bevel:
Protective as needed	
	Clear Aperture (%):
≥90	
	Edges:
Ground	
	Poisson's Ratio:
0.20	
	Young's Modulus (GPa):
64	
	Knoop Hardness (kg/mm²):
480.00	

Optical Properties

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

Material Properties

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

Environmental & Durability Factors

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

Regulatory Compliance

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

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