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

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TECHSPEC BOROFLOAT Borosilicate Windows

Stock #12-185 **20+ In Stock**

- 1 + C\$54<sup>.25</sup>

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| Volume Pricing |                               |
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| Qty 1-5        | C\$54.25 each                 |
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### Product Downloads

### General

Protective Window **Type:**

Glass **Type of Window:**

### Physical & Mechanical Properties

**Clear Aperture CA (mm):**

|                      |  |
|----------------------|--|
| 9.00                 |  |
| 10.00 ±0.5           | <b>Diameter (mm):</b>                      |
| 1.75 ±0.2            | <b>Thickness (mm):</b>                     |
| Protective as needed | <b>Bevel:</b>                              |
| ≥90                  | <b>Clear Aperture (%):</b>                 |
| Ground               | <b>Edges:</b>                              |
| 0.20                 | <b>Poisson's Ratio:</b>                    |
| 64                   | <b>Young's Modulus (GPa):</b>              |
| 480.00               | <b>Knoop Hardness (kg/mm<sup>2</sup>):</b> |

## Optical Properties

|                                       |   |
|---------------------------------------|---|
| NIR (700-1150nm)                      | <b>Coating:</b>                             |
| <a href="#">BOROFLOAT®</a>            | <b>Substrate:</b> <input type="checkbox"/>  |
| 1.472                                 | <b>Index of Refraction (n<sub>d</sub>):</b> |
| 80-50                                 | <b>Surface Quality:</b>                     |
| ≥97                                   | <b>Transmission (%):</b>                    |
| 65.41                                 | <b>Abbe Number (v<sub>d</sub>):</b>         |
| R <sub>avg</sub> <1.0% @ 700 - 1150nm | <b>Coating Specification:</b>               |
| 700 - 1150                            | <b>Wavelength Range (nm):</b>               |
| 4 - 6λ                                | <b>Surface Flatness (P-V):</b>              |

## Material Properties

|                      |   |
|----------------------|---|
| 2.23                 | <b>Density (g/cm<sup>3</sup>):</b>                                |
| 525                  | <b>Transformation Temperature (°C):</b>                           |
| 3.25 (+20 to +300°C) | <b>Coefficient of Thermal Expansion CTE (10<sup>-6</sup>/°C):</b> |

## Environmental & Durability Factors

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

## Regulatory Compliance

|                           |                                    |
|---------------------------|------------------------------------|
| <a href="#">Compliant</a> | <b>RoHS 2015:</b>                  |
| <a href="#">View</a>      | <b>Certificate of Conformance:</b> |
| <a href="#">Compliant</a> | <b>Reach 247:</b>                  |

## 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



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