

TECHSPEC®

50mm Diameter x 3.3mm Thickness, Uncoated, BOROFLOAT® Window

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TECHSPEC BOROFLOAT Borosilicate Windows

Stock **#43-893** 20+ In Stock

-

1

+

S\$47<sup>.95</sup>

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| Volume Pricing |                               |
|----------------|-------------------------------|
| Qty 1-5        | S\$47.95 each                 |
| Qty 6-25       | S\$37.80 each                 |
| Qty 26-99      | S\$35.00 each                 |
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Product Downloads

General

Type:

Protective Window

Type of Window:

Glass

Physical & Mechanical Properties

Clear Aperture CA (mm):

|                      |                          |
|----------------------|--------------------------|
| 45.00                |                          |
|                      | Diameter (mm):           |
| 50.00 ±0.5           |                          |
|                      | Thickness (mm):          |
| 3.30 ±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:                               |
| Uncoated   |                                        |
|            | Substrate: <input type="checkbox"/>    |
| BOROFLOAT® |                                        |
|            | Index of Refraction (n <sub>d</sub> ): |
| 1.472      |                                        |
|            | Surface Quality:                       |
| 80-50      |                                        |
|            | Transmission (%):                      |
| 90         |                                        |
|            | Abbe Number (v <sub>d</sub> ):         |
| 65.41      |                                        |
|            | Wavelength Range (nm):                 |
| 350 - 2000 |                                        |
|            | Surface Flatness (P-V):                |
| 4 - 6λ     |                                        |

Material Properties

|                      |                                                              |
|----------------------|--------------------------------------------------------------|
|                      | Density (g/cm³):                                             |
| 2.23                 |                                                              |
|                      | Transformation Temperature (°C):                             |
| 525                  |                                                              |
|                      | Coefficient of Thermal Expansion CTE (10 <sup>-6</sup> /°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<br>1 - 100 hrs: 90K<br>Long Term, >100 hrs: 80K |                                           |
|                                                                        | Thermal Shock (K):                        |
| Up to 4mm Thick: 175K<br>4 - 6mm Thick: 160K<br>6 - 15mm Thick: 150K   |                                           |

Regulatory Compliance

|           |                             |
|-----------|-----------------------------|
|           | RoHS 2015:                  |
| Compliant |                             |
|           | Certificate of Conformance: |
| View      |                             |
|           | REACH 241:                  |
| Compliant |                             |

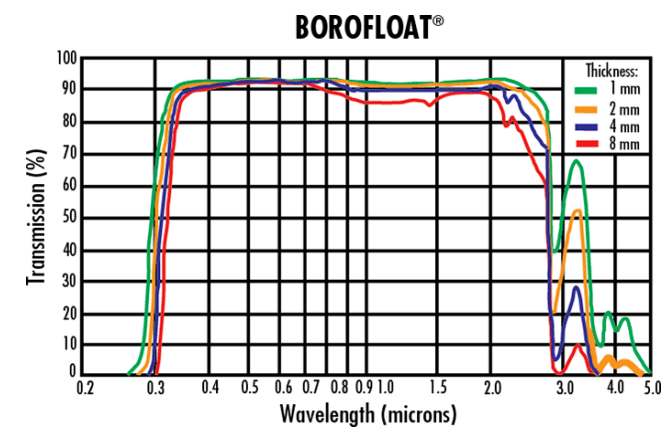
Product Details

- 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



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