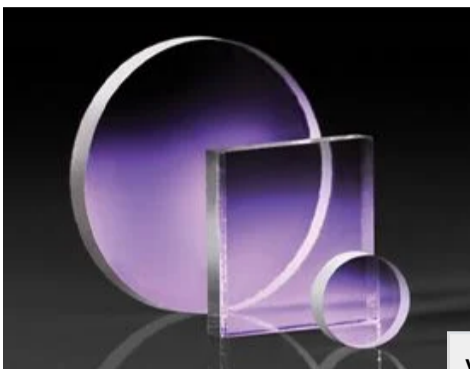


TECHSPEC®

20mm Diameter x 3.3mm Thickness, NIR Coated, BOROFLOAT® Window

See More by [SCHOTT Optical Components](#)



TECHSPEC BOROFLOAT Borosilicate Windows

Stock #12-189 **8 In Stock**

1 **£38^{.20}**

ADD TO CART



Volume Pricing	
Qty 1-5	£38.20 each
Qty 6-25	£30.40 each
Qty 26-99	£28.00 each
Need More?	Request Quote

Prices shown are exclusive of VAT/local taxes

Product Downloads	
STEP:step	Curve:pdf
PDF Drawing:pdf	IGES:igs
eDrawing:eprt	
EO Spec Sheet	Download All

General

Type: Protective Window	Type of Window: Glass
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Physical & Mechanical Properties

Clear Aperture CA (mm): 18.00	Diameter (mm): 20.00 ±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: NIR (700-1150nm)	Substrate: BOROFLOAT®
Index of Refraction (n_d): 1.472	Surface Quality: 80-50
Transmission (%): ≥97	Abbe Number (v_d): 65.41
Coating Specification: R _{avg} <1.0% @ 700 - 1150nm	Wavelength Range (nm): 700 - 1150

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.

Can't find what you need? Get a quick [custom quote](#).

Technical Information

Quote Your Size

PLEASE ENTER YOUR
REQUIRED SPECIFICATIONS
HERE:

Type

Window/Diffuser

Substrate

Thickness (mm)

Shape ⓘ

Diameter (mm) ⓘ

0

Length (mm) ⓘ

0

Width (mm) ⓘ

0

Quantity ⓘ

0

GET PRICING

TYPICAL 4-6 WEEK DELIVERY. DELIVERY DATE TO BE CONFIRMED AT TIME OF ORDER.

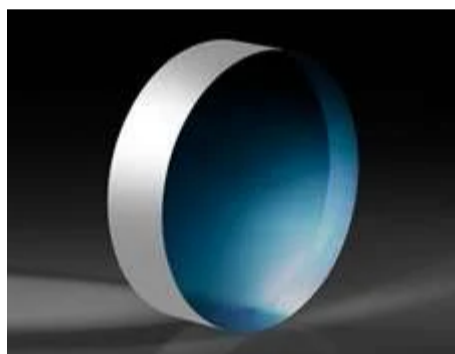
OTHER SUBSTRATES, DIMENSIONS AND THICKNESSES OUTSIDE OF THOSE SHOWN HERE ARE ALSO AVAILABLE. IF YOU ARE INTERESTED IN A PRODUCT OUTSIDE OF THE SPECIFICATIONS SHOWN IN THIS TABLE, PLEASE [CONTACT US](#) TO DISCUSS MANUFACTURING FEASIBILITY.

Frequently Purchased Together



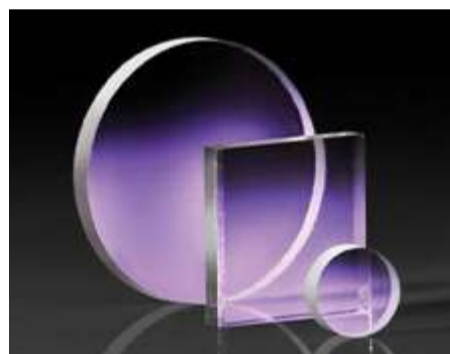
#83-530 - 20mm Diameter, 1550nm V-Coat, $\lambda/4$ N-BK7 Window
£85.60

Qty



#39-298 - 20mm Dia. 2mm Thick NIR II Coated, 1λ Fused Silica Window
£87.20

Qty



#12-190 - 25mm Diameter x 3.3mm Thickness, NIR Coated, BOROFLOAT® Window
£38.20

Qty



















#16-859 - Coherent® LightSmyth™ 800nm, 1398.6 Grooves/mm, 12.7 x 12.7mm Transmission Diffraction Grating
£420.00

Qty



Compatible Mounts

	Title	Type	Compare	Stock Number	Price	Buy
MORE+ 	20.0mm Optic Dia., Optic Mount	Fixed		#64-559	£26.20 Request Quote	14 In Stock <input type="text" value="1"/>
MORE+ 	2.0 - 35.0mm Optic Dia., Three-Screw Adjustable Ring Mount	Fixed		#03-668	£50.40 Request Quote	20+ In Stock <input type="text" value="1"/>
MORE+ 	9.5 - 73.0mm Optic Dia., Three-Screw Adjustable Ring Mount	Fixed		#36-605	£66.40 Request Quote	20+ In Stock <input type="text" value="1"/>
MORE+ 	5.0 - 25.0mm Optic Height, Metric Bar-Type Optic Holder	Fixed		#55-529	£81.60 Request Quote	20+ In Stock <input type="text" value="1"/>
MORE+ 	7.0 - 40.0 Optic Height, English Bar-Type Optic Holder	Fixed		#03-676	£84.80 Request Quote	20+ In Stock <input type="text" value="1"/>
	10.0 - 60.0mm Optic Height,	Fixed		#55-530	£86.40 Request	CONTACT US <input type="text" value="1"/>

	Title	Type	Compare	Stock Number	Price	Buy
MORE+ 	Metric Bar-Type Optic Holder				Quote	
MORE+ 	19.5 - 108.0mm Optic Dia., Three-Screw Adjustable Ring Mount	Fixed		#03-670	£91.20 Request Quote	20+ In Stock <input type="text" value="1"/> 
MORE+ 	7.0 - 67.0 Optic Height, English Bar-Type Optic Holder	Fixed		#03-669	£92.80 Request Quote	20+ In Stock <input type="text" value="1"/> 
MORE+ 	8.0 - 118.0 Optic Height, English Bar-Type Optic Holder	Fixed		#03-666	£96.00 Request Quote	20+ In Stock <input type="text" value="1"/> 
MORE+ 	4.0 - 36.0mm Optic Dia., Self-Centering Jaw Clamp	Fixed		#16-077	£125.60 Request Quote	5 In Stock <input type="text" value="1"/> 
MORE+ 	5.0 - 100.0mm Optic Dia., Self-Centering Jaw Clamp	Fixed		#16-078	£328.00 Request Quote	CONTACT US <input type="text" value="1"/> 

Check out our full selection of mounts [here](#).

Resources

Media Type

- Application Note
- Technical Tool
- Video
- Glossary
- FAQ

APPLICATION NOTE

Anti-Reflection (AR) Coatings

APPLICATION NOTE

An Introduction to Optical Coatings

TECHNICAL TOOL

Beam Displacement Calculator

APPLICATION NOTE

Understanding Optical Windows

VIDEO

Optical Windows Review

APPLICATION NOTE

Optical Glass

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