

TECHSPEC[®] 50.8mm Dia. x 3mm Thick, BBAR (2000-5000nm) Coated Barium Fluoride Window



Stock #23-532 3 In Stock

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1

+

£612^{.00}

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Volume Pricing	
Qty 1-10	£612.00 each
Qty 11-25	£552.00 each
Qty 26-49	£520.00 each
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ⓘ Prices shown are exclusive of VAT/local taxes

Product Downloads

General

Protective Window

Type:

Physical & Mechanical Properties

Protective as needed

Bevel:

90.00

Clear Aperture (%):

45.72	Clear Aperture CA (mm):
50.80 +0.0/-0.1	Diameter (mm):
3.00 ±0.1	Thickness (mm):
Fine Ground	Edges:
82.00	Knoop Hardness (kg/mm²):
<3	Parallelism (arcmin):
0.34	Poisson's Ratio:
53	Young's Modulus (GPa):

Optical Properties	
81.78	Abbe Number (v _d):
Random	Axis Orientation:
BBAR (2000-5000nm)	Coating:
R _{avg} <1.5% @ 2000-5000nm R _{abs} <3.0% @ 2000-5000nm R _{avg} <1.75% @ 2000-4000nm	Coating Specification:
1.48	Index of Refraction (n _d):
Barium Fluoride (BaF ₂)	Substrate:
λ/2	Surface Flatness (P-V):
60-40	Surface Quality:
2000 - 5000	Wavelength Range (nm):

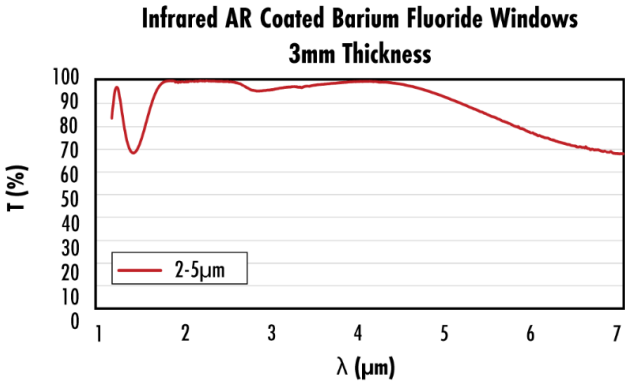
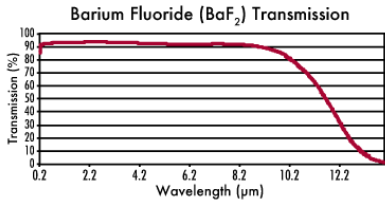
Material Properties	
18.1	Coefficient of Thermal Expansion CTE (10 ⁻⁶ /°C):
4.89	Density (g/cm³):

Regulatory Compliance	
Compliant	RoHS 2015:
View	Certificate of Conformance:
Compliant	Reach 235:

Product Details

- Excellent Transmission from 200nm - 12μm
 - Resistant to High-Energy Radiation
 - Provide High Transmission without AR Coatings
- TECHSPEC® Barium Fluoride (BaF₂) Windows can be used in a variety of applications, such as infrared spectroscopy, due to their wide broadband transmission that extends from the deep ultraviolet to the long-wave infrared. Barium fluoride's low index of refraction of 1.48 provides high transmission without the need for anti-reflection coatings. Barium fluoride windows can be used up to 800°C in a dry environment, but prolonged exposure to moisture can degrade transmission in the ultraviolet range. While barium fluoride windows are less resistant to water than calcium fluoride, BaF₂ windows are the most resistant optical fluoride to high-energy radiation, but feature lower UV transmittance. BaF₂ has a Knoop hardness of 82.
- Note:** These optical windows are very sensitive to thermal shock.
- Barium fluoride is a fast scintillator and can be used to detect X-rays, gamma rays, or other high energy particles such as 511 keV gamma photons in Positron Emission Tomography (PET). BaF₂ can also be used to detect high-energy neutrons and separate them from simultaneously occurring gamma photons using pulse shape discrimination techniques.

Technical Information



Special Handling

These optics require special handling to avoid damage and ensure long-term performance. Proper handling, cleaning, and storage are essential to maintain optical quality. Explore our [Optics Cleaning Resources](#) for step-by-step guides and best practices. For personalized assistance, [Email us](#) or [Chat](#) with our technical support team.



Component Handling Tools

Compatible Mounts