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TECHSPEC® 25.4mm Dia. x 3mm Thick, Barium Fluoride Window

Stock **#18-362** **8 In Stock**

- 1 +

A$468.80

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Volume Pricing	
Qty 1-10	**A$468.80** each
Qty 11-25	**A$420.80** each
Qty 26-49	**A$398.40** each
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Product Downloads

General

Type:
Protective Window

Type of Window:
Crystal

Physical & Mechanical Properties

Clear Aperture CA (mm):
22.86

Diameter (mm):
25.40 +0.0/-0.1

Thickness (mm):
3.00 ±0.1

Parallelism (arcmin):
<3

Dimensional Tolerance (mm):
+0.0/-0.1

Bevel:
Protective as needed

Clear Aperture (%):
90.00

Edges:
Fine Ground

Poisson's Ratio:
0.34

Young's Modulus (GPa):
53

Knoop Hardness (kg/mm^2):
82.00

Optical Properties

Coating:
Uncoated

Substrate:
Barium Fluoride (BaF_2)

Index of Refraction (n_d):
1.48

Surface Quality:
60-40

Abbe Number (v_d):
81.78

Wavelength Range (nm):
200 - 12000

Surface Flatness (P-V):
λ/2

Material Properties

Density (g/cm^3):
4.89

Coefficient of Thermal Expansion CTE (10^{-6}/°C):
18.1

Environmental & Durability Factors

Operating Temperature (°C):
Maximum: 800

Regulatory Compliance

Certificate of Conformance:
View

Product Details

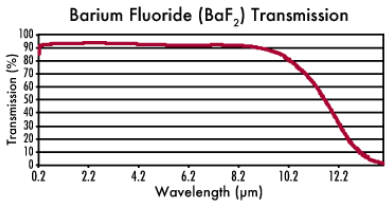
- Excellent Transmission from 200nm - 12µm
- Resistant to High-Energy Radiation
- Provide High Transmission without AR Coatings

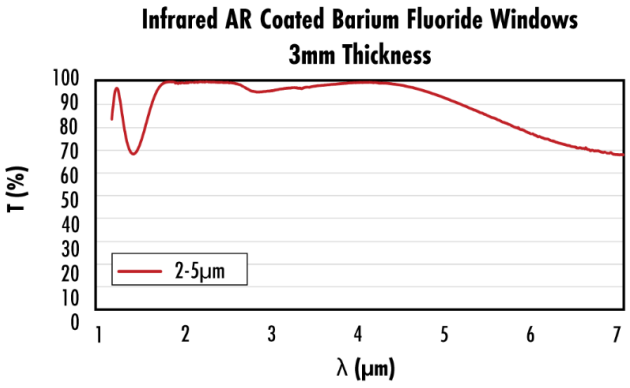
TECHSPEC® Barium Fluoride (BaF_2) Windows can be used in a variety of applications, such as infrared spectroscopy, due to their wide broadband transmission that extends from the deep ultraviolet to the long-wave infrared. Barium fluoride's low index of refraction of 1.48 provides high transmission without 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, BaF_2 windows are the most resistant optical fluoride to high-energy radiation, but feature lower UV transmittance. BaF_2 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). BaF_2 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

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