See all 13 Products in Family

TECHSPEC® 12.5mm Dia x 2mm Thick, Barium Fluoride Window

Stock **#87-700** **15 In Stock**

- 1 + **€188**.00

ADD TO CART

Volume Pricing	
Qty 1-10	**€188,00** each
Qty 11-25	**€168,00** each
Qty 26-49	**€159,00** each
Need More?	Request Quote

Prices shown are exclusive of VAT/local taxes

Product Downloads

General

Type:
Protective Window

Type of Window:
Crystal

Physical & Mechanical Properties

Clear Aperture CA (mm):
11.25

Diameter (mm):	12.50 +0.0/-0.1
Thickness (mm):	2.00 ±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

RoHS 2015:	Compliant
Reach 219:	Compliant
Certificate of Conformance:	View

Product Details

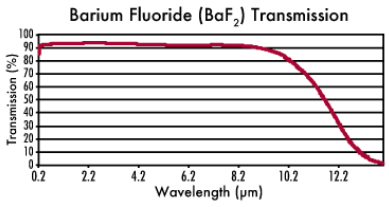
- Excellent Transmission from 200nm - 12µm
- Resistant to High-Energy Radiation
- Provide High Transmission without AR Coatings

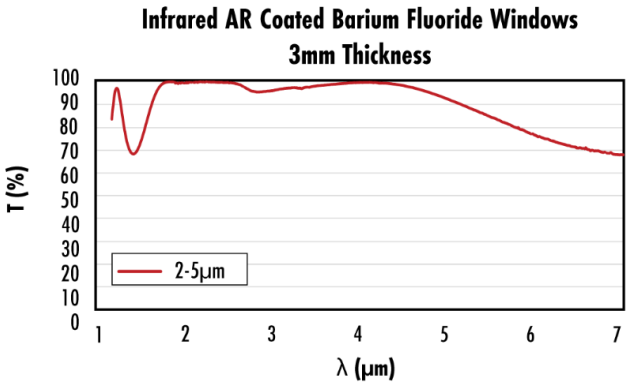
TECHSPEC® Barium Fluoride (BaF_2) Windows can be used in a variety of applications, such as infrared spectroscopy, due to their wide broadband transmission that extends from the deep ultraviolet to the long-wave infrared. Barium fluoride's low index of refraction of 1.48 provides high transmission without 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

;