

# 38.1mm Dia., 2mm Thick, Uncoated, ISP Optics Barium Fluoride (BaF<sub>2</sub>) Window | BF-W-38-2

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Stock #24-498 CLEARANCE 5 In Stock

1

C\$346<sup>.43</sup>

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## General

<b>Model Number:</b> BF-W-38-2	<b>Type:</b> Protective Window
<b>Type of Window:</b> Crystal	

## Physical & Mechanical Properties

<b>Clear Aperture CA (mm):</b> 32.38	<b>Diameter (mm):</b> 38.10 +0.00/-0.13
<b>Thickness (mm):</b> 2.00 ±0.13	<b>Parallelism (arcmin):</b> <3
<b>Bevel:</b> Protective as needed	<b>Clear Aperture (%):</b> 85
<b>Edges:</b> Fine Ground	<b>Poisson's Ratio:</b> 0.34
<b>Young's Modulus (GPa):</b> 53	<b>Knoop Hardness (kg/mm<sup>2</sup>):</b> 82.00

## Optical Properties

<b>Coating:</b> Uncoated	<b>Substrate:</b> <a href="#">Barium Fluoride (BaF<sub>2</sub>)</a>
<b>Index of Refraction (n<sub>d</sub>):</b> 1.48	<b>Surface Quality:</b> 40-20
<b>Abbe Number (v<sub>d</sub>):</b> 81.78	<b>Axis Orientation:</b> Random
<b>Wavelength Range (nm):</b> 200 - 12000	<b>Surface Flatness (P-V):</b> 2λ

## Material Properties

Density (g/cm<sup>3</sup>): 4.89

Coefficient of Thermal Expansion CTE (10<sup>-6</sup>/°C): 18.1

## Environmental & Durability Factors

Operating Temperature (°C): Maximum: 800

## Regulatory Compliance

RoHS 2015: **Compliant**

Certificate of Conformance: **View**

Reach 240: **Compliant**

## Product Details

- Excellent Transmission from 0.2 - 12µm
- Resistant to High-Energy Radiation
- High Transmission without AR Coatings

ISP Optics Barium Fluoride (BaF<sub>2</sub>) Windows provide excellent transmission from 0.2- 12µm without the need for an Anti-Reflection (AR) coating due to its low index of refraction. Barium Fluoride has similar physical properties to Calcium Fluoride, but features higher resistance to high-energy radiation. This makes Barium Fluoride ideal for vacuum UV (VUV) applications such as thermography or laser spectroscopy where high radiation resistance is required. ISP Optics Barium Fluoride (BaF<sub>2</sub>) Windows can be used up to 800°C in a dry environment, but prolonged exposure to moisture can degrade transmission in the ultraviolet range.

**Note:** These optical windows are very sensitive to thermal shock.

## 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

## Related Products



Barium Fluoride (BaF<sub>2</sub>) Windows



ISP Optics Barium Fluoride (BaF<sub>2</sub>) Wedged Windows



Magnesium Fluoride (MgF<sub>2</sub>) Windows

## Resources

Media Type

APPLICATION NOTE

Anti-Reflection (AR) Coatings

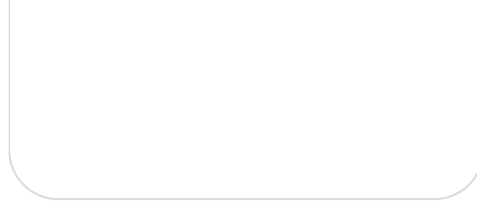
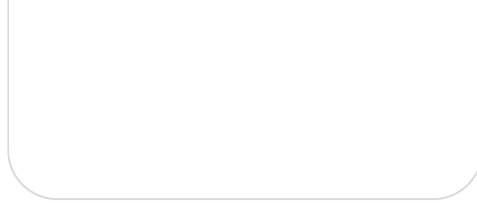
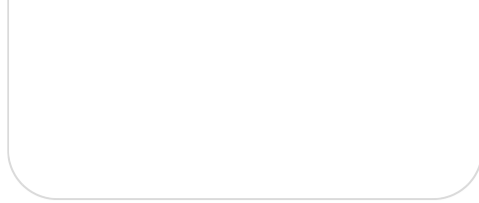
APPLICATION NOTE

An Introduction to Optical Coatings

SCIENTIFIC PAPER

Advantages of using engineered chalcogenide...

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



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**Infrared Light**

**GLOSSARY**  
**Short Wave Infrared (SWIR)**

**TECHNICAL TOOL**  
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