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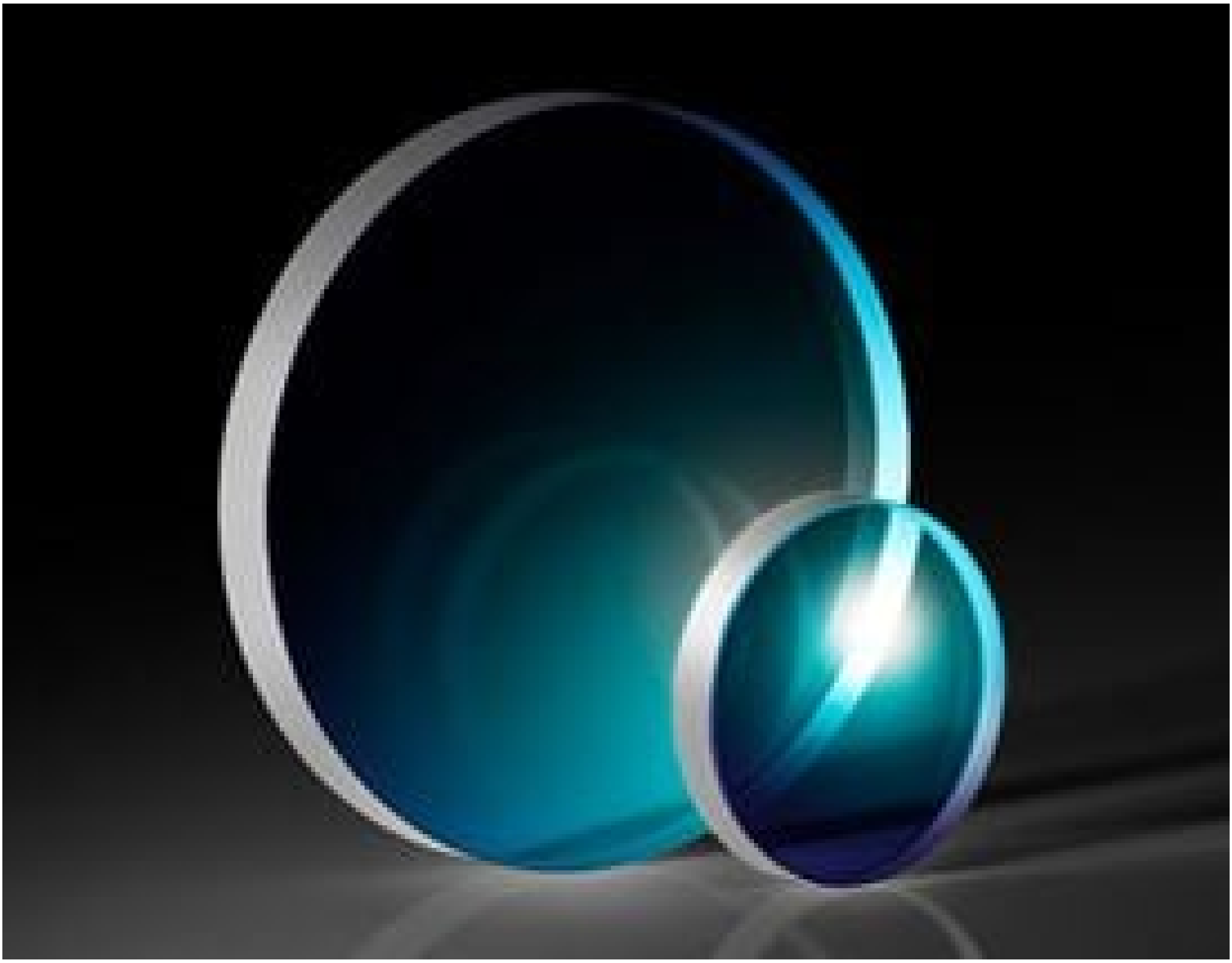
25.4mm Dia., 4mm Thick, 30' Wedge, BBAR (2000-5000nm) Coated, ISP Optics Barium Fluoride (BaF_2) Wedged Window

See More by ISP Optics



Barium Fluoride (BaF_2) Wedged Windows

Stock **#23-719** CLEARANCE **2 In Stock**

- 1 + **A$704**.00

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Volume Pricing	
Qty 1+	**A$704.00** each
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Product Downloads

General

Type:

Protective Window

Physical & Mechanical Properties

Clear Aperture CA (mm):

21.59

Diameter (mm):
25.40 +0.0/-0.13

Thickness (mm):
4.00 ±0.13

Bevel:
Protective as needed

Clear Aperture (%):
85

Edges:
Fine Ground

Poisson's Ratio:
0.34

Young's Modulus (GPa):
53

Knoop Hardness (kg/mm^2):
82.00

Wedge Angle (arcmin):
30±15 arcmin

Optical Properties

Coating:
BBAR (2000-5000nm)

Substrate:
Barium Fluoride (BaF_2)

Index of Refraction (n_d):
1.478 @ 0.5µm
1.451 @ 5µm
1.401 @ 10µm

Surface Quality:
60-40

Abbe Number (v_d):
81.78

Axis Orientation:
Random

Coating Specification:
R_{avg} <1.5% @ 2000-5000nm
R_{abs} <3.0% @ 2000-5000nm
R_{avg} <1.75% @ 2000-4000nm

Wavelength Range (nm):
2000 - 5000

Surface Flatness (P-V):
2λ @ 633nm

Material Properties

Density (g/cm^3):
4.89

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

Regulatory Compliance

RoHS 2015:
Compliant

Certificate of Conformance:
View

Reach 235:
Compliant

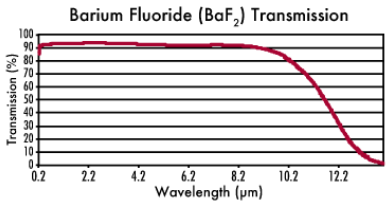
Product Details

- 30 Arcmin Wedge
- Excellent Transmission from 200nm - 12µm
- Resistant to High-Energy Radiation
- **Precision Flat Barium Fluoride (BaF_2) Windows** Also Available

ISP Optics Barium Fluoride (BaF_2) Wedged Windows feature a 30 arcmin wedge to eliminate etalon effects, improving readout in detection and spectroscopy applications. With a low index of refraction of 1.48, these windows provide high transmission from 200nm to 12µm without the need of an anti-reflection (AR) coating. Barium fluoride windows can be used up to 800°C in a dry environment, but prolonged exposure to moisture can degrade transmission in the vacuum ultraviolet range. ISP Optics Barium Fluoride (BaF_2) Wedged Windows are ideal for infrared spectroscopy, thermal imaging, and general UV-IR detection applications. Barium fluoride is also a fast scintillator and can be used for the detection X-rays, gamma rays, or other high energy particles.

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

Technical Information


Barium Fluoride (BaF_2) Transmission
Transmission (%)
100
90
80
70
60
50
40
30
20
10
0
0.2
2.2
4.2
6.2
8.2
10.2
12.2
Wavelength (µm)

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