

Europe, UK, Asia and RoW

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Knight Optical's Stock Barium fluoride windows

Barium Fluoride (BaF₂) is a crystalline compound of barium and fluoride used in optical applications in the NIR, VIS and MWIR spectrums. Barium Fluoride is resistant to high energy radiation, performing well in dry temperatures up to 800°C, but transmission in the Vacuum UV (VUV) degrades over time in a moist atmosphere and the material is susceptible to water corrosion at 500°C.

Barium Fluoride is ideal for use as a VUV window where high radiation resistance is required from, for example, gamma and x-ray. Other applications include **thermography** and **medical thermology equipment**, laser, and astronomy.

Barium Fluoride transmits at over 90% between the 0.2-10µm spectrum beyond which transmission decreases, reaching 0% at about 0.18µm and 14µm. It is a relatively soft material with a hardness of HK82, and can be BBAR coated for use in the 0.8-2.5µm, 3.0-5.0µm and 1.0-5.0µm ranges.

Knight Optical supply a range of quality BaF₂ windows available between 13mm diameter to 38mm diameter direct from stock (or custom if required) . Our stock windows may be resized at short notice to fit customer's individual requirements.

Contact our multilingual technical sales team and discover how Knight Optical's high quality Barium Fluoride windows and service can improve your instrumentation and supply chain experience

Material:	Barium Fluoride
Diameter:	+0, -0.2mm
Thickness:	± 0.2mm
Flatness:	< 2 waves over 90% aperture
Surface quality:	<60-40 scratch/dig
Parallelism:	5 arcmin

Note: Spectroscopic Standard Grade rectangular windows are sometimes cut from the same sized diameter, so may have curved edges as a result. These types also come in drilled (with 30mm spacing)/undrilled versions for use alone or as a pair.

Options available

Mounting into cells.

Edging down to smaller sizes.

Document/Drawing

[Optical material Infrared Barium fluoride](#)

Applications:

[Barium Fluoride \(BaF₂\) IR grid polarizers for molecular lasers](#)

[Barium Fluoride \(BaF₂\) scintillator for detection of high energy particles](#)

[Barium Fluoride \(BaF₂\) IR spectroscopy for fuel oil industry](#)

[Barium Fluoride \(BaF₂\) optics for military systems](#)

Please contact our multilingual technical sales team and discover how Knight Optical's high quality optical components and sub-assemblies with superior service can improve your instrumentation and supply chain experience.

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- View our [QA and metrology information](#)

- Watch our [Corporate Video](#)

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Keywords

Barium Fluoride BaF₂, crystalline compound barium, fluoride, Vacuum UV, VUV, BaF₂ windows, BaF₂ lenses, BaF₂ prisms, BaF₂, optical blanks , BBAR coated

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