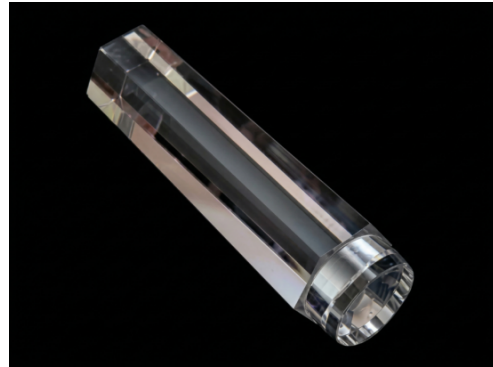


SCINTILLATION CRYSTALS

BaF2 Crystal

Product Brochure & Technical Reference

BaF2 components for scintillation, fast-timing and optical projects. The fast and slow emission components require separate consideration when selecting UV optics and detector readout.



Reference product image. Shown geometry is illustrative.

Material reference properties / options

Parameter	Typical Value
Material	Barium fluoride, BaF2
Crystal structure	Cubic
Density	4.89 g/cm ³
Decay constant	Approx. 620 ns slow component; about 0.6 ns fast component
Emission wavelength	Approx. 310 nm slow component; about 220 nm fast component
Hygroscopicity	Slightly hygroscopic
Light output relative to NaI(Tl)	Approx. 20% slow component; about 4% fast component
Transmission range	Approx. 0.15-14 um

Reference values and options for selection. Confirm the material grade, geometry, test conditions and acceptance criteria for the quoted configuration.

SCINTILLATION CRYSTALS

Configuration & quotation

Define the component around your application

Application examples: Fast timing scintillation detectors; High-energy physics and nuclear physics experiments; Nuclear medicine and time-of-flight detector research

BaF2 Crystal Specifications

Parameter	Typical Value
Melting point	Approx. 1280 C
Cleavage plane	(111)
Hardness	Approx. 3 Mohs
Radiation length	Approx. 20.6 mm
Transmittance	Greater than 94% at 0.35-10.8 um, depending on thickness and surface quality

BaF2 Crystal Specifications

Item	Details
Maximum size	Up to about 120 mm diameter x 200 mm, depending on specification
Available form	Monolithic crystal components and custom machined parts
Optical components	Windows, plates, discs, and drawing-defined optical parts
Scintillator components	Detector crystals for fast timing and nuclear physics applications
Surface finish	Polished, lapped, or custom surface finish according to application
Packaging	Dry handling and protective packaging recommended because BaF2 is slightly hygroscopic

Prepare your quotation

RFQ input	Information to provide
Material / format	State the material or grade, crystal, screen, panel or bar format and intended application.
Geometry / finish	Provide a drawing, dimensions, tolerances, surface treatment and wrapping or support requirements.
Readout / acceptance	Give the optical readout arrangement and define the test conditions and acceptance criteria.
Order details	Provide quantity, destination and the required delivery schedule.

Reference values and options for selection. Confirm the material grade, geometry, test conditions and acceptance criteria for the quoted configuration.

Send drawings for engineering review

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Open product and inquiry page | Hangzhou, Zhejiang, China