

## MarkeTech Calcium Fluoride:Europium (CaF<sub>2</sub>:Eu) Scintillator Crystal

Category : Ceramic , Halide

### Material Notes:

Calcium fluoride activated by Europium is light scintillators are used for detection of charged particles and soft gamma ray up to several hundreds keV. CaF<sub>2</sub>:Eu is typically used for detection of beta rays due to its relatively small back scattering. It is not suitable for detection of high-energy gamma ray because has a small photo fraction. It is non hygroscopic and is relatively chemically inert. Data provided by the supplier, MarkeTech International.

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_MarkeTech-Calcium-FluorideEuropium-CaF2Eu-Scintillator-Crystal.php](http://www.lookpolymers.com/polymer_MarkeTech-Calcium-FluorideEuropium-CaF2Eu-Scintillator-Crystal.php)

Physical Properties	Metric	English	Comments
Density	3.18 g/cc	0.115 lb/in <sup>3</sup>	

Mechanical Properties	Metric	English	Comments
Hardness, Mohs	4.0	4.0	

Thermal Properties	Metric	English	Comments
CTE, linear	19.5 $\mu\text{m}/\text{m}\cdot\text{Å}^\circ\text{C}$	10.8 $\mu\text{in}/\text{in}\cdot\text{Å}^\circ\text{F}$	
Melting Point	1360 $\text{Å}^\circ\text{C}$	2480 $\text{Å}^\circ\text{F}$	

Descriptive Properties	Value	Comments
Crystal Structure	Cubic	
Hydroscopic?	No	
Luminescence: Afterglow	<0.3%	at 6 ms
Luminescence: Decay Constant	940 n/s	
Luminescence: Integrated Light Output	50	NaI:Tl = 100
Luminescence: Photon Yield	23	300K; 10 <sup>3</sup> pH/MeV
Luminescence: Radiation Length	3.05 cm	
Luminescence: Wavelength of max emissions	435 nm	

## Contact Songhan Plastic Technology Co.,Ltd.

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