

BC-436 Deuterated Plastic Scintillator

BC-436 is based on deuterated styrene and has scintillation and physical properties very similar to those of standard premium quality scintillators. It is manufactured on special order and is usually supplied as thin discs ranging in thickness from 0.5mm to 3mm and in diameters up to 125mm. Other shapes also are available, but the material is limited to relatively small sizes.

BC-436's principle use is for (n,d) studies.

Scintillation Properties –

Light Output, %Anthracene	52
Decay Time, ns	~2.2
Wavelength of Maximum Emission, nm	425

Atomic Composition –

No. of C Atoms per cc	4.8×10^{22}
No. of D Atoms per cc	4.6×10^{22}
No. of H Atoms per cc	2.3×10^{21}
Ratio D:H Atoms	20.4
Ratio D:C Atoms	0.96
No. of Electrons per cc	3.4×10^{23}

General Technical Data –

Density	1.13 g/cc
Refractive Index	1.60
Softening Point	100°C

Scintillation Products
Organic Scintillators



USA

Saint-Gobain Crystals
17900 Great Lakes Parkway
Hiram, OH 44234
Tel: (440) 834-5600
Fax: (440) 834-7680

Europe

Saint-Gobain Crystals
104 Route de Larchant
BP 521
77794 Nemours Cedex, France
Tel: 33 (1) 64 45 10 10
Fax: 33 (1) 64 45 10 01

P.O. Box 3093
3760 DB Soest
The Netherlands
Tel: 31 35 60 29 700
Fax: 31 35 60 29 214

Japan

Saint-Gobain KK, Crystals Division
3-7, Kojimachi, Chiyoda-ku,
Tokyo 102-0083 Japan
Tel: 81 (0) 3 3263 0559
Fax: 81 (0) 3 5212 2196

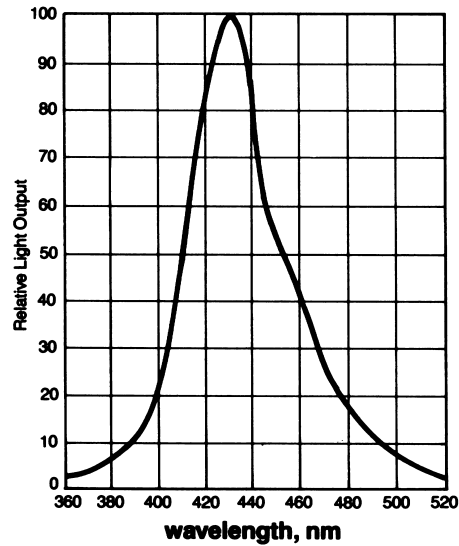
China

Saint-Gobain (China) Investment Co.,
Ltd.
15-01 CITIC Building
19 Jianguomenwai Ave.
Beijing 100004 China
Tel: 86 (0) 10 6513 0311
Fax: 86 (0) 10 6512 9843

www.detectors.saint-gobain.com

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Emission Spectrum –



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