BC-452
Lead-loaded
Plastic Scintillator

BC-452 detects low-energy (<100 keV) at high count rates, which makes it useful in such applications as Mossbauer spectroscopy and X-ray dosimetry. The standard material contains 5% lead by weight. The plastic incorporates the lead by means of organic-metallic chemistry which yields a clear scintillator. You can obtain other lead concentrations up to 10%.

General Technical Data –

Density, g/cc	5% loading 1.08
	2% loading 1.05
	10% loading....1.17
Refractive Index	1.58
Softening Point	60°C

Scintillation Properties –

Light Output, %Anthracene	5% Loading.....32
	2% Loading.....48
	10% Loading...20
Decay Time, ns	2.1
Wavelength of Maximum Emission, nm	424

Linear Attenuation Coefficients (cm^{-1}) for Standard BC-452 (5% lead) and BC-400 (unloaded) Plastic Scintillator

Energy, keV	BC-452	BC-400
20	4.91	0.400
30	1.78	0.250
40	0.919	0.215
50	0.587	0.196
60	0.427	0.186
80	0.272	0.176
100	0.449	0.167
150	0.251	0.151
200	0.188	0.138

SAINT-GOBAIN
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Scintillation Products
Organic Scintillators

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CRYSTALS

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Emission Spectrum –