

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%.

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

General Technical Data –

Density, g/cc	5% loading1.08
	2% loading1.05
	10% loading....1.17
Refractive Index	1.58
Softening Point	60°C

Scintillation Products
Organic Scintillators



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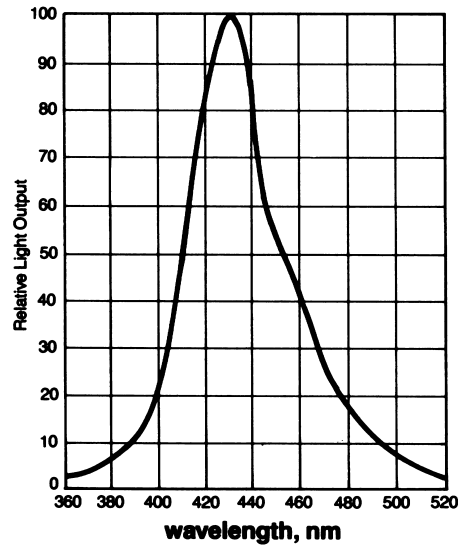
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Emission Spectrum –



Manufacturer reserves the right to alter specifications.

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