

BC-525

Gd Loaded Mineral Oil Based Liquid Scintillator

This scintillator, with its mineral oil component, has higher light transmission and higher flash point than traditional gadolinium loaded liquids. Both of these features recommend it highly for neutron spectrometry and neutrino research. It is also more suitable for use in large tanks containing acrylic plastic components.

BC-525 is available with gadolinium concentrations up to 0.5% by weight. It is the result of a long term development program and possesses the two important properties of high light transmission and long term chemical stability.

Scintillation Properties –

Light Output, % Anthracene	55
Decay Time, short component, ns	3.8
Bulk Light Attenuation, meters	>4.5
Wavelength of Maximum Emission, nm	425

Atomic Composition –

No. of H Atoms per cc	6.00×10^{22}
No. of C Atoms per cc	3.85×10^{22}
Ratio H:C Atoms	1.56
No. of Electrons per cc	29.9×10^{22}

General Technical Data –

Gadolinium Content	0.5%, w/w
Density	0.88 g/cc
Refractive Index	1.49
Flash Point	81°C



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Emission Spectrum –

