BC-517S,BC-517H,BC-517L,BC-517P Mineral Oil Based Liquid Scintillators

Mineral oil based liquid scintillators are used in large tanks where exceptionally long mean free paths are essential and high light output is of secondary importance. These mineral oil scintillators are compatible with acrylic plastics such as Plexiglas® and Perspex®, plus a wide variety of metals and some other plastics and reflective coatings. Glue joints made with solvent action cements should be annealed.

Saint-Gobain Crystals mineral oil scintillators have flash points rendering them relatively safe for use in large containers and large volume detector arrays. They are especially suited where the expense of large area plastic scintillators would be prohibitive.

Special care is taken when manufacturing our mineral oil liquid scintillators. Our people are keenly aware of the particularly high requirements regarding light transmission and product uniformity demanded by the physics community. Therefore, in addition to employing standard, rigorous purification and handling techniques, Saint-Gobain Crystals uses special test facilities for light transmission measurement in order to guarantee customer satisfaction with every shipment of this scintillator.

Scintillation Properties	**BC-517S**	**BC-517H**	**BC-517L**	**BC-517P**
Light Output, %Anthracene				
Saturated with Nitrogen	66	52	39	28
Saturated with Air	51	40	30	21
Mean Free Path for 400-500nm light, meters	>4	>5	>5	>6
Wavelength of max emission, nm	425	425	425	425
Atomic Composition				
No. of H Atoms per cc ($x10^{22}$)	6.50	7.06	7.40	7.50
No. of C Atoms per cc ($x10^{22}$)	3.83	3.73	3.68	3.65
Ratio H:C Atoms	1.70	1.89	2.01	2.05

General Technical Data –

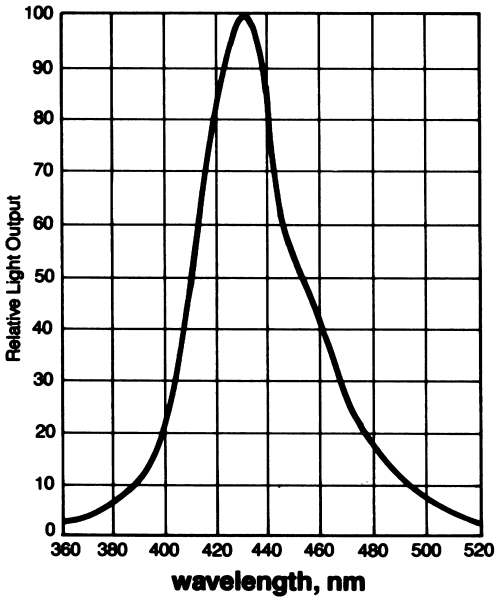
Refractive Index	BC-517S	1.49
	BC-517H	1.476
	BC-517L	1.471
	BC-517P	1.47
Flash Point, T.O.C.	BC-517S	53°C
	BC-517H	81°C
	BC-517L	102°C
	BC-517P	115°C
Specific Gravity	BC-517S	0.87
	BC-517H	0.86
	BC-517L	0.86
	BC-517P	0.85

CRYSTALS

SAINT-GOBAIN

BC-517S,BC-517H,BC-517L,BC-517P
Mineral Oil Based Liquid Scintillators

Emission Spectrum



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Saint-Gobain Crystals

www.crystals.saint-gobain.com