What is Photoluminescent material?

Photoluminescent materials are energised by natural and/or artificial light, activating illumination is stored which is released instantly upon the removal of external illumination source(s). In darkness the activated material emits a high contrast afterglow projecting the all important safety message over a long period of time.

Jalite AAA Photoluminescent Material – Specification

JALITE AAA photoluminescent material is a proprietary PVC multi-layer composite, comprising of three components. A base reflective layer, a morphology controlled and uniform yellow/green photoluminescent crystal layer and an optically clear protection layer.

Developed to meet and exceed the demands of real life safety applications, highly efficient and receptive to modern lighting techniques maximising both initial brightness and longevity. Jalite AAA photoluminescent material incorporates revolutionary 3rd generation phosphorescent pigment technology and is accredited to satisfy the requirements of current safety and design specifications.

The specification of Jalite AAA is summarised in the table below:

Properties	Test methods	Unit	Characteristic value
Colour	-	-	Yellow / Green
Composition material	-	-	PVC
De-lamination strength of all layers	ISO 17398	N / 25mm	Not detectable, material breaks
Gloss	ISO 17398	60%	Low / Intermediate
Photoluminescent	ISO 17398	mcd/m^2	Class C

Excitation: lux level and time	2 minutes		10 minutes		30 minutes		60 minutes		Time to 0.3mcd/m^2 (min)	
1000 lux for 5 minutes (ISO 17398 / DIN 67 510 / PSPA)	1020	690	195	140	54	45	22	20	2100	>1800
21.5 lux for 120 minutes (NYC RS6-1)	-	-	54	30	-	-	10	7	90 min	
									6	5
25 lux for 24 hours (ISO 15370 & IMO RESOLUTION A.752(18))	-	-	60	15	-	-	11	2	-	-
50 lux for 15 minutes (TEL/231)	250	210	65	50	18.5	15	8.5	7	>900	>900

Jalite AAA Material Standard Requirement

Luminance results are measured in mcd/m^2

N.B. All values at all decay times are evaluated from mean readings of standard production data.

Fire test	DIN 53438-3	class	K 1
Resistance to humidity	ISO 17398		no visible change
Water resistance	ISO 17398		no visible change

Full specification of Jalite AAA photoluminescent material is available upon request