

Test Report No. 7191058226-MEC13-LGJ
dated 30 Apr 2013



PSB Singapore

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SUBJECT:

Flammability test on "Greenlam SafeguardPlus Compact Laminate" Compact Laminate Paper Product material submitted by Greenlam Asia Pacific Pte Ltd on 18 Apr 2013.

TESTED FOR:

Greenlam Asia Pacific Pte Ltd
11 Sungei Kadut Crescent
Singapore 728683

DATE OF TEST:

25 Apr 2013

PURPOSE OF TEST:

UL-94 : 1997 - "Test for flammability of plastic materials for parts in devices and appliances". - 20mm Vertical Burning Test.

The test was conducted at TÜV SÜD PSB fire test laboratory located at No. 10 Tuas Avenue 10, Singapore 639134.



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LA-2007-0380-A
LA-2007-0380-A-1
LA-2007-0381-F
LA-2007-0382-B
LA-2007-0383-G
LA-2007-0384-G
LA-2007-0385-E
LA-2007-0386-C

The results reported herein have been performed in accordance with the laboratory's terms of accreditation under the Singapore Accreditation Council - Singapore Laboratory Accreditation Scheme. Tests/Calibrations marked "Not SAC-SINGLAS Accredited" in this Report are not included in the SAC-SINGLAS Accreditation Schedule for our laboratory.



DESCRIPTION OF SPECIMENS:

Twenty pieces of specimen, said to be "Greenlam SafeguardPlus Compact Laminate" (1.4g/cm³) Compact Laminate Paper Product material, each of nominal size of 125mm x 13mm x 13mm (thick) were received. The fire retardant used was said to be Ethanol Amine Group – Phosphoric Acid. The nominal bulk density of the specimen was found to be 1402kg/m³.

RESULTS:

Description	Unit	Result		UL 94 Requirement		
		After conditioning at 23 ± 2°C and 50 ± 5% RH for 48 hrs	After conditioning in an air-circulating oven for 168 hrs at 70 ± 1°C	V-0	V-1	V-2
20mm Vertical Burning Test				V-0	V-1	V-2
1. Number of specimens tested	-	5	5	-		
2. After flame time after first flame application, t ₁ (Individual readings)	sec.	0, 0, 0, 0, 0	0, 0, 0, 0, 0	≤ 10	≤ 30	≤ 30
3. After flame time after second flame application, t ₂ (Individual readings)	sec.	0, 0, 0, 0, 0	0, 0, 0, 0, 0	≤ 10	≤ 30	≤ 30
4. Total after flame time for any condition set (t ₁ + t ₂ for the 5 specimens)	sec.	0	0	≤ 50	≤ 250	≤ 250
5. After glow time after second flame application, t ₃ (Individual readings)	sec.	0, 0, 0, 0, 0	0, 0, 0, 0, 0	-		
6. After flame plus after glow time after the second flame application (t ₂ + t ₃) (Individual readings)	sec.	0, 0, 0, 0, 0	0, 0, 0, 0, 0	≤ 30	≤ 60	≤ 60
7. After flame or after glow of any specimen up to the holding clamp	sec.	No	No	No	No	No
8. Cotton indicator ignited by flaming particles or drops	sec.	No	No	No	No	Yes

CONCLUSION:

In accordance with the criterion stated in the UL 94 :1997 - 20mm Vertical Burning Test, the test results show that the sample tested meet the requirements for UL94 :1997 V-0 classification.


Leong Gene-Jhou
Senior Associate Engineer


Chan Lung Toa
Product Manager
(Fire Property)
Mechanical Centre

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July 2011

