

Test Report No. 7191021541-MEC11-GZJ
dated 10 Dec 2011

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SUBJECT:

Flammability test on "Polymer Grab Bar & Handrail" material submitted by Spazio Concepts Pte Ltd on 25 Nov 2011.

TESTED FOR:

Sapzio Concepts Pte Ltd
540 Sims Avenue
#04-01/02 Sims Avenue Centre
Singapore 387603

Attn: Mr Brandon Heng

DATE OF TEST:

05 Dec 2011

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's fire test laboratory located at No. 10 Tuas Avenue 10, Singapore 639134.



Laboratory:
TÜV SÜD PSB Pte. Ltd.
No.1 Science Park Drive
Singapore 118221

		LA-2007-0380-A LA-2007-0381-F LA-2007-0382-B LA-2007-0383-G LA-2007-0384-G LA-2007-0385-E LA-2007-0386-C LA-2010-0464-D	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.
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DESCRIPTION OF SPECIMENS:

Twenty pieces of specimen, said to be “Polymer Grab Bar & Handrail” material comprising of Acrylonitrile – Butadiene Styrene (ABS), each of nominal test size of 125mm x 13mm were submitted. The overall thickness and bulk density of the specimen were found to be approximately 4.1mm and 1164kg/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						
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, 2, 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, 0, 0, 0	0, 2, 0, 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, 2, 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	No

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.


Ong Kian Huat
Associate Engineer


Chan Lung Toa
Product Manager
(Fire Safety & Security Products)
Mechanical Centre

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July 2011

