Note: This report is issued subject to the Testing and Certification Regulations of the TÜV SÜD Group and the General Terms and Conditions of Business of TÜV SÜD PSB Pte Ltd. In addition, this report is governed by the terms set out within this report.



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SUBJECT:

Large scale surface spread of flame test on "Everest Board" submitted by Everest Industries Ltd on 17 Apr 2013.

TESTED FOR:

Everest Industries Ltd A-32, Genesis Mohan Co-Operative Industrial Estate Mathura Road New Delhi - 110044 India

DATE OF TEST:

24 Apr 2013

PURPOSE OF TEST:

To determine the tendency of the surface of a material or a combination of materials to support the spread of flame across its surface and to classify the surface according to the test given in British Standard 476: Part 7: 1997.

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



This test report supersedes test report dated on 02 May 2013



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



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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.

Regional Head Office: TÜV SÜD Asia Pacific Pte. Ltd. 3 Science Park Drive, #04-01/05 The Franklin, Singapore 118223 TÜV®



DESCRIPTION OF SPECIMENS:

Nine pieces of specimen, said to be "Everest Board" (6mm thick x $1200 \text{kg/m}^3 - 1250 \text{kg/m}^3$) comprising of Fibre Cement, each of nominal test size of 885mm x 270mm were submitted. The bulk density of the sample was found to be approximately 1245kg/m^3 .

TEST PROCEDURE:

Prior to test, the specimens were prepared and conditioned in accordance with paragraphs 5.3 to 5.6 of the standard and secured to a specimen holder as described in paragraph 6.3.

Six specimens, backed with calcium silicate board, were tested with the <u>Front</u> face exposed to the specified thermal radiation from the apparatus described in paragraph 6.1 of the standard. The intensity of the radiated heat incident on the specimen varies with distance from the hotter end, so that when the specified calibration panel is mounted in the place to be occupied by the specimen, the irradiance of the radiometer is as given in Table 1. The test was terminated when the flame front reached the 825mm reference line, or after 10 minutes has elapsed, whichever is the shorter.

Table 1: Irradiance Along Horizontal Reference Line on the Calibration Board

Distance along reference line from inside edge of specimen holder	Irradiance kW/m ²		
mm	specified	min.	max.
75	32.5	32.0	33.0
225	21.0	20.5	21.5
375	14.5	14.0	15.0
525	10.0	9.5	10.5
675	7.0	6.5	7.5
825	5.0	4.5	5.5

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This test report supersedes test report dated on 02 May 2013



RESULTS OF TEST:

Specimen No.	1	2	3	4	5	6
Spread of flame at	0	0	0	0	0	0
first 1½ minutes (mm) Distance (mm)						
Distance (mm)	Time of spread of flame to indicated distance (minutes • seconds)					
Start of flaming	nil	nil	nil	nil	nil	nil
75	-	-	- 1111		- 1111	- "
165	_	_	_	_	_	_
190	_	_	_	_	_	_
215						
240						
265				No.		
290	- 2			- A		
375				100		
455	1/6					
500				- 34	c c	
525		71	7		6	
600				N	100	
675		6		100	9.7	
710	7/			- 7/4		
750				W I		
785			WA V	AL I		
825			- VA A	70		
865						
Time of maximum						
spread of flame	1	-	-	-	-	-
(minutes • seconds)		-				
Distance of maximum	0	0	0	0	0	0
spread of flame (mm)						
Comments	No.		No	ne	1	

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This test report supersedes test report dated on 02 May 2013



Classification of Surface Spread of Flame

Classification	Spread of flame at 1.5 min.		Final spread of flame		
	Limit (mm)	Limit for one specimen in	Limit	Limit for one specimen in	
		sample (mm)	(mm)	sample (mm)	
Class 1	165	165 + 25	165	165 + 25	
Class 2	215	215 + 25	455	455 + 45	
Class 3	265	265 + 25	710	710 + 75	
Class 4	Exceeding the limits for class 3				

CONCLUSION:

In accordance with the class definitions specified in the Standard, the test results show that the sample tested has a <u>Class One</u> Surface Spread of Flame.

REMARKS:

- 1. The test results relate only to the behaviour of the test specimens of the product under the particular conditions of test; they are not intended to be the sole criterion for assessing the potential fire hazard of the product in use.
- 2. To change the name from "Everest" Multipurpose Fibre Cement Board to "Everest Board".

Ong Kian Huat

Higher Associate Engineer

Chan Lung Toa
Product Manager
(Fire Property)
Mechanical Centre

This test report supersedes test report dated on 02 May 2013



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