

Test Report No. 7191032616-MEC12-MHA
dated 22 May 2012

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SUBJECT:

Non-combustibility test on "DURAFLEX" CALCIUM SILICATE BOARD material submitted by VTJ (SINGAPORE) PTE LTD on 25 Apr 2012.

TESTED FOR:

VTJ (SINGAPORE) PTE LTD
No. 4 Chin Bee Road
Singapore 619819

Attn: Mr Kelvin Chow

DATE OF TEST:

16 May 2012 and 17 May 2012

PURPOSE OF TEST:

To determine whether the material is non-combustible when it is exposed to the conditions of the test specified in British Standard 476: Part 4: 1970 "Fire Test on Building Materials and Structures - Non-combustibility Test for Materials".

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.

Phone : +65-6885 1333
Fax : +65-6776 8670
E-mail: testing@tuv-sud-psb.sg
www.tuv-sud-psb.sg
Co. Reg : 199002667R

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

Thirty-six pieces of specimen, said to be "DURAFLEX" CALCIUM SILICATE BOARD material comprising of Cement, sand, pulp, limestone (Ca(OH)₂), each of nominal size of 40mm x 40mm were submitted. The overall thickness and bulk density of the specimen were found to be approximately 9mm and 1398kg/m³ respectively. The Additives used was said to be Retention agent. Six blocks of specimen, each of nominal test size of 40mm x 40mm x 50mm thickness were prepared.

TEST PROCEDURE:

Specimens were exposed to the specified heating conditions (750 ± 10°C) in a furnace conforming to Clause 6 and illustrated in Figure 1, 2 and 3 of the Standard. The furnace was heated and its temperature stabilized at 750 ± 10°C for more than 10 minutes. One specimen was then inserted in the furnace, the whole operation was performed in less than 5 seconds. The temperature of the specimens and the furnace were measured by two separate Chromel/Alumel thermocouples continuously for 20 minutes on the chart of a recorder. The flaming time of the specimen was determined by a stop watch. The procedure was repeated twice for two other specimens, one at each time.


RESULTS:

Description	Specimen 1	Specimen-2	Specimen 3	Requirements
Time of continuous flaming (sec.)	0	0	0	<10
Temperature rise of furnace (°C)	49	42	48	<50
Temperature rise of sample (°C)	0	0	0	<50
Classification	Non-combustible	Non-combustible	Non-combustible	-

CONCLUSION:

A non-combustibility test for materials in accordance with British Standard 476 Part 4 : 1970 has been performed on the material as described in this report and the classification of the sample is non-combustible.


Ong Kian Huat
Higher Associate Engineer


Chan Lung Toa
Product Manager
(Fire Property)
Mechanical Centre



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July 2011

