TEST REPORT

Your Ref : ICE/217/98/DL/LTR

Date : 1998-10-27

Our Ref : G61854/HT
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SUBJECT:

Non-combustibility test on aluminium alloy honeycomb core material of "HIVE-PANEL" submitted by Integral Components Equip'e Pte Ltd on 1998-09-29.

TESTED FOR:

Integral Components Equip'e Pte Ltd
No. 1 Kallang Way 4
Singapore 349061

Attn : Mr David Lim

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DIRECTOR MECHANICAL TEST CENTRE 27/10/98

DATE OF TEST:

1998-10-21 to 1998-10-22

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".

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DESCRIPTION OF SAMPLES:

6 pieces of sample, said to be aluminium alloy honeycomb core material of "HIVE PANEL", each of nominal size of 40mm x 40mm x 50mm (thick) were received. The sample was said to consist of A3003 H18 aluminium alloy foil of approximately 70 μm thickness, bonded together to form a series of expanded honeycomb-like cell of approximately 12.7 mm in size. The bulk density of the sample was found to be 32 kg/m^3.

TEST PROCEDURES:

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.)	3	4	4	≤ 10
Temperature rise of furnace (°C)	7	11	11	≤ 50
Temperature rise of sample (°C)	16	17	8	≤ 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 materials are non-combustible.

Mah Poh Huat
Technical Executive

Chan Lung Toa
Team Leader
(Fire Safety & Security Product)
Mechanical Test Centre

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