

## TEST REPORT

REPORT NO.: 2019FE0168

PAGE : 1 OF 4

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### THIS TEST REPORT IS ISSUED IN SECURED PDF SOFTCOPY

Applicant/ : **ALCOPANEL CO., LTD**  
Manufacturer : 7F, 275, Gangnam-Daero,  
Seocho-Gu,  
06729 Seoul,  
Korea.  
**(Attn: Mr. Kevin Kim / Mr. Jeffrey Kim)**

Product : **FIRE RETARDANT ALUMINIUM COMPOSITE PANEL**

Reference : BS 476 : Part 7: 1997  
Standard/ : Fire Test on Building Materials and Structures  
Method of Test : Part 7: Surface Spread of Flame Test.


Description of Test : 9 pieces of Fire Retardant Aluminium Composite Panel.  
Specimen :  
Size of Specimen : 270mm x 885mm x 4.2mm (measured thickness)  
Brand : ALCOPANEL FR  
Type : ALCOPANEL FR  
Mass Per Unit Area : 7.48 kg/m<sup>2</sup>

Descriptions of sample as claimed by the submitter: Refer to page 4

The specimens were tested with the face side exposed to the specified heating condition of the fire test.

Date Received : 23.02.2019  
Job Number : J20191440130  
Test Result : **Classification of Surface Spread of Flame Test** : **Class 1**  
Issued Date : 29 March 2019

Approved Signatory



(MUHAMMAD SAFUAN MUSA)  
Testing Executive



(ZAINI AHMAD)  
Group Leader  
Fire Protection Section  
Testing Services Department

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**Name of Applicant** : ALCOPANEL CO., LTD  
**Product** : FIRE RETARDANT ALUMINIUM COMPOSITE PANEL  
**Brand** : ALCOPANEL FR  
**Type** : ALCOPANEL FR  
**Measured Thickness** : 4.2 mm  
**Mass Per Unit Area** : 7.48 kg/m<sup>2</sup>  
**Date of Test** : 22.03.2019

### Requirement

The flame spread on any specimen of the sample shall not exceed the limit assigned for the class with the proviso that for one specimen only in the sample the flame spread may exceed this limit by the tolerance shown.

### Classification of Surface Spread of Flame

Classification	Flame Spread at 1½ min		Final Flame Spread	
	Limit (mm)	Tolerance for one specimen in sample (mm)	Limit (mm)	Tolerance for one specimen in sample (mm)
Class 1	165	25	165	25
Class 2	215	25	455	45
Class 3	265	25	710	75
Class 4	Exceeding Class		3 limits	



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### Test Results

**Product** : FIRE RETARDANT  
ALUMINIUM COMPOSITE PANEL

**Brand** : ALCOPANEL FR

**Type** : ALCOPANEL FR

**Measured Thickness** : 4.2 mm

**Mass Per Unit Area** : 7.48 kg/m<sup>2</sup>

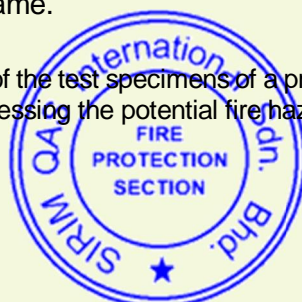
**Date of Test** : 22.03.2019

Specimen No.	1	2	3	4	5	6
Spread of flame at 1½ minutes (mm)	0	0	0	0	0	0
Distance (mm)	Time of spread of flame to indicated distance ( minutes . seconds )					
75	-	-	-	-	-	-
165	-	-	-	-	-	-
190	-	-	-	-	-	-
215	-	-	-	-	-	-
240	-	-	-	-	-	-
265	-	-	-	-	-	-
290	-	-	-	-	-	-
375	-	-	-	-	-	-
455	-	-	-	-	-	-
500	-	-	-	-	-	-
525	-	-	-	-	-	-
600	-	-	-	-	-	-
675	-	-	-	-	-	-
710	-	-	-	-	-	-
750	-	-	-	-	-	-
785	-	-	-	-	-	-
825	-	-	-	-	-	-
865	-	-	-	-	-	-
Time of maximum spread of flame (minutes . seconds)	0	0	0	0	0	0
Distance of maximum spread of flame (mm)	-	-	-	-	-	-

### Conclusion

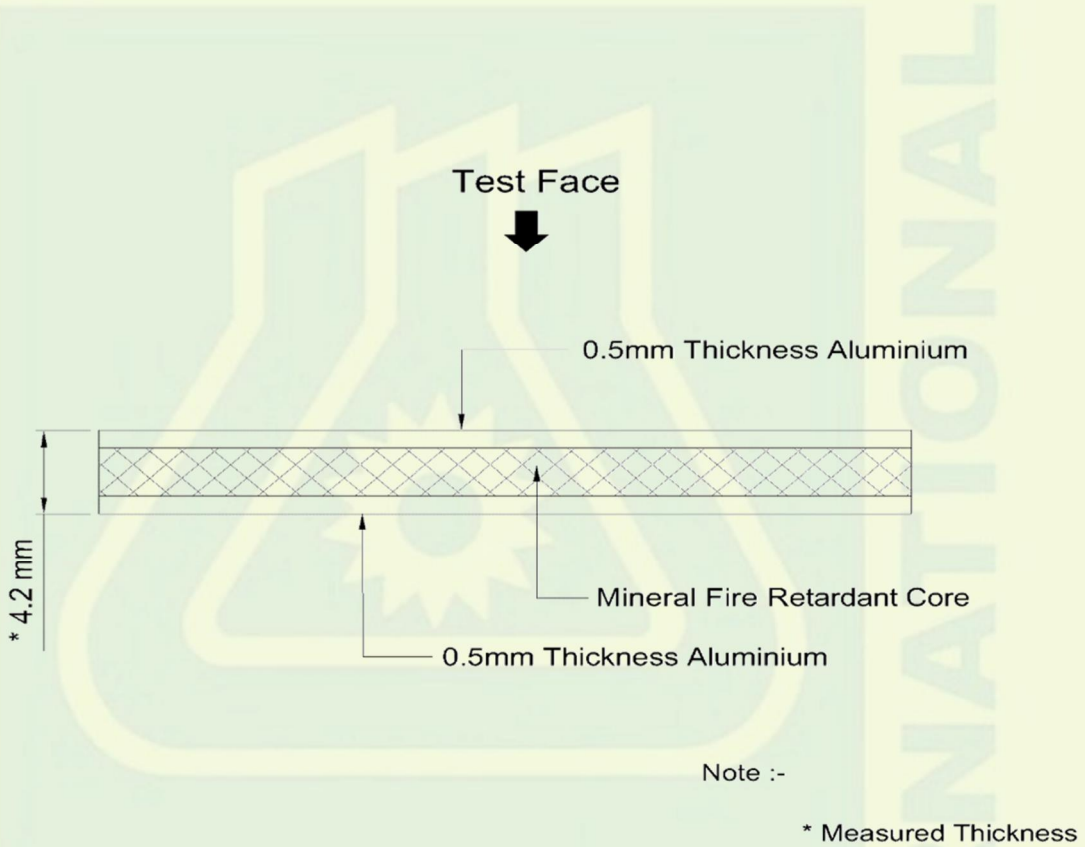
In accordance with the class definition specified in the standard, the test results show that the sample tested has a Class **One** Surface Spread of Flame.

The test results relate only to the behavior of the test specimens of a product under the particular conditions of test; they are not intended to be sole criterion for assessing the potential fire hazard of the product in use.



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**Descriptions of sample as claimed by the submitter**



Fire Retardant Aluminium Composite Panel



## CONDITIONS RELATING TO THE USE OF SIRIM QAS INTERNATIONAL TEST REPORT

1. A Test Report will be issued in respect of Testing Services conducted and shall relate only to the Sample actually tested. SIRIM QAS International makes no warranty whatsoever and the Applicant shall not represent in any manner that any duplication or mass production of the Product is same as the Sample actually tested or that SIRIM QAS International has tested any of the duplicated or mass produced Product.
2. The Test Report shall not be amended, changed, varied or modified in any manner whatsoever by the Applicant or otherwise.
3. If the Test Report is to be furnished to any third party or to the public, each such Test Report shall be furnished in full, legible and in its entirety.
4. The Test Report shall not be reproduced and shall not in any event be used for any advertising purposes or whatsoever without written approval from the Managing Director of SIRIM QAS International of No 1, Persiaran Dato' Menteri, Building 8, Section 2, P.O. Box 7035, 40700 Shah Alam, Selangor Darul Ehsan.
5. Customer (Applicant/Manufacture/Factory, etc.) is not permitted to use any SIRIM QAS International, SIRIM or other SIRIM's subsidiaries logo or words on packaging, sample's manual, technical specification, brochures/flyers or any other means without the prior written approval from the Managing Director of SIRIM QAS International.
6. If such approval is obtained from the Managing Director of SIRIM QAS International, the Applicant may only include the phrase, "A sample of this product has been tested by SIRIM QAS International ... (Test Report No) ... (dated) .... (for what test) ... (to which standard)" or such similar words which stress that only the Sample was actually tested. This phrase shall only be used for the purpose of product advertisement or product promotion (eg; brochures). For avoidance of doubt, the statement shall not be used on the sample and packaging of the sample.
7. In the event there is an investigation from a Government Regulatory Agency concerning the Applicant's Test Report, SIRIM QAS International may disclose the information pertaining to the Test Report for purposes of such investigation.
8. Further or in the alternative, it is strictly forbidden unless with prior written approval from the Managing Director of SIRIM QAS International, to represent in any manner whatsoever that SIRIM QAS International, SIRIM and/or other SIRIM's subsidiaries has endorsed, approved or validated the Product of the Applicant in any manner whatsoever.
9. In the event the Applicant is found in breach of this provision, SIRIM QAS International, SIRIM and/or other SIRIM's subsidiaries without prejudice to any other rights and remedies may take whatever action necessary including but not limited to:
  - a) Informing and placing a notice in the media;
  - b) Obtaining an injunction from Court (cost on a solicitor-client basis to be borne by the Applicant);
  - c) Refusing to accept any further Product for Testing Services from the Applicant or whosoever related to the Applicant, whether subsidiary or otherwise;
  - d) Instructing the Applicant to withdraw and recall the advertisement, statement or document in question and advertise a clarification and apology to SIRIM QAS International, SIRIM and/or other SIRIM's subsidiaries twice in a national publication of SIRIM QAS International's choice at the Applicant's sole cost; and
  - e) Informing or lodging a report pertaining the Applicant's Test Report with the relevant authorities.
10. Certified true copies of the Test Report may be issued upon request by the Applicant upon payment of the relevant fee.
11. Corrections to test report shall only be allowed within 6 months from issuance date of the test report and shall be limited to maximum 3 times, after either case whichever occurs earlier, a new test report shall be issued and replace the previous one (having error(s) or lack of information). Issuance of Supplementary Report to the original Test Report shall be for the followings;
  - a) Misprints and typo errors
  - b) Missing technical information
  - c) Test data not reported
  - d) Mistake in reporting of test data