



Testing. Advising. Assuring.

Huya Modern Ventilation & Insulation Systems Factory
PO Box 284,
Dammam 31411
Saudi Arabia

21st March 2014
Our ref: 336650 (Issue 2)
Your Order No: 9614000016

Dear Adam

We enclose a copy of our laboratory record sheet relating to the indicative surface spread of flame tests to BS 476: Part 7: 1997 which were recently performed on two specimens of your nominally 21mm thick aluminium foil faced and backed PIR insulation foam product. The specimens were conditioned prior to testing.

The specimens were sampled and selected by a representative of **Warrington Certification Ltd**; these specimens were then supplied by yourselves on the 20th January 2014. **Exova Warringtonfire** was not involved in any sampling or selection procedure.

These test results relate to an exploratory investigation which utilised the test methodology given in BS 476: Part 7: 1997: the full requirements of the Standard were not, however, complied with. The information is provided for your information only and should not be used to demonstrate performance against the Standard nor compliance with a regulatory requirement. The tests were not conducted under the requirements of UKAS accreditation.

The flame spread limits for the various classifications specified in BS 476: Part 7: 1997 are given in the Table on the reverse of the laboratory record sheet. Six identical specimens are normally required to be tested (additional specimens may be required to be tested under certain conditions). At least 5 of the 6 test specimens shall have a flame spread which does not exceed the 1.5 minute limit and the final limit specified for the designated class. The remaining specimen may exceed this limit but not by more than the assigned tolerances.

If you require guidance on the interpretation of the results or we can assist in any other way, please do not hesitate to contact us.

Yours sincerely

A handwritten signature in black ink that reads "C. Meachin".

C. Meachin
Technical Officer
Reaction to Fire Testing

Exova Warringtonfire
Holmesfield Road
Warrington WA1 2DS
Tel: (01925) 655116
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WF No: 336650 (Issue 2)

TEST: Indicative

DATE: 23rd January 2014

SURFACE SPREAD OF FLAME TEST – BS 476: PART 7: 1997
LABORATORY RECORD SHEET

Client Huya Modern Ventilation & Insulation Systems **Observers** --
 Factory

Material Description Nominally 21mm thick aluminium foil faced and backed PIR insulation foam product

Face Tested One **Modified Specimens** -- **Reduced Specimens** --

Clients Reference																		
Specimen No.	1		2		3		4		5		6		7		8		9	
Travel at 1½ mins	<50mm		<50mm		mm		mm		mm		mm		mm		mm		mm	
Time to Travel	min	sec	min	sec	min	sec	min	sec	min	sec	min	sec	min	sec	min	sec	min	sec
75mm																		
165mm																		
190mm																		
215mm																		
240mm																		
265mm																		
290mm																		
375mm																		
455mm																		
500mm																		
525mm																		
600mm																		
675mm																		
710mm																		
750mm																		
785mm																		
825mm																		
Time to Final Travel	1	00	1	00														
Final Travel	<50mm		<50mm		mm		mm		mm		mm		mm		mm		mm	

Softening / delamination? -- **More than 6 specimens Tested** --

Any supplementary observations? --

Designation Class Not applicable

Tested By: A. Kugathas

*Indicative tests are normally performed in the same way as formal tests but on a reduced number of specimens. They are conducted only for the purposes of the sponsor of the test, mainly for research and development purposes. The full conditions of the Standard will not be complied with in terms of number of specimens tested, specimen construction and/or conditioning requirements. Indicative test results should not be accepted as a substitute for formal test results obtained in accordance with the requirements of the standard.

SUPPLEMENTARY OBSERVATIONS:

None.

CLASSIFICATION OF FLAME

<u>CLASSIFICATION</u>	SPREAD OF FLAME AT 1.5 MIN		FINAL SPREAD OF FLAME	
	LIMIT	LIMIT FOR ONE SPECIMEN IN SAMPLE	LIMIT	LIMIT FOR ONE SPECIMEN IN SAMPLE
	<u>mm</u>	<u>mm</u>	<u>mm</u>	<u>mm</u>
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			

Explanation of prefix and suffixes which may be added to the classification

1. A suffix R is added to the classification if more than six specimens are required in order to obtain six valid test results (e.g. Class 2R).
2. A prefix D is added to the classification of any product which does not comply with the surface characteristics specified in the Standard and has therefore been tested in a modified form (e.g. Class D3).
3. A suffix Y is added to the classification if any softening and/or other behaviour that may affect the flame spread occurs (e.g. Class 3Y).

For example, a classification of D3RY could be achieved by indicating (a) a modified surface has been used; (b) a class 3 result has been obtained; (c) additional specimens have been used to obtain 6 valid results and; (d) softening and/or other behaviour has occurred which is considered to have affected the test result.