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BS 476: Part 7: 1997 on K-Flex IN Clad Foil

Prepared for:
L'Isolante K-Flex Srl
Via Leonardo da Vinci, 36
20877 RONCELLO (MB)
Italy

30th October 2012

Test report number 282730

UKAS TESTING

0578

Protecting People, Property and the Planet

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1 Objective

To test and classify the sample described in Section 2 to the surface spread of flame characteristics, as shown by the surface spread of flame test and criteria of British Standard 476: Part 7 : 1997[1].

2 Sample

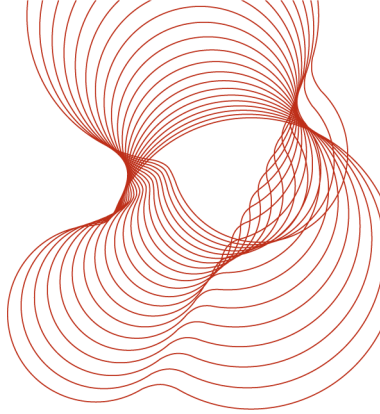
2.1 Traceability

The test samples were supplied by the test sponsor. BRE Global were not involved in the sample selection process and therefore cannot comment upon the relationship between samples supplied for test and the product supplied to market.

2.2 Description of sample and test format.

Unless otherwise stated all measurements are nominal.

Test Sponsor	L'Isolante K-Flex Srl Via Leonardo da Vinci, 36 20877 RONCELLO (MB) Italy
Manufacturer of sample	Not given
Sample name/reference	K-Flex IN Clad Foil
Sample description (as provided by test sponsor/manufacturer)	K-Flex IN Clad Foil, chlorinated polymers with fillers and flame retarders 1mm thick, density 1,7 g/cm3 colour grey Adhered to steel substrate, 1mm thick, using glue K-414
Description of specimens (as received)	Grey rubber like material adhered to metal sheet
Mean sample weight per unit area (kg/m^2)	8.0
Sample thickness (as measured) (mm)	2.3
Sample receipt date	4th October 2012
Test face	K-Flex IN Clad Foil
Test format	The specimens were tested with 12mm calcium silicate boards behind/.
Date of test	19th October 2012



3 Conditioning

The specimens were conditioned as required by the standard.

4 Results

4.1 Flame spread data

Table 1 shows the observed spread of flame for each specimen at 1.5 minutes, 10 minutes and time to reach maximum flame spread distance.

Table 2 shows the time it takes to reach each reference point in seconds if applicable.

Table 1

Test Run	Specimen	Flame spread distance at 1.5 minutes (mm)	Flame spread distance at 10 minutes (mm)	Time to reach maximum flame spread distance (minutes:seconds)
1	1	70	70	0:45
2	2	75	75	0:37
3	3	70	70	0:35
4	4	75	75	0:52
5	5	75	75	0:37
6	6	70	70	0:42

Table 2

Test run	Specimen	Time to reach each reference point (mm) in minutes:seconds													
		75	**165**	190	**215**	240	**265**	290	375	**455**	500	525	600	675	**710**
1	1														
2	2														
3	3														
4	4														
5	5														
6	6														

4.2 Observations.

Specimen	Observations
1	Sustained flaming ceased at 60 seconds with the extinction of the pilot flame. Transient flaming up to 190mm continued to approximately 5 minutes
2	Sustained flaming ceased at 60 seconds with the extinction of the pilot flame. Transient flaming up to 160mm continued to approximately 4minutes:30seconds
3	Sustained flaming ceased at 60 seconds with the extinction of the pilot flame. Transient flaming up to 160mm continued to approximately 5 minutes
4	Sustained flaming ceased at 60 seconds with the extinction of the pilot flame. Transient flaming up to 190mm continued to approximately 5 minutes
5	Sustained flaming ceased at 60 seconds with the extinction of the pilot flame. Transient flaming up to 200mm continued to approximately 4minutes:30seconds
6	Sustained flaming ceased at 60 seconds with the extinction of the pilot flame. Transient flaming up to 190mm continued to approximately 5 minutes

5 Classification

Exposed surfaces of materials used as linings for walls and ceilings are classified in Section 11 of the standard according to the rate and distance of spread of flame across them as shown in Table 3.

Table 3

Classification	Spread of flame at 1.5min		Final spread of flame	
	Limit mm	Limit for one specimen in sample mm	Limit mm	Limit for one specimen in 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 of Class 3			

6 Conclusion

The results of this test show that the above sample as described in this report, when tested and classified in accordance with BS 476 : Part 7 : 1997, achieved Class 1..

7 Validity

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

The specification and interpretation of fire test methods are the subject of ongoing development and refinement. Changes in associated legislation may also occur. For these reasons it is recommended that the relevance of test reports over 5 years old should be considered by the user. The laboratory that issued the report will be able to offer, on behalf of the legal owner, a review of the procedures adopted for a particular test to ensure that they are consistent with current practices, and if required may endorse the test report.

8 Reference

1. Fire tests on building materials and structures. Part 7. Method of test to determine the classification of the surface spread of flame of products. British Standard 476 : Part 7 : 1997. British Standards Institution, London, 1997.

==========REPORT ENDS==========