



**Interscience Fire Laboratory**

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**Test Report: ICL/H18/9163**

**BS 476: Part 7 :1997 (2016)**

**Method for classification of the surface spread of flame of products**

**Sponsored By**

Tensid UK Limited

Unit 1 Craven Court, Canada Road,

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**1 Purpose of Test**

To determine the surface spread of flame characteristic of a flexible foam panel.

**2 Description of Test Specimen**

The description of the specimen given below has been prepared from information provided by the sponsor of the test and Interscience Communications Ltd was not involved in any selection or sampling procedure.

The product was a two part paint referenced “L F P L i n e M a r k i n g P a i n t” consisting of Part a as base and Part B as an activator.

The sponsor of the test stated that the rate of application is 4 to 5m<sup>2</sup>/litre on one face of a 5mm thick inert board. The sponsor of the test has supplied Technical data / safety sheets relating to the product and these are held on our file relating to this investigation.

The sponsor of the test did not provide further details relating to the composition of the foam and method of bonding the foam to the aluminium sheet.

**3 Conditioning of Test Specimens**

The specimens were received on 3<sup>rd</sup> April 2018

The sample was conditioned to constant mass at a temperature of 23±2°C and a relative humidity of 50±10% and maintained in this condition until required for testing.

**4 Date of Test**

The test was performed on 8<sup>th</sup> May 2018

## 5 Test Procedure

The test was carried out in accordance with BS 476: Part 7: 1997 (2016).

The following were recorded:-

- the time at which the flame front crosses each vertical reference line;
- the maximum extent of flame spread during the first 1.5 min from the start of the test;
- the maximum extent of flame spread during the whole test i.e. 10 min or less (if applicable);
- the time (and distance) at which maximum flame spread is reached.

The flame spread at 1.5min and the final flame spread results were compared with the standard class limits and a classification was assigned.

Note: This test was subcontracted to another UKAS accredited test laboratory.

## 6 Test Results

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

The test results relate only to the specimens of the product in the form in which they were tested. Small differences in the composition or thickness of the product may significantly affect the performance during the test and may therefore invalidate the test results. Uncertainty measurement has not been taken into account when presenting the test results.

### BS 476 Part 7 Surface spread of Flame test results:

Specimen No	Flame spread at 1.5mins (mm)	Maximum flame spread (mm)	Time to reach maximum flame spread (sec)
1	105	165	221
2	70	70	61
3	105	105	98
4	55	55	61
5	55	55	60
6	125	125	93

Specimen No	Time to reach each reference point (mm) in Minutes-sec							
	75	165	215	265	455	710	785	825
1	43	122	--	--	--	--	--	--
2	--	--	--	--	--	--	--	--
3	49	--	--	--	--	--	--	--
4	--	--	--	--	--	--	--	--
5	--	--	--	--	--	--	--	--
6	48	--	--	--	--	--	--	--

### Observations

None.

## 7 Requirements

The class limits for flame spread, detailed in BS 476: Part 7: are set out below:

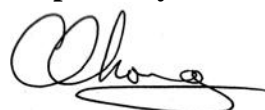
Classification	Flame spread at 1.5mins (mm)	Final flame spread (mm)
1	165 (+25)	165 (+25)
2	215 (+25)	455 (+25)
3	265 (+25)	710 (+25)
4	Exceeding class 3 limits	Exceeding class 3 limits

Note: A definitive classification is based on a sample of six specimens and the figure in brackets gives the tolerance by which one specimen in six may exceed the class limit assigned.

## 8 Conclusion

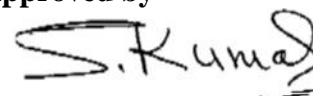
The test results show that the product meets the requirements of Class 1.

Prepared by



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Approved by



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