



**FIRE
TECHNOLOGY
SERVICES**

Confidential Report

Our Ref: 27/03895/05/16

Notified Body
for PPE Directive,
Construction
Products

**Fire Technology Services
A division of BTTG T & C Ltd
Wira House, West Park Ring Road,
Leeds, LS16 6QL**

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BTTG Testing & Certification Ltd.
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31 May 2016

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Client: Macflex International Limited
Macflex House
Hill Farm
Upper Heyford
Northants
NN7 3NB

Job Title: **Fire Test on One Sample of Material**

Clients Order Ref: 23128

Date of Receipt: 12 May 2016

Description of Sample: One sample of material, referenced: **Polyweave**.

Work Requested: Fire Technology Services were requested to carry out a fire test on the sample supplied to BS 476 Part 7 (Indicative).



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FIRE TESTS ACCORDING TO BS 476:PART 7:1987 (AS AMENDED) (Method for classification of the surface spread of flame of products) (Indicative)

Date of Test: 25/05/2016

Conditioning

The sample was conditioned to constant mass at a temperature of $23\pm 2^{\circ}\text{C}$ and a relative humidity of $50\pm 10\%$ and maintained in this condition until required for testing.

Procedure

The test was carried out in accordance with BS 476: Part 7: 1987(1993). The sponsor sampled the material and the specimen was cut from the sample to the dimensions set out in the standard by FTS. The specimen was tested loose laid onto 12mm calcium silicate board.

Only one specimen was tested. It should be noted that the above standard requires a minimum of six specimens to be tested.

The following were recorded:-

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



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Requirements

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

	Flame spread at 1.5 min (mm)	Final flame spread (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.	

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

Results

The test results relate only to the behaviour of the test 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.

<u>Time for flame spread to reach (s)</u> <u>(mm)</u>					<u>Flame spread</u> <u>at 1.5 min</u> <u>(mm)</u>	<u>Maximum</u> <u>flame spread</u> <u>(mm)</u>	<u>Time to reach</u> <u>maximum flame</u> <u>spread (s)</u>
165	215	265	455	710			
57	66	67	---	---	280	380	410

The results indicate that the sample met the performance requirements of Class 3 indicative.



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Comments

Only one specimen was tested. No guarantee can be given as to the outcome of definitive testing. This report does not have the status of a full UKAS Accredited Test Certificate, therefore, it cannot be substituted or used as such.

Uncertainty of measurement has not been taken into account when presenting the test result. The relevant uncertainty value is included as an annex which forms an integral part of the report.

Reported by:.....*B Marsden*..... B Marsden (Mrs), Fire Technician

Countersigned by:.....*[Signature]*..... P Doherty, Operational Head

Enquiries concerning this report should be addressed to Customer Services.



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Uncertainty Budget - Annex

The overall uncertainty budget for BS 476-7:1987 is as follows:-

Overall: $\pm 20\%$