



# Confidential Report

Our Ref: 27/05637/06/21





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Date: 29 June 2021  
Our Ref: 27/05637/06/21  
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**Client:** Camira Fabrics Ltd

The Watermill  
Wheatley Park  
Mirfield  
West Yorkshire  
WF14 8HE

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

**Clients Order Ref:** 83A12189

**Date of Receipt:** 15 June 2021

**Description of Sample:** One sample of material, referenced; .  
Call: 12755 Quest  
Sample Name: Quest  
Batch: 473907  
Colour: Rust

**Work Requested:** We were asked to make the following test(s):

BS 476: Part 7

- \* subcontracted test, UKAS accredited
- \*\* subcontracted test, EN ISO/IEC 17025 accredited
- \*\*\* not UKAS accredited

Note: This report relates only to the samples submitted and as described in the report.



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## FIRE TESTS ACCORDING TO BS 476-7:1987 (Including Amendments)

**Fire tests on building materials and structures. Method of test to determine the classification of the surface spread of flame of products**

Date of Test: 28/06/2021

### 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.

### Mounting Method

Each specimen was tested fully adhered to a 12mm calcium silicate board, using PVA adhesive.

### Procedure

The test was carried out in accordance with BS 476-7:1987.

The irradiance measured at the 75mm point obtained during calibration is  $30.5\text{kW/m}^2$ , BS 476:Part 7 specifies an irradiance of  $32.5 \pm 0.5\text{kW/m}^2$ . Although the irradiance at the first point is slightly lower than the specified limit, the remaining points at 225mm, 375mm, 525mm, 675mm and 825mm were all within the specified limits.

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.



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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.

Time for flame spread to reach (s)								Flame spread at 1.5 min (mm)	Maximum flame spread (mm)	Time to reach maximum flame spread (s)
75	165	215	265	455	710	785	825			
46	--	--	--	--	--	--	--	75	75	60
--	--	--	--	--	--	--	--	50	50	60
--	--	--	--	--	--	--	--	60	60	60
--	--	--	--	--	--	--	--	60	60	60
--	--	--	--	--	--	--	--	50	50	60
--	--	--	--	--	--	--	--	60	60	60



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## Observations

Specimens 3 to 6, hole formed at 20 seconds, melted and shrunk back to the board leaving fingers of melted specimen to the board.

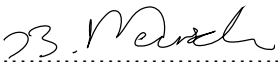
## Classification

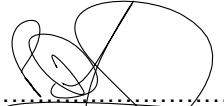
The results indicate the sample meets the performance requirements of Class 1.Y.

A suffix Y is added to the classification if any softening and/or any other behaviour that may effect the flame spread occurs. The Y suffix was added to this classification due to specimen softening and slumping within the holder after the initial first minute of testing.

An estimation of uncertainty of measurement has been taken into account when making a judgment to any pass/fail criteria. Under our Policy we have used a non-binary decision rule.

See our Decision rules Policy (<http://www.bttg.co.uk/decision-rules-policy>) for further information.

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

Countersigned by:.....  ..... P Doherty Manager

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:  $\pm 20\%$



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