



**FIRE
TECHNOLOGY
SERVICES**

Confidential Report

Our Ref: 27/03037A/01/14

Notified Body
for PPE Directive,
Construction Products Directive
& Marine Equipment Directive
I.D. No. 0338 & 0339

**Fire Technology Services
A division of BTTG T & C Ltd
Wira House, West Park Ring Road,
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BTTG Testing & Certification Ltd.
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4 February 2014

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Client: Grafityp UK Ltd
Grafitack House
103 Mariner
Lichfield Road Industrial Estate
Tamworth
Staffordshire
B79 7UL

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

Clients Order Ref: --

Date of Receipt: 23 January 2014

Description of Sample: One sample of material, referenced: **PC80 Polymeric Carbon Fibre.**

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





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Grafityp UK Ltd

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

Date of Test: 03/02/14

Conditioning

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

Procedure

The test was carried out in accordance with BS 476: Part 7: 1987. The sponsor sampled the material and the panels were cut from the sample to the dimensions set out in the standard by the sponsor. The specimens were tested stuck down onto 12mm calcium silicate board using self adhesive back

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.

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.





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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) (mm)					Flame spread at 1.5 min (mm)	Maximum flame spread (mm)	Time to reach maximum flame spread (s)
165	215	265	455	710			
--	--	--	--	--	60	60	60
--	--	--	--	--	60	60	60
--	--	--	--	--	60	60	60
--	--	--	--	--	60	60	60
--	--	--	--	--	60	60	60
--	--	--	--	--	60	60	60

The results indicate that the sample met the performance requirements of Class 1.

Observations

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An estimation of uncertainty of measurement has not been taken into account when making a judgement to any pass/fail criteria.

Reported by:.....  R Ryan, Fire Technician

Countersigned by:.....  P Doherty, Operational Head

Enquiries concerning this report should be addressed to Customer Services.

