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Our Ref: 2702111/11/10
Your Ref:
Order No:

8 November 2010
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Client: Grafityp UK Ltd
Grafitack House
103 Mariner
Tamworth
Staffordshire
B79 7UL

Job Title: **Fire Test on One Sample of Adhesive Film**

Material received: 1 November 2010

Description of Sample: One sample of film, referenced: **Grafityp GEF (Ecologically Friendly Film) Polyolefine Sign Making Film**
Grafityp GEF films are marketed under the product names:

- Grafitack GEF series (matt and glossy sign making films)
- Grafitack EFTR01 and EFTRx1 (sandblast effect films)
- Grafiprint GEF ES (white print film)
- Grafiprint GEF UV (white print film)
- Grafiprint GEF LX (white print film)
- Grafiprint GEF AW (white print film)
- Grafiprint LAM121, LAM130 and LAM171 (laminates)

Brief: Fire Technology Services were requested to carry out a fire test on the sample supplied to BS 476 Part 7.

UKAS Accreditation: Our laboratories are UKAS accredited. However, it should be noted that tests marked * are not UKAS accredited in this report. They are not included in the UKAS Accreditation Schedule for our laboratory, either due to the work not conforming fully to the standard (e.g. reduced number of specimens) or to it being outside the scope of our accreditation, or subcontracted.

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

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**FIRE TESTS ACCORDING TO BS476:PART 7:1987 (AS AMENDED)
 (Method for classification of the surface spread of flame of products)**

Date of Test: 8/11/2010

Conditioning

The samples 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 specimens were cut from the sample to the dimensions set out in the standard by FTS. The sign making film specimens were tested stuck to 12mm calcium silicate boards.

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 1.5 min 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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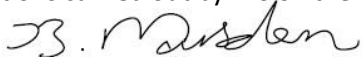
Results

The test results relate only to the behavior 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.

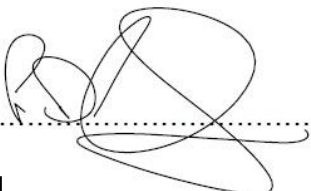
Time for flame Spread to reach (s) (mm)					Flame spread At 1.5 min (mm)	Maximum Flame spread (mm)	Time to reach maximum flame spread (s)
165	215	265	455	710			
					60	60	60
					60	60	60
					60	60	60
					60	60	60
					60	60	60
					60	60	60

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

The information contained on page no's 1/3 of this certificate is hereby certified to be a correct statement of the tests and investigations carried out by FTS on the materials referred to.

Signed  Date: 10 November 2010

Mrs B Marsden
 Fire Technician

Reported By  Date: 10 November 2010

P Doherty
 Operational Head

