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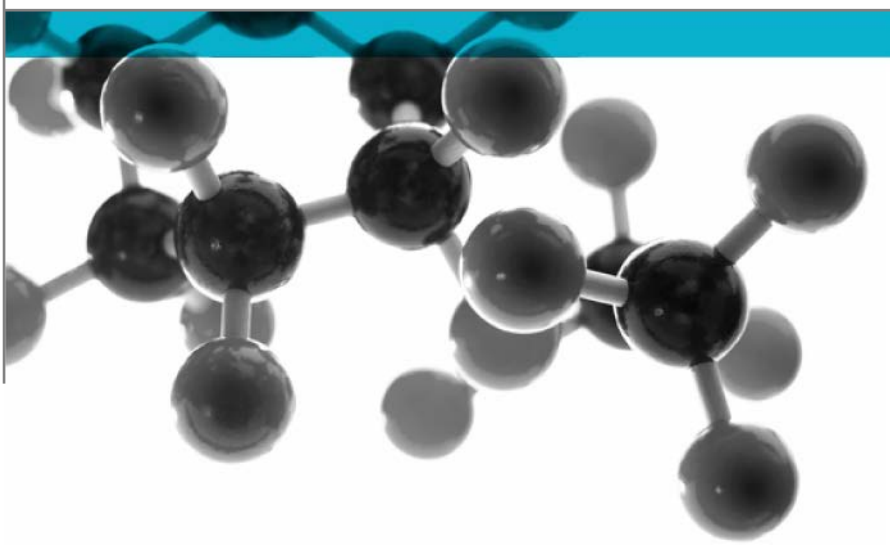
BS EN ISO 11925-2: 2010



Ignitability Of Building Products Subjected To Direct Impingement Of Flame

Part 2: Single Flame Source Test

A Report To: All Print Supplies Ltd

Document Reference: 364722

Date: 28th July 2016

Issue No.: 1

Testing
Advising
Assuring

UKAS TESTING
0249

Executive Summary

Objective To determine the performance of the following product when tested in accordance with BS EN ISO 11925-2:2010.

Generic Description	Product reference	Thickness	Weight per unit area or density
Self-adhesive vinyl adhered to a plasterboard substrate	"LG Window Etch Vinyl"	12.76mm *	8.49kg/m^2 *
Individual components used to manufacture composite:			
Self-adhesive film	"LG Window Etch Vinyl"	80-100 microns	Unable to provide
Substrate	"Gyproc Soundbloc"	12.5mm	700kg/m^2
***Determined by Exova Warringtonfire**			
Please see pages 5 & 6 of this test report for the full description of the product tested			

Test Sponsor All Print Supplies Ltd, 7B Fairlie Road, Slough, SL1 4PY

Test Results:

On the set of six specimens which were subject to surface application, the maximum flame height reached was observed to be 50 ± 0.9mm.

On the set of six specimens which were subject to edge application, the maximum flame height reached was observed to be 40 ± 0.9mm

The reported expanded uncertainty is based on a standard uncertainty multiplied by a coverage factor k=2, providing a coverage probability of approximately 95%. The uncertainty evaluation has been carried out in accordance with UKAS requirements.

Date of Test 3rd June 2016

Signatories

Responsible Officer K. Hughes * Technical Officer	Authorised S. Deeming * Business Unit Head

* For and on behalf of **Exova Warringtonfire**.

Report Issued: 28th July 2016

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CONTENTS **PAGE NO.**

Test Details

Purpose of test

To determine the performance of specimens of a product when they are subjected to the conditions of the test specified in BS EN ISO 11925-2:2010 "Reaction to Fire tests - Ignitability Of Building Products Subjected to Direct Impingement of Flame – Part 2: Single Flame Source Test".

The test was performed in accordance with the procedure specified in BS EN ISO 11925-2:2010 Reaction to Fire Tests - Ignitability of Building Products subjected to direct impingement of flame – Part 2: Single Flame Source Test, and this report should be read in conjunction with that BS EN ISO Standard.

Scope of test

BS EN ISO 11925-2 specifies a method of test for determining the ignitability of building products by direct small flame impingement under zero impressed irradiance using specimens tested in a vertical orientation.

Fire test study group/EGOLF

Certain aspects of some fire test specifications are open to different interpretations. The Fire Test Study Group and EGOLF have identified a number of such areas and has agreed Resolutions which define common agreement of interpretations between fire test laboratories which are members of the Groups. Where such Resolutions are applicable to this test they have been followed.

Instruction to test

The test was conducted on the 3rd June 2016 at the request of All Print Supplies Ltd, the sponsor of the test.

Provision of test specimens

The specimens were supplied by the sponsor of the test. **Exova Warringtonfire** was not involved in any selection or sampling procedure. **Exova Warringtonfire** supplied the substrate and bonded the composite together.

Conditioning of specimens

The specimens were received on the 3rd May 2016.

Prior to test the specimens were stored for 2 days in a standard atmosphere as defined in BS EN 13238:2010 Conditioning Procedures and General Rules for selection of substrates until constant mass was achieved.

Intended application

Internal and external signage.

Substrate

The specimens were tested adhered to a plasterboard substrate.

Flame application time

The flame was applied for 30 seconds.

Description of Test Specimens

The description of the specimens given below has been prepared from information provided by the sponsor of the test. All values quoted are nominal, unless tolerances are given.

General description			Self-adhesive vinyl adhered to a plasterboard substrate
Product reference			"LG Window Etch Vinyl"
Name of manufacturer			LG Hausys
Thickness			12.76mm (determined by **Exova Warringtonfire**)
Weight per unit area			8.49kg/m^2 (determined by **Exova Warringtonfire**)
Self-adhesive film	Product reference		"LG Window Etch Vinyl"
	Name of manufacturer		LG Hausys
	Thickness		80 - 100 microns
	Density / weight per unit area		**See Note 1 below**
	Tape	Generic type	Calendared PVC
		Product reference	"LG Window Etch Vinyl"
		Detailed description / composition details	PVC film for digital printing and window decoration with adhesive backing and release liner
		Name of manufacturer	LG Hausys
		Thickness	80 – 100 microns
		Density / weight per unit area	**See Note 1 below**
		Colour reference	"Silver" (observed by **Exova Warringtonfire**)
		Flame retardant details	**See Note 2 below**
	Adhesive	Generic type	Acrylic based adhesive
		Product reference	**See Note 3 below**
		Name of manufacturer	**See Note 3 below**
		Colour reference	**See Note 3 below**
		Application rate / thickness	**See Note 3 below**
		Application method	**See Note 3 below**
		Flame retardant details	**See Note 2 below**
		Curing process	**See Note 3 below**
Substrate		Product reference	"Gyproc Soundbloc"
		Generic type	Paper faced plasterboard
		Name of manufacturer	British Gypsum
		Thickness	12.5mm
		Density	700kg/m^3
		Flame retardant details	**See Note 1 below**
Brief description of manufacturing process			**See Note 1 below**

Note 1: The sponsor was unable to provide this information.

Note 2: The sponsor of the test has confirmed that no flame retardant additives were utilised in the production of the component.

Note 3: The sponsor was unwilling to provide this information.

Test Results

Number of specimens tested

Six specimens were tested, each of which were subjected to surface exposure to flame with the decorative face exposed.

Six specimens were tested, each of which were subjected to edge exposure to flame with the decorative face exposed.

Applicability of test results

The test results relate to the behaviour of the test specimens of a product under the particular conditions of the 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. Care should be taken to ensure that any product which is supplied or used is fully represented by the specimens which were tested.

The test results for the individual specimens, together with observations made during the test and comments on any difficulties encountered during the test are given in Tables 1 and 2.

On the set of six specimens which were subject to surface application, the maximum flame height reached was observed to be 50 ± 0.9mm.

On the set of six specimens which were subject to edge application, the maximum flame height reached was observed to be 40 ± 0.9mm

The reported expanded uncertainty is based on a standard uncertainty multiplied by a coverage factor k=2, providing a coverage probability of approximately 95%. The uncertainty evaluation has been carried out in accordance with UKAS requirements.

Validity

The specification and interpretation of fire test methods are the subject of ongoing development and refinement. Changes in associated legislation may also occur. For these reasons it is recommended that the relevance of test reports over five years old should be considered by the user. The laboratory that issued the report will be able to offer, on behalf of the legal owner, a review of the procedures adopted for a particular test to ensure that they are consistent with current practices, and if required may endorse the test report.

Table 1

Test Flame Application Position - Surface Of Decorative Face

Specimen No.	Ignition Yes/No	Time from start of test for flame tip to reach 150mm (seconds)	Extent of Flame Spread (± 0.9 mm)	Flaming Debris	Glowing	Extent of Damaged Area (mm)	
						Height	Width
1	Yes	Did not reach	50	None	None	75	17
2	Yes	Did not reach	40	None	None	80	19
3	Yes	Did not reach	50	None	None	70	16
4	Yes	Did not reach	40	None	None	72	17
5	Yes	Did not reach	50	None	None	82	17
6	Yes	Did not reach	40	None	None	76	16

Table 2

Test Flame Application Position - Edge Of Decorative Face

Specimen No.	Ignition Yes/No	Time from start of test for flame tip to reach 150mm (seconds)	Extent of Flame Spread (± 0.9 mm)	Flaming Debris	Glowing	Extent of Damaged Area (mm)	
						Height	Width
1	Yes	Did not reach	30	None	None	48	15
2	Yes	Did not reach	30	None	None	50	17
3	Yes	Did not reach	30	None	None	55	17
4	Yes	Did not reach	30	None	None	52	15
5	Yes	Did not reach	20	None	None	53	15
6	Yes	Did not reach	40	None	None	56	16

Revision History

Issue No :	Re-issue Date :
Revised By:	Approved By:
Reason for Revision:	

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