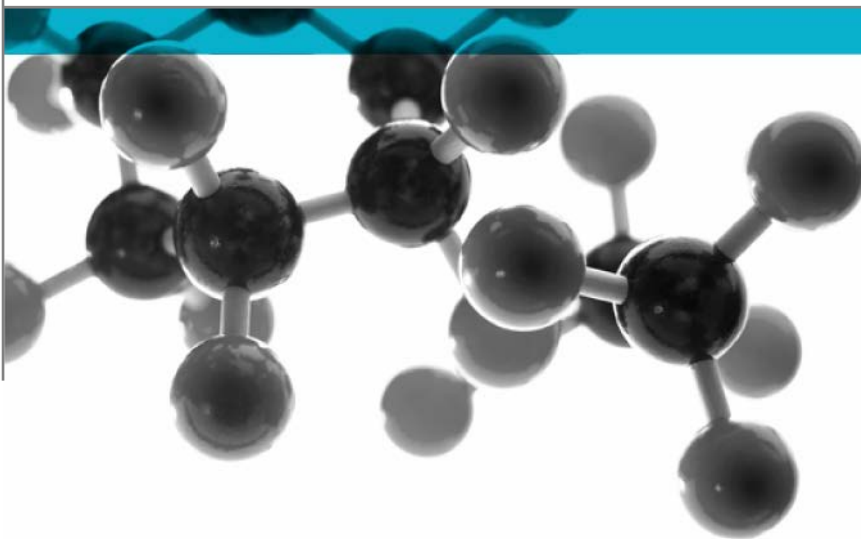


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BS EN ISO 11925-2: 2010



Ignitability Of Building Products Subjected To Direct Impingement Of Flame Part 2: Single Flame Source Test

A Report To: Newmor

Document Reference: 330247

Date: 6th August 2013

Issue No.: 1

Page 1

Testing
Advising
Assuring



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
15oz woven backed wallcovering bonded to one face of a fibre cement board substrate utilising a PVA based adhesive	"144757"	8.66mm*	15.98kg/m ² *
Individual components used to manufacture composite:			
PVC film	"Vinyl"	0.19mm	1.4g/cm ³
Fabric	"Woven Polycotton Backing"	0.23mm	0.03kg/m ²
Adhesive (wallcovering to substrate)	"Dixon Turner Heavy"	Not stated	200g/m ²
Primer	"ET Primaseal"	Not stated	85g/m ²
Substrate	"NT D4 604"	8mm	1800kg/m ³
Please see pages 5 and 6 of this test report for the full description of the product tested			
*determined by Exova Warringtonfire			


Test Sponsor Newmor, Madoc Works, Henfaes Lane, Welshpool, Montgomeryshire, SY21 7BE

Test Results: On each set of six specimens which were tested, the flame tip did not reach a distance of 150mm before the end of the test.

Date of Test 24th July 2013

Signatories


Responsible Officer K. Hughes * Technical Officer


Authorised S Deeming* Operations Manager

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

Report Issued: 6th August 2013

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Document No.: 330247
 Author: K Hughes
 Client: Newmor

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Test Details

Purpose of test	<p>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".</p> <p>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.</p>
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 have 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 24 th July 2013 at the request of Newmor, 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. The sponsor supplied the adhesive and Exova Warringtonfire supplied the substrate, primer and bonded the composite together.
Conditioning of specimens	<p>The specimens were received on the 13th June 2013.</p> <p>Prior to test the specimens were stored for two 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.</p>
Intended application	Internal wall lining.
Substrate	The specimens were tested bonded to a fibre cement board 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		15oz woven backed wallcovering bonded to one face of a fibre cement board substrate utilising a PVA based adhesive
Product reference of overall composite		"144757"
Name of manufacturer of overall composite		"Roysons"
Thickness of wallcovering		0.44mm (stated by sponsor) 0.34mm (determined by Exova Warringtonfire)
Weight per unit area of wallcovering		0.50kg/m ² (stated by sponsor) 0.35kg/m ² (determined by Exova Warringtonfire)
Overall thickness of composite		8.66mm (determined by Exova Warringtonfire)
Overall weight per unit area of composite		15.98kg/m ² (determined by Exova Warringtonfire)
PVC film	Generic type	Polyvinyl chloride (PVC) film
	Product reference	"Vinyl"
	Name of manufacturer	See Note 1 below
	Colour reference	"Off White"
	Number of coats	One
	Thickness	0.25mm
	Density	1.4g/cm ³
	Application method	Lamination to backing
	Curing process per coat	Hot lamination – 300°F for a duration of 30 seconds
	Flame retardant details	See Note 2 below
Fabric	Generic type	Woven polycotton backing
	Product reference	"Woven Polycotton Backing"
	Composition details	Polyester 85%, cotton 15%
	Name of manufacturer	See Note 1 below
	Thickness	0.23mm
	Weight per unit area	0.03kg/m ²
	Colour reference	"Off white"
	Pattern reference	"Cotton"
	Type of weave	30x14
	Flame retardant details	See Note 2 below
Adhesive	Generic type	Polyvinyl acetate (PVA) / starch / water
	Product reference	"Dixon Turner Heavy"
	Name of manufacturer	See Note 1 below
	Application rate	200g/m ²
	Application method	Lambswool roller
	Flame retardant details	See Note 2 below
	Curing process	Air dry

Continued on next page

Primer	Generic type	Polyvinyl acetate (PVA) / starch / water
	Product reference	"ET Primaseal"
	Name of manufacturer	See Note 1 below
	Number of coats	One
	Application rate	85g/m ²
	Application method	Lambswool roller
	Curing process per coat	Air dry
	Flame retardant details	See Note 2 below
Substrate	Generic type	Fibre cement board
	Product reference	"NT D4 604"
	Name of manufacturer	Scheerders van de Kerkhove (SVK)
	Thickness	8mm
	Density	1800kg/m ³
	Colour reference	"Grey"
Flame retardant details	The substrate is inherently flame retardant	
Brief description of manufacturing process		Laminate vinyl with water-based ink to woven backing

Note 1. The sponsor was unwilling to provide this information.

Note 2. The sponsor of the test has confirmed that no flame retardant additive were utilised in the production of the product / component.

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 each set of six specimens which were tested, the flame tip did not reach a distance of 150mm before the end of the test.

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.

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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 (mm)	Flaming Debris	Glowing	Extent of Damaged Area (mm)	
						Height	Width
1	No	Did not reach	Nil	None	None	40	10
2	No	Did not reach	Nil	None	None	40	10
3	No	Did not reach	Nil	None	None	40	10
4	No	Did not reach	Nil	None	None	45	10
5	No	Did not reach	Nil	None	None	40	10
6	No	Did not reach	Nil	None	None	40	10

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 (mm)	Flaming Debris	Glowing	Extent of Damaged Area (mm)	
						Height	Width
1	No	Did not reach	Nil	None	None	10	15
2	No	Did not reach	Nil	None	None	10	20
3	No	Did not reach	Nil	None	None	15	15
4	No	Did not reach	Nil	None	None	20	25
5	No	Did not reach	Nil	None	None	10	15
6	No	Did not reach	Nil	None	None	10	10

Revision History

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

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Reason for Revision:	