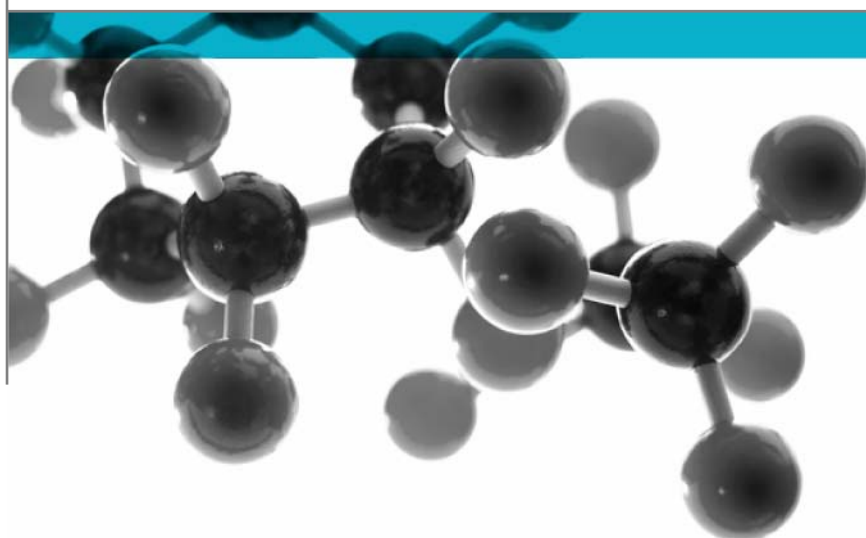


BS EN ISO 11925-2: 2010



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

A Report To: Contra Vision

Document Reference: 312980

Date: 25th November 2011

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.

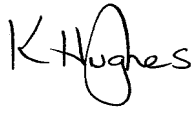
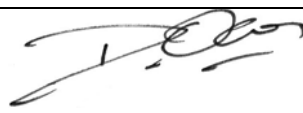
Generic Description	Product reference	Thickness	Weight per unit area
Self-adhesive perforated window film bonded to toughened glass sheet	"Contra Vision [®] Performance [™] / Translucent"	6.07mm *	14.8kg/m ² *
Individual components used to manufacture composite:			
Film (test face)	"Polymeric calendered PVC"	180 microns	150g/m ²
Solvent acrylic adhesive	Not stated	Not stated	28g/m ²
Toughened glass	"6mm toughened"	6mm	14.61kg/m ² *
* Determined by Exova Warringtonfire			
Please see page 5 of this test report for the full description of the product tested			

Test Sponsor Contra Vision, Victoria House, 19-21 Ack Lane East, Bramhall, Stockport, Cheshire, SK7 2BE

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 15th November 2011.

Signatories

	
Responsible Officer K. Hughes * Technical Officer	Approved D. J. Owen * Senior Technical Officer

	* For and on behalf of Exova Warringtonfire .
Authorised T Mort* Senior Technical Officer	Report Issued: 25 th November 2011

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CONTENTS	PAGE NO.
EXECUTIVE SUMMARY	2
SIGNATORIES	2
TEST DETAILS	4
DESCRIPTION OF TEST SPECIMENS	5
TEST RESULTS	6
TABLE 1.....	7
TABLE 2.....	7
REVISION HISTORY	8

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 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 15 th November 2011 at the request of Contra Vision, 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 November 2011. Prior to test the specimens were stored for eight 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	Window film.
Substrate	The specimens were tested bonded to a glass 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 perforated window film
Trade name		"Contra Vision® Performance™ / Translucent"
Thickness of film		180 microns (stated by sponsor) 210 microns (determined by Exova Warringtonfire)
Weight per unit area of film inclusive of adhesive		180g/m ² (stated by sponsor) 172g/m ² (determined by Exova Warringtonfire)
Overall Thickness of composite		6.07mm (determined by Exova Warringtonfire)
Overall Weight per unit area of composite		14.8kg/m ² (determined by Exova Warringtonfire)
Name of manufacturer		Contra Vision Supplies Limited
Perforations	Diameter of holes	1.50mm
	Spacing between hole centres	2.60mm
Film (test face)	Generic type	Polyvinyl chloride (PVC)
	Product reference	"Polymeric calendered PVC"
	Name of manufacturer	Renolit
	Colour	"Translucent white"
	Thickness	180 microns
	Weight per unit area	150g/m ²
	Flame retardant details	See Note 1
Adhesive	Generic type	Solvent acrylic
	Trade name / product reference	See Note 1
	Name of manufacturer	See Note 1
	Application rate	28g/m ²
	Application method	Transferred from coated release liner
	Flame retardant details	See Note 1
Substrate	Generic type	Toughened glass
	Product reference	"6mm toughened"
	Name of supplier	KLG Glass (Chilwell) Ltd
	Colour reference	"Clear"
	Thickness	6mm
	Weight per unit area	14.61kg/m ² (determined by Exova Warringtonfire)
	Flame retardant details	The substrate is inherently flame retardant
Brief description of manufacturing process		Translucent white calendered PVC, adhesive coated and then perforated.

Note 1: 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 film face exposed.

Six specimens were tested, each of which were subjected to edge exposure to flame with the film 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 The Film 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	No	No	20	10
2	No	Did not reach	Nil	No	No	20	10
3	No	Did not reach	Nil	No	No	20	10
4	No	Did not reach	Nil	No	No	20	11
5	No	Did not reach	Nil	No	No	20	10
6	No	Did not reach	Nil	No	No	20	10

Table 2
Test Flame Application Position - Edge Of The Film 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	Yes	Did not reach	20	No	No	30	12
2	Yes	Did not reach	30	No	No	30	15
3	Yes	Did not reach	30	No	No	25	15
4	Yes	Did not reach	20	No	No	25	14
5	Yes	Did not reach	30	No	No	28	15
6	Yes	Did not reach	20	No	No	30	17

Revision History

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

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