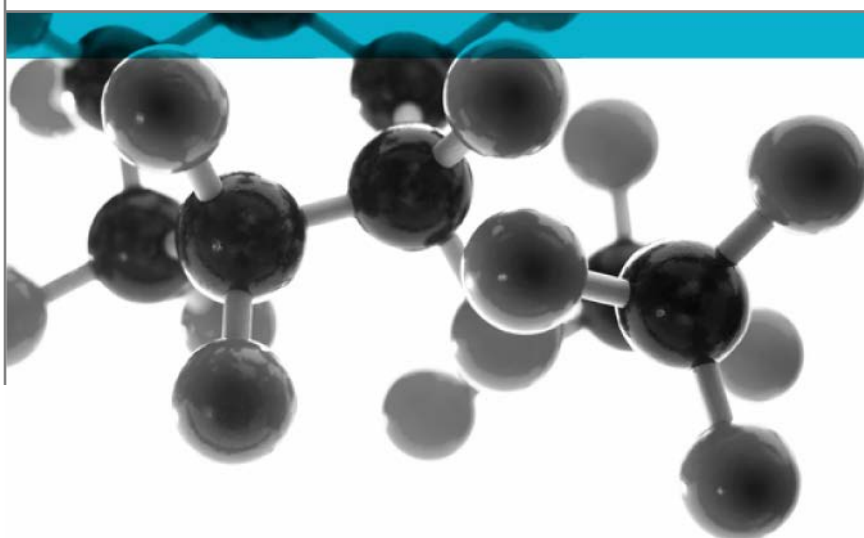


# BS EN ISO 11925-2: 2010



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

A Report To: Teknos (UK) Ltd

Document Reference: 413462

Date: 12<sup>th</sup> June 2019

Issue No.: 1

Page 1



## 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/ Application rate	Weight per unit area or density
SILOKSAN ANTI-CARB is a matt, water-borne and acrylate-based paint applied to a calcium silicate substrate	"Siloksan Anti-carb"	12.15mm*	12.30kg/m <sup>2</sup> *
<b>Individual components used to manufacture composite:</b>			
Water-borne and acrylate-based protective paint for concrete.	"Siloksan Anti Carb"	2 x 75g/m <sup>2</sup>	1.3 kg/l
Calcium silicate based board	"Promat Brandschultzbauplatten; Promat-H"	12mm	870kg/m <sup>3</sup>
*(determined by <a href="#">Warringtonfire</a> )			
<b>Please see page 5 of this test report for the full description of the product tested</b>			

**Test Sponsor** Teknos (UK) Ltd, 7 Longlands Road, Bicester, Oxford, OX26 5AH



**Test Results:** On the set of six specimens which were subject to surface application, the maximum flame height reached was observed to be 0mm.

On the set of six specimens which were subject to edge application, the maximum flame height reached was observed to be 10 ± 0.8mm

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** 2<sup>nd</sup> May 2019

## Signatories

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

\* For and on behalf of [Warringtonfire](#).

Report Issued: 12<sup>th</sup> June 2019

This version of the report has been produced from a .pdf format electronic file that has been provided by [Warringtonfire](#) to the sponsor of the report and must only be reproduced in full. Extracts or abridgements of reports must not be published without permission of [Warringtonfire](#).

Document No.: 413462  
Author: K Hughes  
Client: Teknos (UK) Ltd

Page No.: 2 of 8  
Issue Date: 12<sup>th</sup> June 2019  
Issue No.: 1



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

<b>Purpose of test</b>	<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>
<b>Scope of test</b>	<p>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.</p>
<b>Fire test study group/EGOLF</b>	<p>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.</p>
<b>Instruction to test</b>	<p>The test was conducted on the 2<sup>nd</sup> May 2019 at the request of Teknos (UK) Ltd, the sponsor of the test.</p>
<b>Provision of test specimens</b>	<p>The specimens were supplied by the sponsor of the test. <a href="#">Warringtonfire</a> was not involved in any selection or sampling procedure.</p>
<b>Conditioning of specimens</b>	<p>The specimens were received on the 24<sup>th</sup> April 2019.</p> <p>Prior to test the specimens were stored for three 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>
<b>Exposed face</b>	<p>The coated face of the specimens was exposed to the flame when the specimens were mounted in the test position.</p>
<b>Condition of specimen edges</b>	<p>Coating applied to test face only, not applied to edges.</p>
<b>Intended application</b>	<p>Coating.</p>
<b>Substrate</b>	<p>The specimens were tested against a calcium-silicate substrate.</p>
<b>Flame application time</b>	<p>The flame was applied for 30 seconds.</p>

## Description of Test Specimens

The description of the system given below has been prepared from information provided by the sponsor of the test. This information has not been independently verified by Warringtonfire. All values quoted are nominal, unless tolerances are given.

General description		SILOKSAN ANTI-CARB is a matt, water-borne and acrylate-based paint applied to a calcium silicate substrate
Product reference		"Siloksan Anti-carb"
Name of manufacturer		Teknos (UK) Ltd
Overall thickness		12.15mm (determined by Warringtonfire)
Overall weight per unit area		12.30kg/m <sup>2</sup> (determined by Warringtonfire)
Coating	Generic type	Water-borne and acrylate-based protective paint
	Product reference	"Siloksan Anti Carb"
	Name of manufacturer	Teknos (UK) Ltd
	Colour reference	"White"
	Number of coats	Two
	Application rate per coat	75g/m <sup>2</sup>
	Specific gravity	1.3 kg/l
	Application method	Roller
	Curing process per coat	Airdrying overnight
	Flame retardant details	<b>See Note 1 below</b>
Substrate	Generic type	Calcium silicate based board
	Product reference	"Promat – Brandschultzbauplatten; Promatect-H"
	Name of manufacturer	Promat
	Thickness	12mm
	Density	870kg/m <sup>3</sup>
	Colour reference	"White"
	Flame retardant details	The substrate is inherently flame retardant
Brief description of manufacturing process		<b>See Note 2 below</b>

**Note 1:** The sponsor of the test has confirmed that no flame retardant additives were utilised in the production of the product / component.

**Note 2:** 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 coated face exposed.

Six specimens were tested, each of which were subjected to edge exposure to flame with the coated 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 0mm.**

**On the set of six specimens which were subject to edge application, the maximum flame height reached was observed to be  $10 \pm 0.8\text{mm}$**

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.

This report may only be reproduced in full. Extracts or abridgements shall not be published without permission of [Warringtonfire](#).

Table 1

**Test Flame Application Position - Surface Of Coated Face**

Specimen No.	Ignition Yes/No	Time from start of test for flame tip to reach 150mm (seconds)	Extent of Flame Spread ( $\pm 1.7$ mm)	Flaming Debris	Glowing	Extent of Damaged Area (mm)	
						Height	Width
1	No	Did not reach	Nil	None	None	29	12
2	No	Did not reach	Nil	None	None	31	10
3	No	Did not reach	Nil	None	None	34	8
4	No	Did not reach	Nil	None	None	32	10
5	No	Did not reach	Nil	None	None	35	12
6	No	Did not reach	Nil	None	None	31	14

Table 2

**Test Flame Application Position - Edge Of Coated Face**

Specimen No.	Ignition Yes/No	Time from start of test for flame tip to reach 150mm (seconds)	Extent of Flame Spread ( $\pm 0.8$ mm)	Flaming Debris	Glowing	Extent of Damaged Area (mm)	
						Height	Width
1	Yes	Did not reach	10	None	None	17	13
2	Yes	Did not reach	10	None	None	20	13
3	Yes	Did not reach	10	None	None	18	14
4	Yes	Did not reach	10	None	None	22	10
5	Yes	Did not reach	10	None	None	25	10
6	Yes	Did not reach	10	None	None	22	11

## Revision History

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

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