

**BS 476: Part 7: 1997**

**Method For  
Classification Of The  
Surface Spread Of  
Flame Of Products**

**WF Report Number:**

**150695**

**Date:**

**10<sup>th</sup> January 2006**

**Test Sponsor:**

**Veka AG**



**Warringtonfire Test Report No. 150695**

**BS 476: Part 7: 1997  
Method For Classification Of The  
Surface Spread Of Flame Of Products**

**Sponsored By**

**Veka AG  
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## Test Details

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<b>Purpose of test</b>	To determine the performance of a product when it is subjected to the conditions of the test specified in BS 476: Part 7: 1997, "Fire tests on building materials and structures, method for classification of the surface spread of flame of products". This test was therefore performed in accordance with the procedure specified in BS 476: Part 7: 1997, and this report should be read in conjunction with that British Standard.
<b>Scope of test</b>	BS 476: Part 7: 1997 specifies a method of test for measuring the lateral spread of flame along the surface of a specimen of a product orientated in the vertical position, and a classification system based on the rate and extent of flame spread. It provides data suitable for comparing the performances of essentially flat materials, composites, or assemblies, which are used primarily as the exposed surfaces of walls or ceilings.
<b>Fire test study group/EGOLF</b>	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.
<b>Instruction to test</b>	The test was conducted on the 12 <sup>th</sup> December 2005 at the request of Veka AG, the sponsor of the test.
<b>Provision of test specimens</b>	The specimens were supplied by the sponsor of the test. Warringtonfire was not involved in any selection or sampling procedure.
<b>Conditioning of specimens</b>	The specimens were received on the 14 <sup>th</sup> November 2005 and were conditioned to constant mass at a temperature of $23 \pm 2^{\circ}\text{C}$ and a relative humidity of $50 \pm 5\%$ prior to testing.
<b>Form in which the specimens were tested</b>	Assembly
<b>Specimen mounting</b>	Each specimen was placed over 25mm thick by 20mm wide calcium silicate based spacers positioned around its perimeter and mounted onto a backing board so that a 25mm enclosed air gap was provided between the unexposed face of the specimen and the backing board.
<b>Exposed face</b>	One of two identical faces of the specimens was exposed to the heating conditions of the test



## 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	Flame retardant grade, homogeneous rigid polyvinyl chloride sheet having two identical faces
Product reference	"VEKAPLAN K"
Detailed description / composition details	<ul style="list-style-type: none"> <li>- Polyvinyl chloride</li> <li>- Stabiliser</li> <li>- Filler</li> <li>- Lubricants</li> <li>- Processing aid</li> <li>- Pigments</li> </ul> <p><b>The sponsor of the test was unwilling to provide details relating to the percentage of each component utilised in the production of the product</b></p>
Name of manufacturer	VEKA AG
Density	Between 1.40 – 1.48g/m <sup>3</sup>
Thickness	4mm
Colour	"Beige"
Flame retardant details	<b>The sponsor of the test was unwilling to provide this information</b>
Brief description of manufacturing process	Extrusion



## Test Results


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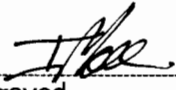
<b>Results and observations</b>	The test results for the individual specimens, together with observations made during the test and comments on any difficulties encountered during the test are given in Table 1.
<b>Classification</b>	<b>In accordance with the class definitions given in BS 476: Part 7: 1997, the specimens tested are classified as class 1Y.</b>
<b>Criteria for classification</b>	If the prefix 'D' or suffix 'R' or 'Y' is included in the classification, this indicates that the results should be treated with caution. An explanation of the reason for the prefix and suffixes is given in Appendix 1, together with the irradiance along the horizontal reference line of the specimen position during the test and the classification limits specified in the Standard.
<b>Applicability of test result</b>	<p>The test results relate only to the behaviour 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.</p> <p>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.</p> <p>Attention is drawn to Appendix 2 entitled "Effect of thermal characteristics on the performance of assemblies".</p>
<b>Validity</b>	<p>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.</p> <p>This report may only be reproduced in full. Extracts or abridgements shall not be published without permission of warringtonfire.</p>



## Signatories

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Responsible Officer T. Mort*


Approved I Moore* Laboratory Supervisor

\* For and on behalf of warringtonfire.

<i>Report Issued: 10<sup>th</sup> January 2006</i>
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