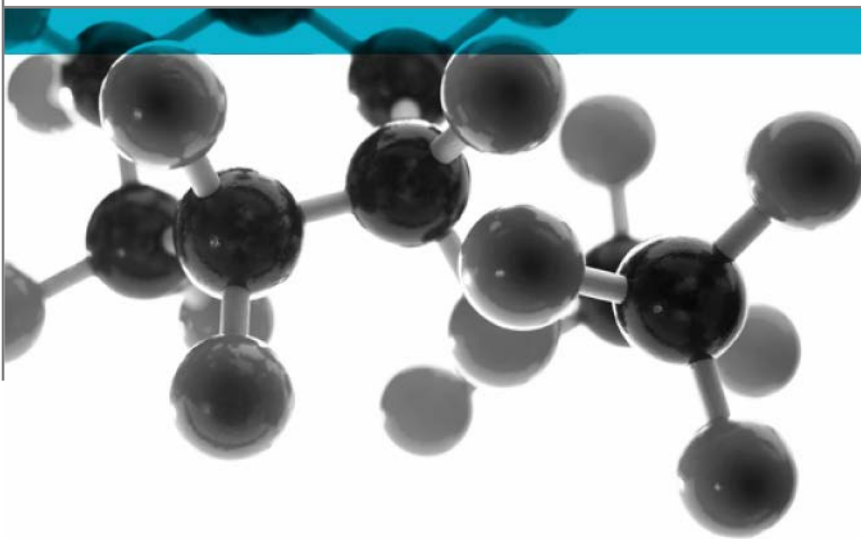


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# ISO 3795: 1989



## Determination Of Burning Behaviour Of Interior Materials For Motor Vehicles

A Report To: WSBL Ltd

Document Reference: 382511

Date: 12<sup>th</sup> June 2017

Issue: 1

Page 1

Testing  
Advising  
Assuring



## Executive Summary

**Objective** To determine the performance of the following product when tested in accordance with ISO 3795: 1989.

Generic Description	Product reference	Thickness	Weight per unit area
Mineral loaded TPO barrier	"Revac <sup>®</sup> ECO Auto N34"	1.4mm	3.4kg/m <sup>2</sup>
<b>Please see page 5 of this test report for the full description of the product tested</b>			


**Test Sponsor** WSBL Ltd, Durbar Mill, Hereford Road, Blackburn, Lancashire, BB1 3JU

**Test Results:**

Specimen	Burn rate
1	14.19 mm/min
2	5.77 mm/min
3	13.24 mm/min
4	25.40 mm/min
5	19.52 mm/min


**Date of Test** 19<sup>th</sup> April 2017

## Signatories



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Responsible Officer  
C. Jacques \*  
Technical Officer



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Authorised  
T. Mort \*  
Senior Technical Officer

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

Report Issued: 12<sup>th</sup> June 2017

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## Test Details

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<b>Purpose of test</b>	To determine the flammability of the material when it is tested in accordance with ISO 3795:1989 "Determination of Burning Behaviour of Interior Materials for Motor Vehicles, and Tractors and Machinery for Agriculture and Forestry".
<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 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.
<b>Instruction to test</b>	The test was conducted on the 19 <sup>th</sup> April 2017 at the request of WSBL Ltd, the sponsor of the test.
<b>Provision of test specimens</b>	The specimens were supplied by the sponsor of the test. <b>Exova Warringtonfire</b> was not involved in any selection or sampling procedure.
<b>Conditioning of specimens</b>	<p>The specimens were received on the 12<sup>th</sup> April 2017.</p> <p>Prior to the test the specimens were conditioned for at least 24 hours in an atmosphere having a temperature of <math>23 \pm 2^{\circ}\text{C}</math> and a relative humidity of <math>50 \pm 5\%</math>.</p>
<b>Test procedure</b>	Five specimens, each measuring 100 mm wide by 356 mm long, were tested with the smooth surface downwards to the test flame, in accordance with the test procedure specified in the Standard, the gas supplied to the bunsen burner being natural gas.
<b>Specimen orientation</b>	A total of five specimens were tested. Initial tests were carried out on one specimen in the production direction and one specimen in a direction perpendicular to that direction to establish the worse case condition. The results of these tests indicated that the worse case was with the specimens in the direction of production and these test results have been reported.

## 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	Mineral loaded TPO barrier
Generic type	Thermoplastic olefin (TPO)
Product reference	"Revac <sup>®</sup> ECO Auto N34"
Detailed description	<b>See Note 1 Below</b>
Name of manufacturer	WSBL LTD
Thickness	1.4mm (stated by sponsor) 1.87mm (determined by <b>Exova Warringtonfire</b> )
Weight per unit area	3.4kg/m <sup>2</sup> (stated by sponsor) 3.39kg/m <sup>2</sup> (determined by <b>Exova Warringtonfire</b> )
Colour reference	"Grey"
Flame retardant details	<b>See Note 2 Below</b>
Brief description of manufacturing process	Internal mixer – calender

**Note 1: The sponsor was unwilling 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 product.**

## Test Results

### Results of test

The burn rate was calculated using the formula:

$$B = 60 s/t$$

where B = Burning rate in mm per minutes  
 s = Burnt distance in mm, and  
 t = Time in seconds to burn distance s mm

Specimen No.	Time for flame to reach the first measuring point (seconds)	Time for flame to reach the final measuring point (seconds)	Burning time, <i>t</i> (seconds)	Distance burnt, <i>s</i> (mm)	Burning Rate (mm/min)
1 ↑	108	256	148	35	14.19
2 →	95	199	104	10	5.77
3 ↑	87	223	136	30	13.24
4 ↑	119	719	600	254	25.40
5 ↑	100	515	415	135	19.52

### Applicability of test results

The test results relate only to the behaviour of the specimens under the particular conditions of this test, they should not be used to infer the fire hazards of the material in other forms or under other fire conditions.

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.

### 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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## Revision History

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

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