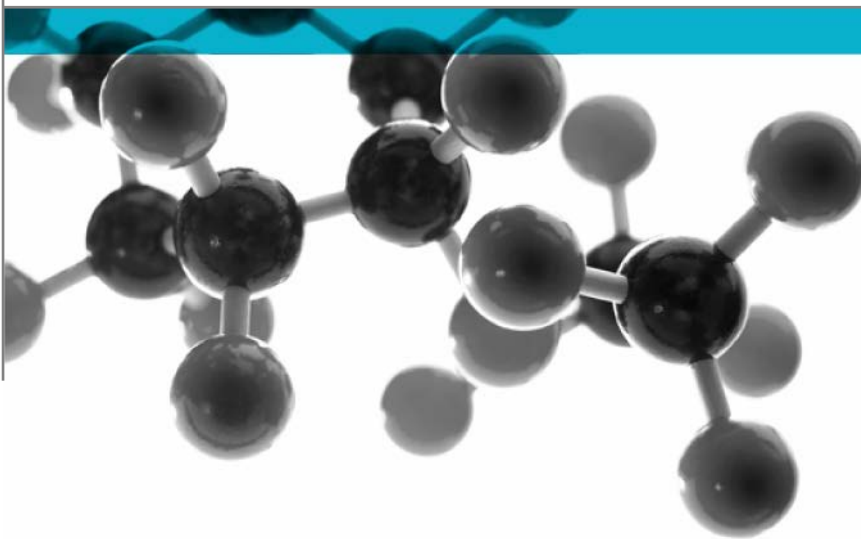


Exova Warringtonfire  
Holmesfield Road  
Warrington  
WA1 2DS  
United Kingdom

T : +44 (0) 1925 655116  
F : +44 (0) 1925 655419  
E : warrington@exova.com  
W: www.exova.com



# UN Regulation No. 118 Annex 8



## Test To Determine The Vertical Burning Rate Of Materials

A Report To: Camira Transport Fabrics Limited

Document Reference: 353348

Date: 29<sup>th</sup> June 2015

Issue: 1

Page 1

Testing  
Advising  
Assuring



## Executive Summary

**Objective** To determine the performance of the following product when tested in accordance with UN Regulation No. 118 Annex 8.


Generic Description	Product reference	Thickness	Weight per unit area
Polyester woven fabric	"Lucia CS Blizzard"	0.9mm	265g/m <sup>2</sup>
<b>Please see page 5 of this test report for the full description of the product tested</b>			


**Test Sponsor** Camira Transport Fabrics Limited, The Watermill, Wheatley Park, Mirfield, West Yorkshire, WF14 8HE

**Test Results:** **When tested in accordance with UN Regulation No. 118 Annex 6, the product submitted for test did not produce a vertical burning rate of more than 100mm/minute and therefore, in accordance with Section 6.2.3 of the standard, the test results are deemed to be satisfactory.**

**Date of Test** 16<sup>th</sup> June 2015

## 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: 29<sup>th</sup> June 2015

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## Test Details

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<b>Purpose of test</b>	<p>To determine the flammability of the material when it is tested in accordance with UN Regulation No. 118 Annex 8, a test to determine the vertical burning rate of materials.</p> <p>The test was performed in accordance with the test procedure specified in UN Regulation No. 118 Annex 8 and this test report should be read in conjunction with that Standard.</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 16<sup>th</sup> June 2015 at the request of Camira Transport Fabrics Limited, the sponsor of the test.</p>
<b>Provision of test specimens</b>	<p>The specimens were supplied by the sponsor of the test. <b>Exova Warringtonfire</b> was not involved in any selection or sampling procedure.</p>
<b>Conditioning of specimens</b>	<p>The specimens were received on the 12<sup>th</sup> June 2015.</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>	<p>Eight specimens, each measuring 174mm wide by 565 mm long, were tested with the decorative edge towards the test flame, in accordance with the test procedure specified in the Standard, the gas supplied to the bunsen burner being propane.</p>
<b>Specimen orientation</b>	<p>Specimens were tested in both the production direction and at <math>90^{\circ}</math> to this direction and the results have been reported.</p>

## 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.

Generic type	Polyester woven fabric
Product reference	"Lucia CS Blizzard"
Name of manufacturer	Camira Fabrics Ltd
Thickness	0.9mm (stated by sponsor) 0.55mm (determined by <b>Exova Warringtonfire</b> )
Weight per unit area	265g/m <sup>2</sup> (stated by sponsor) 266.2g/m <sup>2</sup> (determined by <b>Exova Warringtonfire</b> )
Colour reference	"Blizzard" (stated by sponsor) "Dark Grey" (observed by <b>Exova Warringtonfire</b> )
Pattern reference	"Plain"
Type of weave	Crepe Weave
Trade name of flame retardant	<b>See Note 1 Below</b>
Generic type of flame retardant	Phosphorous
Amount of flame retardant	<b>See Note 1 Below</b>
Brief description of manufacturing process	Yarn supplied by Trevira, internally woven & dyed/finished by a commission dyer/finisher

**Note 1: The sponsor of the test was unwilling to provide this information.**

## Test Results

### Results of test

The following shall be observed

The durations of combustion:  $t_1$ ,  $t_2$  and  $t_3$  in seconds,  
The corresponding burnt distances:  $d_1$ ,  $d_2$  and  $d_3$  in mm.

The burning rate  $V_1$  and the rates  $V_2$  and  $V_3$ , if applicable, shall be calculated (for each sample if the flame reaches at least one of the first marker threads) as follows:

$$V_i = 60 d_i/t_i \text{ (mm/min)}$$

The highest burning rate of  $V_1$ ,  $V_2$  and  $V_3$  shall be taken into account.

Specimen No.	Direction (↑/→)	Time for flame to reach 1 <sup>st</sup> marker thread (seconds) T1	Time for flame to reach 2 <sup>nd</sup> marker thread (seconds) T2	Time for flame to reach 3rd marker thread (seconds) T3	Burn Distance for 1 <sup>st</sup> Marker thread D1	Burn Distance for 2nd Marker thread D2	Burn Distance for 3 <sup>rd</sup> Marker thread D3	Burn rate to 1 <sup>st</sup> marker thread (mm/min) V1	Burn rate 2 <sup>nd</sup> marker thread (mm/min) V2	Burn rate 3 <sup>rd</sup> marker thread (mm/min) V3
1	↑	DNR	DNR	DNR	DNR	DNR	DNR	0.00	0.00	0.00
2	↑	DNR	DNR	DNR	DNR	DNR	DNR	0.00	0.00	0.00
3	↑	DNR	DNR	DNR	DNR	DNR	DNR	0.00	0.00	0.00
4	↑	DNR	DNR	DNR	DNR	DNR	DNR	0.00	0.00	0.00

Specimen No.	Direction (↑/→)	Time for flame to reach 1 <sup>st</sup> marker thread (seconds) T1	Time for flame to reach 2 <sup>nd</sup> marker thread (seconds) T2	Time for flame to reach 3rd marker thread (seconds) T3	Burn Distance for 1 <sup>st</sup> Marker thread D1	Burn Distance for 2nd Marker thread D2	Burn Distance for 3 <sup>rd</sup> Marker thread D3	Burn rate to 1 <sup>st</sup> marker thread (mm/min) V1	Burn rate 2 <sup>nd</sup> marker thread (mm/min) V2	Burn rate 3 <sup>rd</sup> marker thread (mm/min) V3
1	→	DNR	DNR	DNR	DNR	DNR	DNR	0.00	0.00	0.00
2	→	DNR	DNR	DNR	DNR	DNR	DNR	0.00	0.00	0.00
3	→	DNR	DNR	DNR	DNR	DNR	DNR	0.00	0.00	0.00
4	→	DNR	DNR	DNR	DNR	DNR	DNR	0.00	0.00	0.00

### Conclusion

When tested in accordance with UN Regulation No. 118 Annex 8, the product submitted for test did not produce a vertical burning rate of more than 100mm/minute and therefore, in accordance with Section 6.2.3 of the standard, the test results are deemed to be satisfactory.

**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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