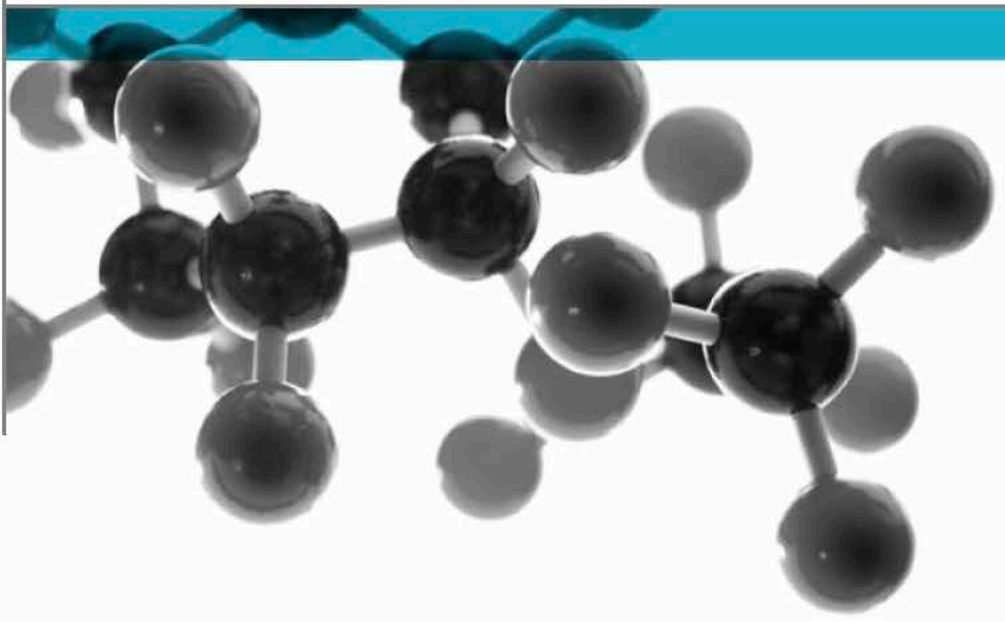


UN Regulation No. 118 Annex 6



Test To Determine The Horizontal Burning Rate Of Materials

A Report To: Camira Transport Fabrics Ltd

Document Reference: 418018

Date: 4th September 2019

Issue: 1

Page 1



Executive Summary

Objective To determine the performance of the following product when tested in accordance with UN Regulation No. 118 Annex 6.

Generic Description	Product reference	Thickness	Weight per unit area
Polypropylene fabric	"Super Trim"	3.58mm*	500g/m ²
*determined by Warringtonfire			
Please see page 5 of this test report for the full description of the product tested			

Test Sponsor Camira Transport Fabrics Ltd., Meltham Mills, Meltham Mills Road, Meltham, West Yorkshire, HD9 4AY

Test Results: **When tested in accordance with UN Regulation No. 118 Annex 6, the product submitted for test did not produce a horizontal burning rate of more than 100mm/minute and therefore, in accordance with Section 6.2.1 of the standard, the test results are deemed to be satisfactory.**

Date of Test 29th August 2019

Signatories



Responsible Officer
C. Jacques *
Senior Technical Officer



Authorised
T. Mort *
Senior Technical Officer

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

Report Issued: 4th September 2019

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Document No.: 418018
Author: C Jacques
Client: Camira Transport Fabrics Ltd

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Issue Date: 4th September 2019
Issue No.: 1



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Test Details

Purpose of test	<p>To determine the flammability of the material when it is tested in accordance with UN Regulation No. 118 Annex 6, a test to determine the horizontal burning rate of materials.</p> <p>The test was performed in accordance with the test procedure specified in UN Regulation No. 118 Annex 6 and this test report should be read in conjunction with that Standard.</p>
Fire test study group/EGOLF	<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>
Instruction to test	<p>The test was conducted on the 29th August 2019 at the request of Camira Transport Fabrics Ltd, the sponsor of the test.</p>
Provision of test specimens	<p>The specimens were supplied by the sponsor of the test. Warringtonfire was not involved in any selection or sampling procedure.</p>
Conditioning of specimens	<p>The specimens were received on the 19th August 2019.</p> <p>Prior to the test the specimens were conditioned for at least 24 hours in an atmosphere having a temperature of $23 \pm 2^{\circ}\text{C}$ and a relative humidity of $50 \pm 5\%$.</p>
Test procedure	<p>Five specimens, each measuring 100 mm wide by 356 mm long, were tested with the unmarked 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.</p>
Specimen orientation	<p>The product did not have a directional production quality. The test was therefore conducted in a single direction as supplied by the sponsor and the results of these tests have been reported.</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.

Generic type	Polypropylene
Trade name	"Super Trim"
Name of manufacturer	Camira Transport Fabrics Ltd
Composition details	100% Polypropylene
Weight per unit area	500g/m ² (stated by sponsor) 603.49g/m ² (determined by Warringtonfire)
Thickness	3.58mm (determined by Warringtonfire)
Colour reference	"Smoke SJT08" "Grey" (observed by Warringtonfire)
Flame retardant details	See Note 1 below
Brief description of manufacturing process	Non woven needle punch

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

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, t (seconds)	Distance burnt, s (mm)	Burning Rate (mm/min)
1	47	276	230	254	66.26
2	49	227	178	254	85.62
3	38	226	188	254	81.06
4	48	215	263	254	57.95
5	42	230	188	254	81.06

Conclusion

When tested in accordance with UN Regulation No. 118 Annex 6, the product submitted for test did not produce a horizontal burning rate of more than 100mm/minute and therefore, in accordance with Section 6.2.1 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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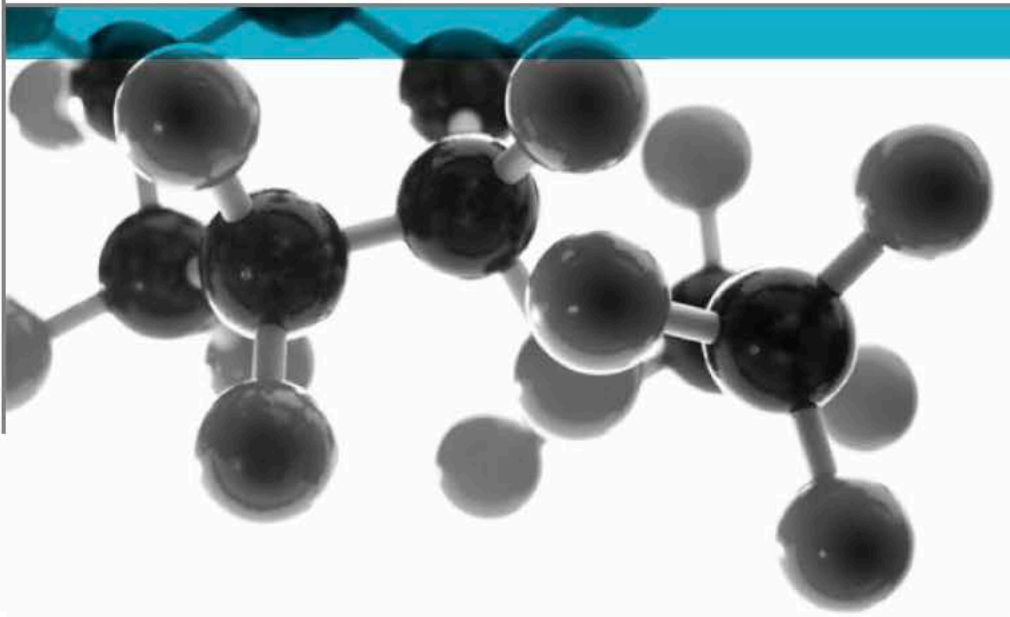
0249

Revision History

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Reason for Revision:	

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

UN Regulation No. 118 Annex 7



Test To Determine The Melting Behaviour Of Materials

A Report To: Camira Transport Fabrics Ltd

Document Reference: 418022

Date: 4th September 2019

Issue: 1

Page 1



0249

Executive Summary

Objective To determine the performance of the following product when tested in accordance with UN Regulation No. 118 Annex 7.


Generic Description	Product reference	Thickness	Weight per unit area
Polypropylene fabric	"Super Trim"	4.01mm*	500g/m ²
*determined by Warringtonfire			
Please see page 5 of this test report for the full description of the product tested			

Test Sponsor Camira Transport Fabrics Ltd., Meltham Mills, Meltham Mills Road, Meltham, West Yorkshire, HD9 4AY

Test Results: **When tested in accordance with UN Regulation No. 118 Annex 7, the product submitted for test did not produce droplets which ignited the cotton wool and therefore, in accordance with Section 6.2.2 of the standard, the test results are deemed to be satisfactory.**

Date of Test 27th August 2019

Signatories



Responsible Officer
C. Jacques *
Senior Technical Officer



Authorised
T. Mort *
Senior Technical Officer

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

Report Issued: 4th September 2019

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Author: C Jacques

Client: Camira Transport Fabrics Ltd

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Issue Date: 4th September 2019

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Test Details

Purpose of test	<p>To determine the performance of the material when it is tested in accordance with UN Regulation No. 118 Annex 7, a test to determine the melting behaviour of materials.</p> <p>The test was performed in accordance with the test procedure specified in UN Regulation No. 118 Annex 7 and this test report should be read in conjunction with that Standard.</p>
Fire test study group/EGOLF	<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>
Instruction to test	<p>The test was conducted on the 27th August 2019 at the request of Camira Transport Fabrics Ltd, the sponsor of the test.</p>
Provision of test specimens	<p>The specimens were supplied by the sponsor of the test. Warringtonfire was not involved in any selection or sampling procedure.</p>
Conditioning of specimens	<p>The specimens were received on the 19th August 2019.</p> <p>Prior to the test the specimens were conditioned for at least 24 hours in an atmosphere having a temperature of $23 \pm 2^{\circ}\text{C}$ and a relative humidity of $50 \pm 5\%$.</p>
Test procedure	<p>The specimens were placed in a horizontal position and exposed to an electric radiator. A receptacle containing cotton wool was positioned under the specimen to collect droplets. Cotton wool was put in the receptacle in order to verify if any drops were flaming.</p>
Specimen orientation	<p>Both faces of the specimens were exposed to the radiant heat of the test when the specimens were mounted in the test position.</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.

Generic type	Polypropylene
Trade name	"Super Trim"
Name of manufacturer	Camira Transport Fabrics Ltd
Composition details	100% Polypropylene
Weight per unit area	500g/m ² (stated by sponsor) 522.54g/m ² (determined by Warringtonfire)
Thickness	4.01mm (determined by Warringtonfire)
Colour reference	"Black SJY17"
Flame retardant details	See Note 1 below
Brief description of manufacturing process	Non woven needle punch

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

Test Results

Test face	Front			
	Specimen No.			
	1	2	3	4
Weight (g)	2.56	2.58	2.55	2.39
Flaming droplets produced?	No	No	No	No
Non-flaming droplets produced?	Yes	Yes	No	No
Combustion of product				
Time to ignition (seconds)	88	241	Did not ignite	Did not ignite
Duration of flaming (seconds)	240	181	Did not ignite	Did not ignite
Length of flame (mm)	20	20	Did not ignite	Did not ignite
Ignition of cotton wool?	No	No	No	No
Comments:				
In the case of each specimen tested, melted residue remained on the gauze following the test.				

Test face	Back			
	Specimen No.			
	1	2	3	4
Weight (g)	2.35	2.38	2.50	2.48
Flaming droplets produced?	No	No	No	No
Non-flaming droplets produced?	Yes	Yes	Yes	Yes
Combustion of product				
Time to ignition (seconds)	120	80	120	285
Duration of flaming (seconds)	200	220	255	180
Length of flame (mm)	20	20	20	30
Ignition of cotton wool?	No	No	No	No
Comments:				
In the case of each specimen tested, melted residue remained on the gauze following the test.				

Conclusion

When tested in accordance with UN Regulation No. 118 Annex 7, the product submitted for test did not produce droplets which ignited the cotton wool and therefore, in accordance with Section 6.2.2 of the standard, the test results are deemed to be satisfactory.

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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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