



Report nr. **1502219-002**

TEST	M.U.	RESULTS
------	------	---------

25145 DIMENSIONAL CHANGE TO DRYCLEANING WITH PERCHLOROETHYLENE

Method: UNI EN ISO 3759 :2011, UNI EN ISO 3175-1:2010, UNI EN ISO 3175-2 :2010, UNI EN ISO 5077 :2008

Instrument: Dry cleaning machine with Perchloroethylene - PLANET 20 - Renzacci

Solvent used: PERCHLOROETHYLENE

Dry cleaning procedure: Sensible

Finishing: Type B - pressing by ironing with steam (110°C)

No. Of dry cleaning and finishing treatments: 01

No. Of specimens for each tests: 01

Dimensional changes after dry-cleaning (without finishing)

DIMENSIONAL CHANGE - WIDTH direction	%	-0,4
--------------------------------------	---	------

DIMENSIONAL CHANGE - LENGHT direction	%	-0,9
---------------------------------------	---	------

Dimensional changes after dry-cleaning and finishing

DIMENSIONAL CHANGE - WIDTH direction	%	+1,0
--------------------------------------	---	------

DIMENSIONAL CHANGE - LENGHT direction	%	-1,4
---------------------------------------	---	------

15066 UPHOLSTERY FURNITURE: assessment of the ignitability by SMOULDERING CIGARETTE

Method: BS 5852:2006

Instrument: Test rig

Test executed on:

upholstery composites (Clause 11)

Sample pretreatment:

sample wasn't submitted to any pretreatment because it wasn't chemically treated with flame retardant

Ignition source applied:

source 0 (SMOULDERING CIGARETTE)

Materials of test assembly:

Upholstery filling: fire retardant polyurethane foam with a density of 30 kg/m³

Inner cover: -

Outer cover: SEE ARTICLE DESCRIPTION

TEST RESULT:

SAMPLE PASSES THE TEST - NON IGNITION

Note: to assess the ignitability of this sample, the test has been carried out using a fire-retardant polyurethane foam with a density of 30 kg/m³ as filling of the upholstered seating.

The test result could be different using another type of filling material.

Annex n.:

1F

The test measures only the ignitability of a combination of materials used in upholstered seating and not the ignitability of a particular finished item of furniture incorporating these materials. They give an indication of, but cannot guarantee, the ignition behavior of the finished item of furniture.

Details of the results can be seen in the annex of this test report.



Report nr. **1502219-002**

TEST

M.U.

RESULTS

15076 UPHOLSTERY FURNITURE: assessment of the ignitability by MATCH FLAME EQUIVALENT

Method: BS 5852:2006

Instrument: Test rig

Test executed on:

upholstery composites (Clause 11)

Sample pretreatment:

sample wasn't submitted to any pretreatment because it wasn't chemically treated with flame retardant

Ignition source applied:

source 1 (MATCH FLAME EQUIVALENT)

Materials of test assembly:

Upholstery filling: fire retardant polyurethane foam with a density of 30 kg/m³

Inner cover: -

Outer cover: SEE ARTICLE DESCRIPTION

TEST RESULT:

SAMPLE PASSES THE TEST - NON IGNITION

Note: to assess the ignitability of this sample, the test has been carried out using a fire-retardant polyurethane foam with a density of 30 kg/m³ as filling of the upholstered seating. The test result could be different using another type of filling material.

Annex n.:

2F

The test measures only the ignitability of a combination of materials used in upholstered seating and not the ignitability of a particular finished item of furniture incorporating these materials. They give an indication of, but cannot guarantee, the ignition behavior of the finished item of furniture.

Details of the results can be seen in the annex of this test report.

15566 UPHOLSTERY FURNITURE: assessment of the ignitability by SMOULDERING CIGARETTE

Method: UNI EN 1021-1:2014

Instrument: Small Test Rig for Flammability test

Sample pretreatment:

sample wasn't submitted to any pretreatment because it wasn't chemically treated with flame retardant

Ignition source applied:

source 0 (SMOULDERING CIGARETTE)

Materials of test assembly:

Upholstery filling: fire retardant polyurethane foam with a density of 30 kg/m³

Inner cover: -

Outer cover: SEE ARTICLE DESCRIPTION

TEST RESULT:

SAMPLE PASSES THE TEST - NON IGNITION

Note: to assess the ignitability of this sample, the test has been carried out using a fire-retardant polyurethane foam with a density of 30 kg/m³ as filling of the upholstered seating. The test result could be different using another type of filling material.

Annex n.:

3F



Report nr. **1502219-002**

TEST	M.U.	RESULTS
------	------	---------

15576 UPHOLSTERY FURNITURE: assessment of the ignitability by MATCH FLAME EQUIVALENT

Method: UNI EN 1021-2:2014

Instrument: Small Test Rig and burner for Flammability test

Sample pretreatment:

sample wasn't submitted to any pretreatment because it wasn't chemically treated with flame retardant

Ignition source applied:

source 1 (MATCH FLAME EQUIVALENT)

Materials of test assembly:

Upholstery filling: fire retardant polyurethane foam with a density of 30 kg/m³

Inner cover: -

Outer cover: SEE ARTICLE DESCRIPTION

TEST RESULT:

SAMPLE PASSES THE TEST - NON IGNITION

Note: to assess the ignitability of this sample, the test has been carried out using a fire-retardant polyurethane foam with a density of 30 kg/m³ as filling of the upholstered seating. The test result could be different using another type of filling material.

Annex n.:

4F

15066 UPHOLSTERY FURNITURE: assessment of the ignitability by SMOULDERING CIGARETTE

Method: TB 117: 2013

Instrument: Mock-up Tester

Test executed on:

COVER FABRIC

Ignition source applied:

source 0 (SMOULDERING CIGARETTE)

Materials of test assembly:

Upholstery filling: NON fire retardant polyurethane foam with a density of 28 kg/m³

Inner cover: -

Outer cover: SEE ARTICLE DESCRIPTION

TEST RESULT:

SAMPLE PASSES THE TEST

Note: to assess the ignitability of this sample, the test has been carried out using a NON fire-retardant polyurethane foam with a density of 28 kg/m³ as filling of the upholstered seating. The test result could be different using another type of filling material.

Annex n.:

5F

Details of the test results related to each specimen can be seen in the annex of this test report.



Annex n. 1F to test report n. 1502219-002

DETAILS OF TEST RESULTS

Test executed according to BS 5852:2006 – Clause 11 (composites):
Method of test for assessment of the ignitability of upholstered seating by smouldering and flaming ignition sources.
Ignition source type 0: CIGARETTE

Article description: **MUNBAY**
 Declared composition: **100% Polyester Trevira**
 Materials of test assembly:
 Upholstery filling: **fire-retardant polyurethane foam with a density of 30 kg/m³**
 Inner cover: -
 Outer cover: **see article description**

Conditioning of test specimen and ignition source: **23±2°C, 50±5% r.h.**
 Testing temperature and r.h.: **19 °C, 50 % r.h.**
 Sample pre-treatment: **sample wasn't subjected to any pretreatment**
 Date of test: **25.03.2015**

ignition source		1.st cigarette	2.nd cigarette
duration of ignition source (min)		28	28
duration flame (min)		0	0
duration smoke (min)		28	28
(*) extent of damage of horizontal component	length (mm)	77	69
	width (mm)	12	13
	depth (mm)	5	3
(*) extent of damage of vertical component	height (mm)	11	12
	depth (mm)	2	2
TEST RESULT	Ignition/ Non Ignition	Non Ignition	Non Ignition

(*) = total extent of sample's damage without subtracting the cigarette dimensions

TEST RESULT: SAMPLE PASSES THE TEST - NON IGNITION

*The above test result relate only to the ignitability of the combination of upholstery composites (Clause 11) under the particular conditions of test.
 They are not intended as a means of assessing the full potential fire hazard of the materials or products in use.*



Annex n. 2F to test report n. 1502219-002

DETAILS OF TEST RESULTS

**Test executed according to BS 5852:2006 – Clause 11 (composites):
 Method of test for assessment of the ignitability of upholstered seating by smouldering and flaming
 ignition sources.
 Ignition source type 1: MATCH FLAME EQUIVALENT**

Article description: **MUNBAY**
 Declared composition: **100% Poliestere Trevira**
 Materials of test assembly:
 Upholstery filling: **fire-retardant polyurethane foam with a density of 30 kg/m³**
 Inner cover: -
 Outer cover: **see article description**
 Conditioning of test specimen: **23±2°C, 50±5% r.h.**
 Testing temperature and r.h.: **19 °C, 50 % r.h.**
 Sample pre-treatment: **sample wasn't subjected to any pretreatment**
 Date of test: **25.03.2015**

ignition source		1.st test	2.nd test
duration flames (s)		1	1
duration smoke (s)		16	15
extent of damage of horizontal component	Length (mm)	25	24
	Width (mm)	15	17
	Depth (mm)	3	3
extent of damage of vertical component	Width (mm)	25	26
	Depth (mm)	9	8
TEST RESULT	Ignition/ Non Ignition	Non Ignition	Non Ignition

TEST RESULT: SAMPLE PASSES THE TEST - NON IGNITION

*The above test result relate only to the ignitability of the combination of upholstery composites (Clause 11) under the particular conditions of test.
 They are not intended as a means of assessing the full potential fire hazard of the materials or products in use.*



Annex n. 3F to test report n. 1502219-002

DETAILS OF TEST RESULTS

**Test executed according to UNI EN 1021-1:2014 (EN 1021-1:2014)
 Furniture - Assessment of the ignitability of upholstered furniture
 Part 1: Ignition source: smouldering cigarette**

Article description: **MUNBAY**

Declared composition: **100% Polyester Trevira**

Materials of test assembly:

Upholstery filling: **fire-retardant polyurethane foam with a density of 30 kg/m³**

Inner cover: -

Outer cover: **see article description**

Conditioning of test specimen: **23 ± 2 °C, 50 ± 5 % r.h.**

Testing temperature and r.h.: **19 °C, 50 % r.h.**

Sample pre-treatment: **sample wasn't submitted to any pretreatment because it wasn't chemically treated with flame retardant**

Date of test: **25.03.2015**

SMOULDERING CRITERIA:	first cigarette	second cigarette	third cigarette	Comments
Smouldering criteria:				
Unsafe escalating combustion	NO	NO	-	-
Test assembly consumed	NO	NO	-	-
Smoulders to extremities	NO	NO	-	-
Smoulders through thickness	NO	NO	-	-
Smoulders more than 1 h	NO	NO	-	Time elapsed between placing the cigarette and extinguishing 1 st cigarette: 28 min 2 nd cigarette: 28 min
In final examination, presence of active smouldering	NO	NO	-	-
Flaming criteria:				
Evidence of flames	NO	NO	-	-

YES = criteria observed

NO = criteria not observed

TEST RESULT: SAMPLE PASSES THE TEST - NON IGNITION

The above test results relate only to the ignitability of the combination of materials under the particular conditions of test.

They are not intended as a means of assessing the full potential fire hazard of the material in use.

The probability that the observation criteria mentioned represent the true is equal to 95%.

The expanded uncertainty is calculated by multiplying the combined standard uncertainty for a coverage factor K = 2, which for a normal distribution leads to a confidence level of approximately 95%.



Annex n. 4F to test report n. 1502219-002

DETAILS OF TEST RESULTS

**Test executed according to UNI EN 1021-2:2006 (EN 1021-1:2006)
 Furniture - Assessment of the ignitability of upholstered furniture
 Part 2: Ignition source: match flame equivalent**

Article description: **MUNBAY**
 Declared composition: **100% Polyester Trevira**
 Materials of test assembly:

Upholstery filling: **fire-retardant polyurethane foam with a density of 30 kg/m³**
 Inner cover: -
 Outer cover: **see article description**

Conditioning of test specimen: **23 ± 2 °C, 50 ± 5 % r.h.**
 Testing temperature and r.h.: **19°C, 50% r.h.**

Sample pre-treatment: **sample wasn't submitted to any pretreatment because it wasn't chemically treated with flame retardant**

Date of test: **25.03.2015**

SMOULDERING CRITERIA:	1st test	2nd test	3rd test	Comments
Smouldering criteria:				
Unsafe escalating combustion	NO	NO	NO	-
Test assembly consumed	NO	NO	NO	-
Smoulders to extremities	NO	NO	NO	-
Smoulders through thickness	NO	NO	NO	-
Smoulders more than 1 hour	NO	NO	NO	Time smouldering: 1st test: 16 s 2nd test: 15 s 3rd test: 22 s
In final examination, presence of active smouldering	NO	NO	NO	-
Flaming criteria:				
Unsafe escalating combustion	NO	NO	NO	-
Test assembly consumed	NO	NO	NO	-
Flames to extremities	NO	NO	NO	-
Flames through thickness	NO	NO	NO	-
Flames more than 120 s	NO	NO	NO	Time flaming: 1st test: 1 s 2nd test: 1 s 3rd test: 0 s

YES = criteria observed
NO = criteria not observed

TEST RESULT: SAMPLE PASSES THE TEST - NON IGNITION

The above test results relate only to the ignitability of the combination of materials under the particular conditions of test. They are not intended as a means of assessing the full potential fire hazard of the material in use.

The probability that the observation criteria mentioned represent the true is equal to 95%. The expanded uncertainty is calculated by multiplying the combined standard uncertainty for a coverage factor K = 2, which for a normal distribution leads to a confidence level of approximately 95%.



Annex n. 5F to test report n. 1502219-002

DETAILS OF TEST RESULTS

**Test executed according to TB 117:2013
 Requirements, Test procedure and Apparatus for testing the Smolder Resistance of
 Materials used in Upholstered Furniture**

Sample description: **MUNBAY**

Declared composition: **100% polyester Trevira**

Conditioning of test specimen and ignition source: **24 h at 21 ± 3 °C, <55% r.h.**

Testing temperature and r.h.: **19°C, 45% r.h.**

Filling specification: **NON FIRE-RETARDANT polyurethane foam with a density of 28 kg/m³**

Date of test: **24.03.2015**

Type of fabric: COVER FABRIC

Specimen number	1	2	3
Total combustion of the cigarette (YES / NO)	YES	YES	YES
Time of progressive smouldering from placement of the source (min)	36	37	34
Combustion of the sample (YES / NO)	YES	YES	YES
Size of the damage in the vertical direction (mm)	18	19	18
Combustion observed in polyurethane backing (YES / NO)	YES	YES	YES
CIGARETTE TEST RESULT (PASS/FAIL)	PASS	PASS	PASS

Cover Fabric Classification (ref. TB 117:2013)

A single mock-up test specimen fails to meet the requirements if any of the following criteria occurs:

- a) The mock-up test specimen continues to smolder after the 45 minute test duration;
- b) A vertical char length of more than 45 mm develops on the cover fabric
- c) The mock-up test specimen transitions to open flaming.

2. The cover fabric passes the test if three initial mock-up specimens pass the test, i.e., the cigarettes burn their full length and the mock-ups are no longer smoldering.

3. If more than one initial specimen fails, the cover fabric fails the test.

4. If any one of the three initial specimens fails, repeat the test on additional three specimens.

5. If all three additional specimens pass the test, the cover fabric passes the test. If any one of the additional three specimens fails, the cover fabric fails the test.

The following test result relate only to the ignitability of the combination of materials under the particular conditions of test.

They are not intended as a means of assessing the full potential fire hazard of the material in use.