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TEST/INSPECTION REPORT

EUROLAB LABORATORY SERVICES

TÜRCERT TEKNİK KONTROL VE BELGELENDİRME A.Ş.

UNITED ACCREDITATION FOUNDATION UAF

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2021180617

Report No:	2021180617
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Sample Accepted on :	09.06.2021
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Sample ID : **ARTEMIS FR (FR COLLECTIONS)**

	TEST	METHOD	RESULT
*	**Annex 6 : Horizontal Burning Test**	**ECE R 118**	**PASS**
*	**Annex 7 : Melting Behavior Test**	**ECE R 118**	**PASS**
*	**Annex 8 : Vertical Burning Test**	**ECE R 118**	**PASS**

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Environment

The requirements and standards apply to equipment intended for use in

X	Residential (domestic) environment
X	Commercial and light-industrial environment
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X	Medical environment

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ECE R 118 : MOTOR VEHICLES - COMBUSTION BEHAVIOR OF MATERIALS USED IN THE INTERNAL CONSTRUCTION OF CERTAIN MOTOR VEHICLE CATEGORIES

HORIZONTAL BURNING RATE

Materials used for the upholstery of seats and their accessories, for interior lining, for thermal and sound insulation and for light fittings have to satisfy the requirements of this test. A minimum of five test specimens in the same way of the finished products have to be tested. The number of specimens doubles for anisotropic materials. The specimens dimensions are 356 mm × 100 mm × max. 13 mm. For specimens having a width > 60 mm their length may be reduced to 138 mm.

CONDITIONING			
Test	**Hours**	**Temperature**	**Relative Humidity**
Horizontal Burning Rate	24 ≤	23°C	50 %

The test specimen is marked at 38 mm and 292 mm from its leading edge and mounted in a U-shaped holder which is inserted horizontally into the combustion chamber. A 38 mm long Bunsen burner flame is applied to the lower edge of the test specimen for 15 seconds. The distance between the nozzle's upper edge and the specimen's lower edge is 19 mm.

The time required for the flame to pass the two measuring points or for it to extinguish after passing the first measuring point is recorded. In case the flame of the test specimen extinguishes before it reaches the second measuring point, the burnt distance up to the extinguishing point is recorded.

<u>The burning rate B is given by the formula:</u>

$$B = \frac{s}{t} \times 60$$

s - "burning distance (mm)"
t - "time (s)" to burn the distance

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MELTING BEHAVIOUR

Materials used for the interior lining of the roof and adjoining parts have to pass the drop test. A minimum of four test specimens, with the same specification as those used in practice, measuring 70 mm x 70 mm x max. 13 mm, are required.

CONDITIONING			
Test	**Hours**	**Temperature**	**Relative Humidity**
Melting Behaviour	24 ≤	23°C	50 %

The test specimen measuring 70 mm x 70 mm is placed horizontally on a grill 30 mm underneath a radiator. The ignition and dripping characteristics are observed during the test period of 10 minutes.

If the specimen ignites within the first 5 minutes of the test, the radiator is put aside after 3 seconds, until the flames extinguish. After the first 5 minutes or after the specimen's flames have extinguished the radiator is left in position, whether an ignition takes place or not, for the remaining period.

VERTICAL BURNING RATE

Materials for curtains, blinds and similar hanging materials have to satisfy the requirements of the test to determine the vertical burning rate of materials. The test is carried out with three specimens, measuring 560 mm x 170 mm.

CONDITIONING			
Test	**Hours**	**Temperature**	**Relative Humidity**
Vertical Burning Rate	24 ≤	23°C	50 %

The marker threads shall be attached horizontally in front of and behind the specimen at the locations shown. At each location, a loop of thread shall be mounted so that the two segments are spaced 1 mm and 5 mm from the front and rear face of the specimen. A burner flame, 40 mm in height, is applied to the edge of the specimen, in a distance of 20 mm and an angle of 30°, for 5 seconds. If it fails to ignite, the flame is applied for 15 seconds to another specimen. The time from application of the flame to the severance of the three marker threads is measured. The maximum of the resulting burning rates is used for calculation purposes.

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RESULTS

ARTEMIS FR (FR COLLECTIONS)

TEST	NECESSITY	OBSERVATION	RESULT
Test according to ECE R 118.02 Annex 6:	The specimen passes the test if, on the basis of the worst result, the horizontal burning rate does not exceed 100 mm/min or if the flame extinguishes before the last measuring point is reached.	Horizontal Burning Rate 23 mm/min	PASS
Test according to ECE R 118.02 Annex 7:	The specimen passes the test if any droplets generated fail to ignite the cotton wool 300 mm underneath the specimen during any of the test performances.	The material did not fall and the cotton wool did not ignite.	PASS
Test according to ECE R 118.02 Annex 8:	The specimen passes the test if, on the basis of the worst result, the vertical burning rate does not exceed 100 mm/min.	Vertical Burning Rate 14 mm/min	PASS

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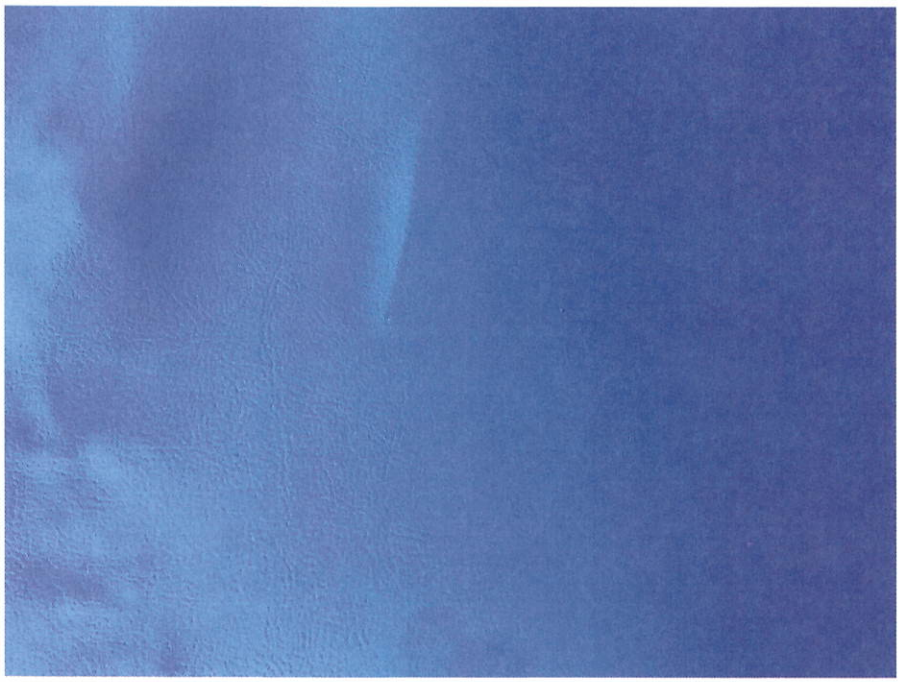
SAMPLE IMAGE



*** End Of Report ***

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Report Date:	18.06.2021
Total number of pages:	5 (Pg)

Sample ID: **ARTEMIS FR (FR COLLECTIONS)**

	TEST	METHOD	SPECIMEN
*	**IMO Resolution MSC FTP Code Annex 1:Part 8**	**IMO FTP CODE**	**ARTEMIS FR (FR COLLECTIONS)**

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IMO Resolution MSC FTP Code Annex 1:Part 8 – Test for Upholstered Furniture

Conditioning

Immediately prior to testing the samples was placed in indoor ambient conditions for 72 hours and then conditioned in a standard atmosphere of 23±2°C temperature and 50±5% relative humidity for at least 16 hours.

Procedure

The samples was tested in accordance with IMO FTP Code 2010 : Part 8 using ignition sources 0 and 1.
The sponsor sampled the material and the specimens were cut from the sample received to the dimensions set out in the standard.

Requirements

Ignition Source 0	No progressive smouldering or flaming within 1 hour of the placement of the cigarette
Ignition Source 1	All progressive smouldering and flaming to cease within 120 sec of removal of the burner tube

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TEST RESULT

Cigarette Test – Source 0		
Specimen No.	**1**	**2**
Extinction Time (smouldering) (min)	24	22
Time of cover split	DNS	DNS
Melting (Yes/No)	No	No
Dripping (Yes/No)	No	No
Charring (Yes/No)	Yes	Yes
Progressive Smouldering (Yes/No)	No	No
Pass/Fail	PASS	PASS

DNS= Material did not split

Propane Flame Test – Source 1		
Specimen No	**1**	**2**
Time of Ignition (s)	3	3
Extinction time of flames after removal of burner (s)	2	3
Time to Cover Split (s)	DNS	DNS
Melting (Yes/No)	No	No
Dripping (Yes/No)	No	No
Charring (Yes/No)	Yes	Yes
Progressive Smouldering (Yes/No)	No	No
Pass/Fail	PASS	PASS

DNS= Material did not split

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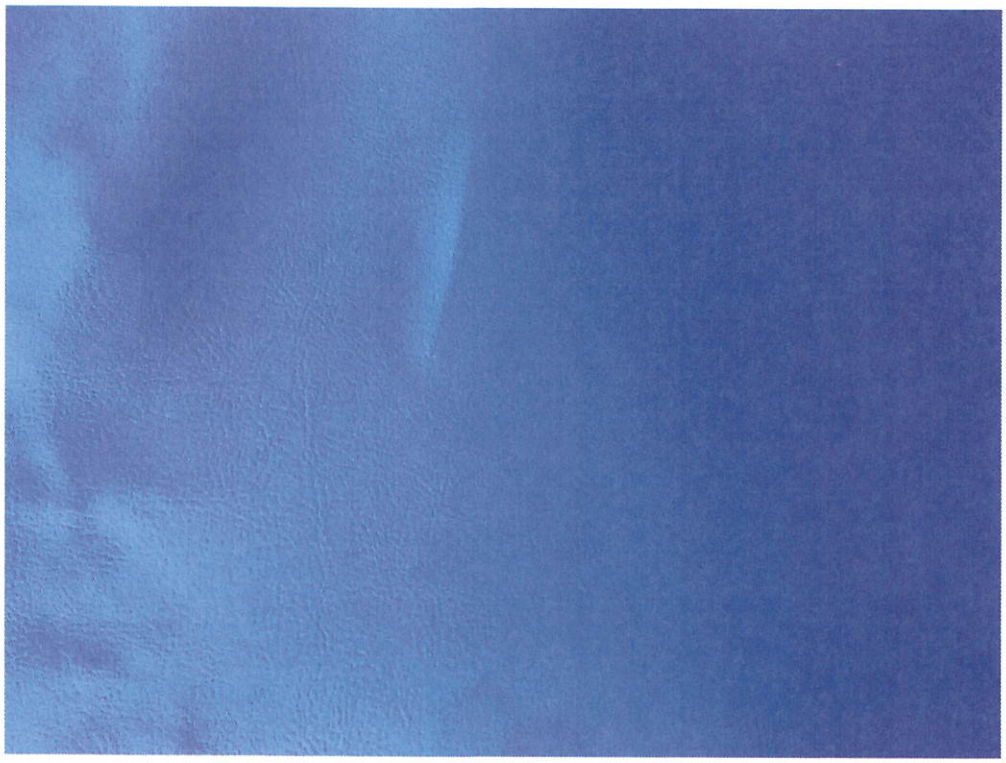
SAMPLE IMAGES



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2021101127

Overall Rating:	PASS
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Sample Accepted on:	23.09.2021
Report Date:	11.10.2021
Total number of pages:	5 (Pg)
Sample ID:	**HALIKARNAS FR (FR COLLECTIONS)**

	TEST	METHOD	SPECIMEN	RESULT
*	**Specification for resistance to ignition of upholstered furniture for non-domestic seating by testing composites**	**BS 7176**	**HALIKARNAS FR (FR COLLECTIONS)**	**PASS**

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BS 7176 - Specification For Resistance To İgnition Of Upholstered Furniture For Non-Domestic Seating By Testing Composites

SCOPE

This Standard specifies requirements for the resistance to ignition of upholstered furniture used for seating when tested in accordance with BS 5852, BS EN 1021-1 or BS EN 1021-2, as appropriate. The levels of ignition resistance have been set after careful consideration of the fire risk of the particular end-use environment involved.

Hazard Level	Low	Medium	High
BS 5852 for Upholstered Furniture			
Ignition Source	0 and 1 ✓	0 and 5	0 and 7

Hazard category	Requirements	Typical examples
Low hazard	Resistant to ignition source: smouldering cigarette as specified in BS EN 1021 1:2006. Resistant to ignition source: match flame equivalent as specified in BS EN 1021 2:2006.	Colleges Day centres Exhibitions Museums Offices Schools Universities

TEST METHOD

Source 0: Smoldering cigarette A cigarette is placed in the slit of the test rig and allowed to burn along its entire length. If no flaming or gradual smoldering is observed in both the cover and the inner material, the test is recorded as no ignition and the material passes the test.

Source 1: Simulated match A burner is lit, held across the slit of the test rig for 20 seconds, and then removed. If no flaming or gradual smoldering is observed in both the cover and the inner material, the test is recorded as no ignition and the material passes the test.

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RESULT

The following 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 materials in use.

BS EN 1021-1: Smoldering Ignition		Result
Smoke ceased within	5 s	PASS
Glowing ceased at:	-	
Unsafe escalating smoldering combustion?	No	
Any detectable amounts of smoke, Heat or glowing 60 Minutes after extinction of the source:	No	
Specimen essentially consumed or smolders to extremities including thickness within the duration of the test	No	
Flaming Criteria	-	
Occurrence of flames?	No	

BS EN 1021-2: Match Ignition		Result
Flaming Duration:	No Ignıtıon	PASS
Smoldering Criteria	-	
Unsafe escalating smoldering combustion?	No	
Any detectable amounts of smoke, Heat or glowing 60 Minutes after extinction of the source:	No	
Specimen essentially consumed or smolders to extremities including thickness within the duration of the test	No	
Flaming Criteria	-	
Unsafe escalating flaming combustion.	No	
Essentially consumed within the duration of the test	No	
Flame front reached extremities and/or full thickness with the duration of the test	No	
Flaming continued to burn for more than 120s after removal of the flaming source.	No	

BS 5852 Ignition Source	Observations	Result
0 (cigarette)	No flaming or progressive smouldering was observed within one hour of placement of the cigarettes.	PASS
1 (butane flame)	Flaming ceased within the specified two minute period after removal of the butane flame and no progressive smouldering occurred.	PASS

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SAMPLE IMAGE

END OF REPORT

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Report Date:	11.10.2021
Total number of pages:	9 (Pg)
Sample ID:	**HALIKARNAS FR (FR COLLECTIONS)**

	TEST	METHOD	Specimen	RESULT
	CAL 117 STANDARD FOR UPHOLSTERED SEATING	**CAL 117**	**HALIKARNAS FR (FR COLLECTIONS)**	**PASS**

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CAL 117 (California Bureau of Home Furnishings and Thermal Insulation Technical Bulletin 117)

Scope

The intent of this standard is to produce upholstered furniture which is safer from the hazards associated with smoldering ignition. This standard provides methods for smolder resistance of cover fabrics, barrier materials and resilient filling materials for use in upholstered furniture.

These test methods are designed for the assessment of the resistance of upholstered furniture component assemblies to combustion after exposure to smoldering cigarettes under specified conditions.

Summary Of Method

These test methods consist of three tests used to evaluate the cigarette ignition resistance of upholstery cover fabrics, barrier (interliner) materials and resilient filling materials used in the manufacture of upholstered furniture. Each test involves a miniature assembly consisting of the component to be tested along with other specified materials, mounted on a plywood mock-up that resembles a small chair seat and back. The assembly is exposed to a lighted cigarette as an ignition source.

Test Conditioning			
Temperature	21± 3 °C	**Relative Humidity**	55%
*Condition test specimens and cigarettes prior to the test for a minimum of 24 hours at 21° ± 3 °C (70° ± 5 °F) and less than 55% relative humidity. If conditions in the test area are not the same as in the conditioning area, tests should begin within 10 minutes of removal of samples from conditioning area.			

SECTION 1: COVER FABRIC TEST

Scope

For cover fabrics that pass this section, the first layer of filling materials located below the cover fabric shall also meet the test requirements of section 3 of this test method.

Procedure

-Place each assembled vertical and horizontal panel in a mini-mock-up tester

-Light three cigarettes and place a lighted cigarette on each of the three test assemblies so that the cigarette lies in the crevice and against the vertical panel with equal distance of cigarette ends from either side of the assembly.

-Place a piece of sheeting material over each cigarette, smoothing it over the cigarette to ensure intimate contact. Pin the sheeting to the vertical panel about 2.5 in. (63 mm) above the crevice.

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-Allow the cigarettes to burn their full lengths unless an obvious ignition of the polyurethane substrate occurs. If a cigarette extinguishes before burning its entire length, place a fresh cigarette on a new test assembly and cover with sheeting fabric until either (1) three cigarettes have burned their entire length on three individual test specimens, or (2) three cigarettes have self-extinguished on the specimen.

- If continuing ignition occurs (that is, fabric and filling materials are ignited and are smoldering and generating smoke at a rapid rate), there is no need to wait until a cigarette has burned its full length. Stop the test and extinguish the burning material. Ventilate the test room and record an ignition for the cigarette test location.

- If no obvious ignition occurs, record the vertical char on the vertical panel, to the nearest 0.1 in. (2.5 mm), measured from the original crevice position to the highest part of the destroyed or degraded fabric. Determine the original crevice position by laying a straightedge or ruler between the two marks previously marked on the edges of the vertical panel. The highest point of destroyed or degraded fabric is defined as the highest point at which any of the fabric is charred from front to back.

-Classify those fabrics that do not develop obvious ignition and exhibit a vertical char of less than 1.8 in. (45 mm) as Class I. Classify fabrics developing obvious ignition or vertical char of 1.8 in. or more as Class II.

Accepted Criteria

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

a) The mock-up test specimen continues to smolder after the 45 minute test duration;

b) A char develops more than 1.8 inches (45 mm) in any direction from the cigarette on the cover fabric measured from its nearest point.

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.

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Test Results

Specimen	Smouldering after 45 minutes	Vertical char length in inches	Cigarette burned entire length	Occurrence of flames	Result
#1	No	1,57 (40 mm)	Yes	No	PASS
#2	No	1,45 (38 mm)	Yes	No	PASS

SECTION 2: BARRIER MATERIALS TEST

Scope

This test method measures the tendency of the barrier material to smolder after exposure to smoldering cigarettes under specified conditions.

Upholstery cover fabrics that fail the cover fabric test described in Section 1 can be used in upholstered furniture if a barrier (interliner) material that passes this test method is used. When a barrier is required, the barrier material must cover all sides and top of the seating cushion(s).

If a test fabric fails, it must be used in a furniture structure that requires a flame-resistant barrier material inside between the outer fabric and the padding. Barrier material should be tested. The barrier material must cover all edges and tops of the padding (there are exceptions for non-detachable or irreversible cushions). Barrier materials testing is performed in much the same way as cover fabric testing. A composite assembly of standard Type 2 fabric, barrier material and standard flexible polyurethane foam is subjected to smoldering tests for smoking.

Procedure

- Mark the position of the crevice on the side of the vertical polyurethane substrate.

- Light three cigarettes and place a lighted cigarette on each of the test assemblies so that the cigarette lies in the crevice and against the vertical panel with equal distance of cigarette ends from either side of the assembly.

- Place a piece of sheeting material over each cigarette, smoothing it over the cigarette to ensure intimate contact. Pin the sheeting to the vertical panel about 2.5 in. (63 mm) above the crevice .

-Allow the cigarettes to burn their full lengths unless an obvious ignition of the substrate occurs. If a cigarette extinguishes before burning its entire length, place a fresh cigarette on a fresh area of the test assembly and cover with sheeting fabric until either (1) three cigarettes have burned their entire length on three individual test specimens or (2) three cigarettes have self-extinguished on the sample.

- If continuing ignition occurs (that is, fabric and filling materials are ignited and are smoldering and generating smoke at a rapid rate), there is no need to wait until a cigarette has burned its full length. Stop the test and extinguish the burning material. Ventilate the test room and record an ignition for the cigarette test location.

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- If no obvious ignition occurs, record the vertical char on the vertical panel to the nearest 0.1 in. (2.5 mm), measured from the original crevice position to the highest part of the destroyed or degraded cover fabric. Determine the original crevice position by laying a straightedge or ruler between the two marks previously marked on the edges of the vertical panel. The highest point of destroyed or degraded fabric is defined as the highest point at which any of the fabric is charred from front to back.

- Classify barrier materials that do not develop obvious ignition and exhibit a char length of less than 2.0 in. (51 mm) as Class A. Classify materials that develop obvious ignition or exhibit a char length of greater than 2.0 in. (51 mm) as Class B.

Accecpted Criteria

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

a) The mock-up test specimen continues to smolder after the 45 minute test duration;

b) A char develops more than two inches (50 mm) in any direction from the cigarette on the Standard Type II cover fabric measured from its nearest point.

c) The mock-up test specimen transitions to open flaming.

2. A barrier material 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 barrier material fails the test.

4. If any one of the three initial specimens fails, repeat the test on additional three specimens. If all three additional specimens pass the test, the barrier material passes the test. If any one of the additional three specimens fails, the barrier material sample fails the test.

Test Results

Specimen	Smouldering after 45 minutes	Vertical char length in inches	Cigarette burned entire length	Occurrence of flames	Result
#1	No	1,57 (40 mm)	Yes	No	PASS
#2	No	1,45 (38 mm)	Yes	No	PASS

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SECTION 3. RESILIENT FILLING MATERIAL TEST

Scope

This test method measures the tendency of resilient filling materials to smolder and contribute to fire propagation, when covered with smolder resistant fabric and subjected to a smoldering ignition source. The materials covered by this test method include, but not limited to:

1. Resilient foams or other filling materials,
2. Batting of natural and man-made fibers
3. Resilient pads of natural or man-made fibers.

Resilient filling materials that fail the test described in this section can be used in upholstered furniture if a barrier (interliner) material that passes Section 2 of this test method is used between the cover fabric and the filling materials.

Procedure

- Light three cigarettes and place a lighted cigarette on each of the three test assemblies so that the cigarette lies in the crevice and against the vertical panel with equal distance of cigarette ends from either side of the assembly.

- Place a piece of sheeting material over each cigarette, smoothing it over the cigarette to ensure intimate contact. Pin the sheeting to the vertical panel about 2.5 in. (63 mm) above the crevice.

- Allow the cigarettes to burn their full lengths unless an obvious ignition of the substrate occurs. If a cigarette extinguishes before burning its entire length, place a fresh cigarette on a new test assembly and cover with sheeting fabric until either (1) three cigarettes have burned their entire length on three individual test specimens, or (2) three cigarettes have self-extinguished on the sample.

- If continuing ignition occurs (that is, fabric and filling materials are ignited and are smoldering and generating smoke at a rapid rate), there is no need to wait until a cigarette has burned its full length. Stop the test and extinguish the burning material. Ventilate the test room and record an ignition for the cigarette test location.

- If no obvious ignition occurs, record the vertical char on the vertical panel measured from the original crevice position to the highest part of the destroyed or degraded fabric. Determine the original crevice by laying a straightedge or ruler between the two marks previously marked on the edges of the cover fabric.

- Classify fillings/paddings that do not develop obvious ignition and exhibit a vertical char length of less than 1.5 in. (38 mm) as Class A. Classify fillings/ paddings that develop obvious ignition or exhibit a vertical char length of greater than 1.5 in. (38 mm) as Class B.

Accepted Criteria

1. A single mock-up test specimen fails the requirements of this test procedure if any of the following criteria occurs:

a) The mock-up specimen continues to smolder and the test must be terminated due to intensifying smoldering.

b) The mock-up specimen transitions to open flaming;

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c) The resilient filling material substrate (i.e., sum of both horizontal and vertical pieces) of the mock-up test specimen has more than 20% mass loss.
- Calculate the percentage of mass loss for each test specimen substrate piece from each mock-up as: Percentage mass loss = ((pre-weight (A) – post-weight (B))/pre-weight (A)) x 100%.

2. The resilient filling material passes the test if three mock-up specimens pass the test.

3. If more than one specimen fails, the resilient filling material fails the test.

4. If any one of the three initial specimens fails, repeat the test on additional three specimens. If all three additional specimens pass the test, the resilient filling material passes the test. If any one of the additional three specimens fails, the resilient filling material fails the test.

Test Results

Specimen	Smouldering after 45 minutes	Pre-Weight (g)	Post-weight (g)	Cigarette burned entire length	Occurrence of flames	Loss Of Mass (%)	Result
#1	-	-	-	-	-	-	-
#2	-	-	-	-	-	-	-

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IMAGE

END OF TEST REPORT

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TÜRCERT TEKNİK KONTROL VE BELGELENDİRME A.Ş.

5190243IB02
2021111021

Overall Rating: PASS

Report No: 2021111021
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Sample Accepted on: 23.09.2021
Report Date: 11.10.2021
Total number of pages: 6 (Pg)

Sample ID: **HALIKARNAS FR (FR COLLECTIONS)**

	TEST	METHOD	RESULT
*	**Fire behaviour of building materials and elements Part 1: Classification of building materials Requirements and testing**	**DIN 4102-1**	**PASS** **B2**

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Environment

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X	Residential (domestic) environment
X	Commercial and light-industrial environment
X	Industrial environment
X	Medical environment

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DIN 4102-1

Scope

The standard applies to the classification of the fire behavior of building materials to assess the risk as a single building material and in combination with other building materials.

Building Material Classes

The building materials are classified according to their fire behavior into the building material classes according to Table 1:

Building Material Classes	Building Inspectorate Designation
A A1 A2	Non-combustible building materials
B B1 B2 B3	Flammable building materials Flame retardant building materials Normally flammable building materials Easilly flammable building materials

Building material class B2

Procedure:

- Ignitibility test: The ambient temperature of the test room is to be about 20 °C. Mount the specimen in the holder/frame and suspend the entire frame vertically in the cabinet. Position the burner vertically to set the flame height to 20 mm, then tilt the burner to a 45° angle and place it in the cabinet.
- For bottom edge ignition testing, position the burner so that flame is applied to the bottom edge of the specimen at the centre of its width and thickness. For specimens with a thickness greater than 3 mm, apply the flame to the lower surface of the specimen at the least favourable point in terms of fire behaviour. The front edge of the burner's stabilizer is to be 16 mm away from the specimen's bottom edge, measured along the nozzle axis.
- Where surface ignition testing is necessary, burner placement and flame impingement shall be. The flame shall be applied to the centre of the specimen's width.
- Apply the flame for 15 seconds and then pull the burner back, taking care not to create any draught. Measure the time it takes for the flame tip to reach the gauge mark.
- Multi-layered materials are to be tested and as specified in subclause, except that the flame is to be applied to the least favourable point on the specimen's front edge.
-If materials are to be used in composite structures together with other materials, these shall be tested together.

Requirements For Classification

Building materials, with the exception of floor coverings, meet the requirements for classification in building material class B1 if they pass the fire pit test and meet the requirements for building material class B2.

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RESULTS

		Results of the Numune test (part 1)			
Row-no.	Foil-type:	Measurements test specimen HALIKARNAS FR (FR COLLECTIONS)			
1	No. of test specimen arrangement according to DIN 4102, part 15 , table 1	-			
2	Max. flame height above bottom edge cm Time [1] min : s	8 cm 10 s			
3	Melt through / burn through Time[1] min : s	-			
4	Observations on the backside of the specimens Flames/smouldering Time [1] min : s	-			
5	Discolouration Time [1] min : s	20 s			
6	Burning droplets Start [1]	-			
7	Extent sporadic burning droplets continually falling particles min : s	-			
8	Falling particles which burns Start [1] min : s	-			
9	sporadic falling parts	-			
10	continually falling particles	-			
11	Duration of the burning on the screen bottom (max.) min : s	120 s			
12	Interference of the burner flame by dripping /falling particles Time [1] min : s	-			
13	Early termination of the test End of burning at the specimen [1] min : s	-			
14	Time of early cancellation of the test [1] min : s	-			
	Continuous burning after termination of the test	-			
15	Duration min : s	-			
16	Number of specimens	1			
17	Front side of the specimen	-			
18	Back side of the specimen	-			
19	Flame length cm	7 cm			
20	Smouldering after termination of the test Duration min : s	-			
21	Number of specimens	-			
	Location	-			

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		Results of the Numune test (part 1)			
Row-no.	Foil-type:	Measurements test specimen HALIKARNAS FR (FR COLLECTIONS)			
22	Lower half of the specimens	-			
23	Upper half of the specimens	-			
24	Front side of the specimen	-			
	Backside of the specimen	-			
	Smoke development	-			
	< 400 % x min	-			
	> 400 % x min	-			
	Diagram in appendix	-			
	Residual lengths Single values cm	-			
	Average values cm	-			
	Photo of the specimen on page	-			
	Smoke temperature	119 °C			
	Maximum value of the averaged values ºC Time [1] min : s	-			
	Diagram in appendix Nr.	-			

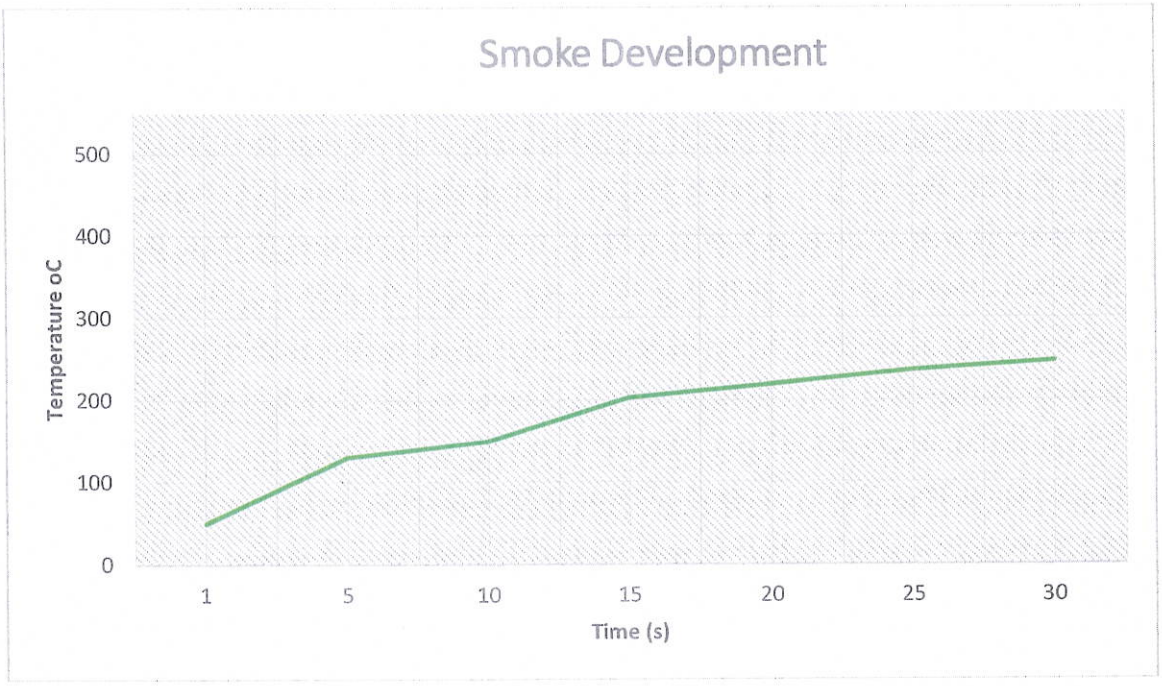

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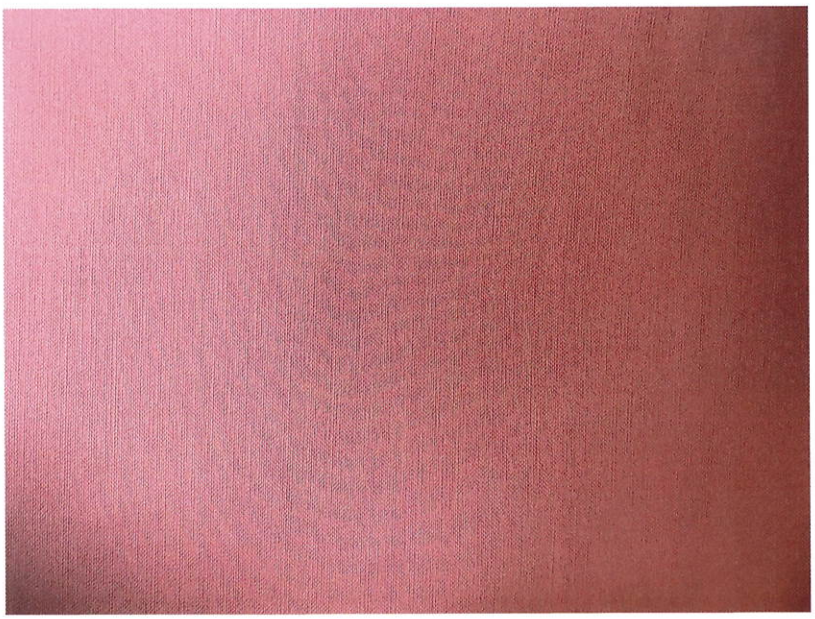
IMAGE OF SAMPLE



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UNITED ACCREDITATION FOUNDATION UAF

5190243IB02

2021111018

Overall Rating: PASS

Report No: 2021111018
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Sample Accepted on: 23.09.2021
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Total number of pages: 5 (Pg)

Sample ID: **HALIKARNAS FR (FR COLLECTIONS)**

	TEST	METHOD	SPECIMEN
*	IMO Resolution MSC FTP Code Annex 1:Part 8	IMO FTP CODE	HALIKARNAS FR (FR COLLECTIONS)

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X	Industrial environment
X	Medical environment

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IMO Resolution MSC FTP Code Annex 1:Part 8 – Test for Upholstered Furniture

Conditioning

Immediately prior to testing the samples was placed in indoor ambient conditions for 72 hours and then conditioned in a standard atmosphere of 23±2°C temperature and 50±5% relative humidity for at least 16 hours.

Procedure

The samples was tested in accordance with IMO FTP Code 2010 : Part 8 using ignition sources 0 and 1.
The sponsor sampled the material and the specimens were cut from the sample received to the dimensions set out in the standard.

Requirements

Ignition Source 0	No progressive smouldering or flaming within 1 hour of the placement of the cigarette
Ignition Source 1	All progressive smouldering and flaming to cease within 120 sec of removal of the burner tube

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TEST RESULT

Cigarette Test – Source 0		
Specimen No.	**1**	**2**
Extinction Time (smouldering) (min)	18	15
Time of cover split	DNS	DNS
Melting (Yes/No)	No	No
Dripping (Yes/No)	No	No
Charring (Yes/No)	Yes	Yes
Progressive Smouldering (Yes/No)	No	No
Pass/Fail	PASS	PASS

DNS= Material did not split

Propane Flame Test – Source 1		
Specimen No	**1**	**2**
Time of Ignition (s)	3	3
Extinction time of flames after removal of burner (s)	2	3
Time to Cover Split (s)	DNS	DNS
Melting (Yes/No)	No	No
Dripping (Yes/No)	No	No
Charring (Yes/No)	Yes	Yes
Progressive Smouldering (Yes/No)	No	No
Pass/Fail	PASS	PASS

DNS= Material did not split

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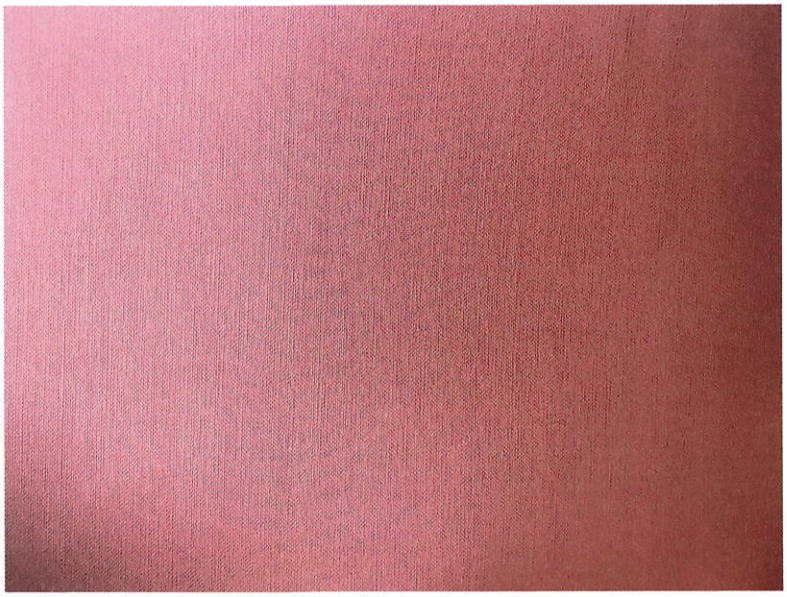
SAMPLE IMAGES



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TEST REPORT

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2021111020

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Sample Accepted on: 23.09.2021
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Total number of pages: 7 (Pg)

Sample ID: **HALIKARNAS FR (FR COLLECTIONS)**

	TEST	METHOD	RESULT	
*	Safety against fire - Building materials - Reaction to fire tests - Electrical burner test for flexible materials	NF P92-503	PASSED	M2
*	Safety against fire - Building materials - Reaction to fire tests - Flame retention test and flame spread rate	NF P92-504	PASSED	
*	Fire Test to Building Material - Dripping test	NF P92-505	PASSED	
*	Fire Safety - Building - Interior Fitting Materials - Classification According To Their Reaction To Fire	NF P92-507	PASSED	

This report can be used as a substitute for conformity to standards, and can be used in tenders and product brochures.

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X	Industrial environment
X	Medical environment

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Procedure

NF-P92-503 to 507 standard- FR fabric test for French contract industry (also known as M1)

NF-P92-503: Safety against fire - Building materials - Reaction to fire tests - Electrical burner test for flexible materials

A fabric sample is placed in a metal frame above an extreme heat source at an angle of 30^0.
A flame is generated from the heat source directly on the surface of the fabric.

The following parameters are observed:

- How long the fabric continues to burn after the flame is removed (after flame)
- Are there burning droplets falling from the burning fabric
- Measure the length and width of the burn damage after the flame is distinguished,

NF-P92-504: Safety against fire - Building materials - Reaction to fire tests - Flame retention test and flame spread rate

This test must be performed if the fabric contracts or melts during the NF-P92-503 test.

A fabric sample is placed vertically in a metal frame. A flame is generated an is run horizontally along the whole surface of the fabric.

The following parameters are observed:

- How long the fabric continues to burn after the flame is removed (after flame)
- Are there burning droplets falling from the burning fabric.

NF-P92-505: Safety against fire - Building materials - Reaction to fire tests - Drip test for thermal melting materials

This test must only be performed if there are burning droplets falling during the NF-P92-503 and NF-P92-504 test.
A fabric sample is placed horizontally under a metal sift. Burning heat is generated on the fabric causing burning droplets to fall from the fabric onto a cotton wool pad directly beneath it.
The following parameter is observed:

- Do the burning droplets ignite the cotton wool.

French standards have also introduced a classification between M1 and M4. According to this,

M1 - Non-flammable
M2 - Low flammability
M3 - Moderately flammable
M4 – Flammable

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Requirements

Following completion of the NF-P92-503 to 505, the fabric can be categorized as NF-P92-507 and classified from M1 to M4. M1 being the highest standard of FR and M4. M1 being the highest standard of FR and M4 being the lowest:

M1:

- NF-P92-503 the after flame is max 5 seconds
- NF-P92-503 the width and length of burn damage is max 250 mm
- NF-P92-504 the after flame is max 2 seconds
- NF-P92-503 to 505 there are no burning droplets

M2:

- NF-P92-504 the after flame is max 5 seconds
- NF-P92-503 the width and length of burn damage is max 350 mm
- NF-P92-503 to 505 there are no burning droplets

M3:

- NF-P92-503 the width and length of burn damage is max 90 mm
- NF-P92-503 to 505 there are no burning droplets

M4:

- If the fabric does not meet the criteria of M1,M2 or M3, it is automatically classified as M4= not flame retardant/resistant

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RESULTS

- The test specimens have not been cleaned nor submitted to an accelerated ageing procedure.

Conditioning

minimum 7 days at (23 ± 2) °C and (50 ± 5) % RH or until constant mass is achieved

ELECTRIC BURNER TEST (NF P92-503)

	Sample 1				Sample 2				Sample 3				Sample 4				
Piercing	No				No				No				No				
Lighting time (s)	–	–	–	–	-	–	–	–	-	–	–	–	–	–	–	–	
Duration of flaming after pilot flame removal (s)	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	
Spread of glowing dots beyond the char area	–				–				–				–				
Fall of flaming droplets or debris	No				No				No				No				
Melting behavior, fall of non-flaming molten drips	No				No				No				No				
Destroyed or burned lenght (mm)	100				102				105				103				Average lenght 103

Ignition duration ≤ 5s	Yes
Average Lenght < 250 mm	Yes
Inflamed falling drippings	No

* No flames were observed in the sample.

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FLAME SPREAD TEST (NF P92-504)

	Sample 1	Sample 2	Sample 3	Sample 4
Duration of flaming after ISO 6940 burner removal	No	No	No	No
Material's maximum duration of flaming inferior or equal to 2s	Yes			
Material's maximum duration of flaming inferior or equal to 5s	Yes			
Fall of not flaming molten drips	No	No	No	No
Fall of flaming molten drips	No	No	No	No

Each test has been carried out with a flame application time of 5s

- The test specimens have not been cleaned nor submitted to an accelerated ageing procedure.

Conditioning

minimum 7 days at (23 ± 2) °C and (50 ± 5) % RH or until constant mass is achieved

	first ignition (s)	non-flaming debris	flaming debris	ignition cotton wool
1	*	yes	no	no
2	*	yes	no	no
3	*	yes	no	no
4	*	yes	no	no

* no ignition

Conclusion : **M2**

Overall Rating : PASS

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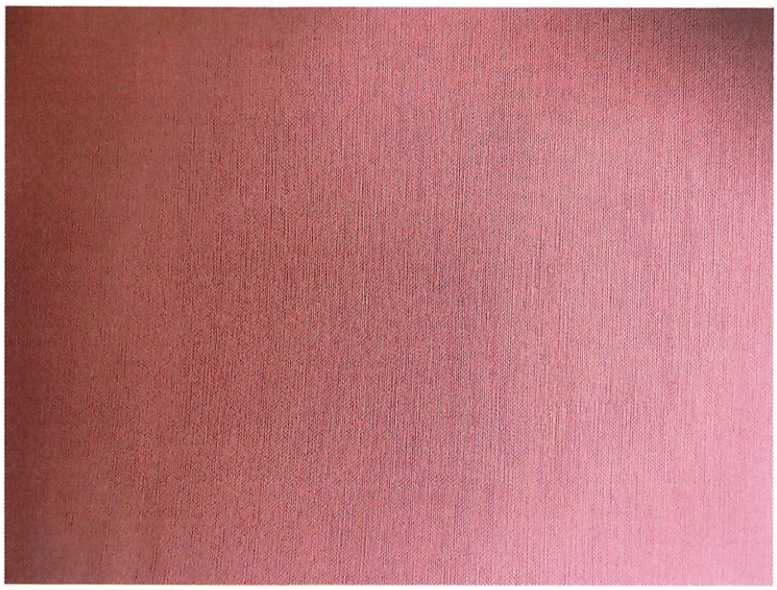
Sample Image



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TEST REPORT

EUROLAB LABORATORY SERVICES

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20211011045

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Sample Accepted on: 23.09.2021
Report Date: 11.10.2021
Total number of pages: 5 (Pg)

Sample ID: **HALIKARNAS FR (FR COLLECTIONS)**

	TEST	METHOD	RESULT
*	**Burning Behaviour Of Equipment Materials - Testing And Classification Of Upholstery Fabrics**	**ÖNORM B 3825**	PASS
*	**Fire Behavior Of Materials, With The Exception Of Construction Products**	**ÖNORM A 3800**	PASS

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Environment

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X	Medical environment

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ÖNORM B 3825: Burning Behaviour Of Equipment Materials - Testing And Classification Of Upholstery Fabrics

Test Method

The test fabric is placed on a replica chair. A flame is directed at it. The ignition point, the afterburning time with flame and the afterglow time are documented.

Classification

Class	Characteristics
Hardly Flammable	No ignition
	After flame time max. 10 seconds
	After glow time max 60 seconds
	No flaming of the upholstery
Normally Flammable	Flame spread time<3,6 mm/sec
	Upholstery burns, but self-extinguishes
Easily Flammable	Other cases

Test Result

Specimen: Halıkarnas FR (FR Collections);

Longitudinal direction	Sample 1	Sample 2	Sample 3
Burningtime [s]	3	4	3
After-flametime [s]	1	1	1
After-glowtime [s]	1	1	1
Flame spread rate [mm/s]	7.41	7.16	6.83
Self-extinguishing before reaching the mark	PASS	PASS	PASS
Cross direction	Sample 1	Sample 2	Sample 3
Burningtime [s]	3	4	3
After-flametime [s]	1	1	1
After-glowtime [s]	1	1	1
Flame spread rate [mm/s]	7.34	7.19	6.81
Self-extinguishing before reaching the mark	PASS	PASS	PASS

Conclusion	This test is a compound test at which the furniture fabric will always be tested combined with upholstery. Classification, therefore, relates only to the described arrangement of specimens and foam used.

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ÖNORM A 3800: Fire Behavior Of Materials, With The Exception Of Construction Products

This describes a method for testing and evaluating flame resistance, smoke generation and droplet formation.

Classification

Class	Characteristics
Flammability Class	Hardly Flammable
Smoke Generation Classes (Q1)	Slightly Smoking
Smoke Generation Classes (Q2)	Normally Smoking
Smoke Generation Classes (Q3)	Heavily Smoking
Droplet Formation Classification (Tr1)	Not Dripping
Droplet Formation Classification (Tr2)	Dripping
Droplet Formation Classification (Tr3)	Igniting-Dripping

Test Result

Specimen: Halıkarnas FR (FR Collections)

Evaluation Criteria	Test # 1	# 2	# 3
Ignition of the not flamed specimen [yes/no]	Yes	Yes	Yes
After-flame time [min:sec]	3	4	3
After-glow time [min:sec]	1	1	1
Undestroyed length of flamed specimen [cm]	89	82	86
Dropping	No	No	No
According to the classification criteria of ÖNORM A 3800-1, point 4.1, the tested sample can be classified as "Brennbarkeitsklasse - schwerbrennbar"			

Sample	Smoke Emission [%]
#1	15
#2	18
#3	14

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SAMPLE IMAGES

****** End of Report ******

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EUROLAB Laboratory Services

TEST / INSPECTION REPORT

EUROLAB LABORATORY SERVICES

TÜRCERT TEKNİK KONTROL VE BELGELENDİRME A.Ş.

UNITED ACCREDITATION FOUNDATION UAF

5190243IB02

2021111028

Overall Rating: PASS

Report No: 2021111028
Applicant: **FLOKSER TEKSTİL**
Hadımköy Mah. Ürgüplü Cd. No:7 Arnavutköy/İSTANBUL
Contact Person : Cüneyt KAYA
Contact Telephone: 0534 678 99 14
Contact e-mail: cuneyt.kaya@flokser.com.tr
Sample Accepted on: 23.09.2021
Report Date: 11.10.2021
Total number of pages: 4 (Pg)

Sample ID: **HALIKARNAS FR (FR COLLECTIONS)**

	TEST	METHOD	SPECIMEN	RESULT
*	**Airworthiness Standards: Flammability Of Compartment İnterior Materials**	**FAR 25.853**	**HALIKARNAS FR (FR COLLECTIONS)**	**PASS**

EUROLAB LABORATORY SERVICES APPROVED

Seal

Customer Representative
Merve Nur KIRVELİ

Laboratory Manager
Merve ÖZLÜ

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EUROLAB ® (TÜRCERT TEKNİK KONTROL VE BELGELENDİRME A.Ş.)

Environment

The requirements and standards apply to equipment intended for use in

X	*Residential (domestic) environment*
X	*Commercial and light-industrial environment*
X	*Industrial environment*
X	*Medical environment*

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FAR 25.853 Airworthiness Standards: Flammability Of Compartment İnterior Materials

SCOPE

FAR 25.853 a is a vertical Bunsen burner test designed by the FAA (Federal Aviation Administration) to determine the flammability of materials used in airplane interiors including both cabin and cargo compartments. The test scope involves exposing three test specimens to a vertical Bunsen burner flame for a period of 60 seconds (method i) or a period of 12 seconds (method ii). While the specific criteria can vary depending upon the size of the aircraft and application being tested, overall, it encompasses:

- Interior ceiling panels
- Wall panels
- Galley ways and furnishings
- Flooring
- Partitions
- Seat cushions
- Stowage compartments

PROCEDURE

The tests for FAR 25.853 are conducted in a standardised 12-second or 60-second vertical fire test:

The test takes place in a test chamber in which the test specimen is installed vertically. The test specimen must comply with the dimensions 75mm x 305mm x nominal thickness (max. 13mm). The centre of the lower edge of the sample is exposed to a gas flame for 12 or 60 seconds, depending on the type of test. The flame has a defined height of 38mm. During the test, notes are taken for the afterflame time, burn length and flame time of drop. In order to pass the vertical fire test with 12 or 60 seconds flame exposure time, the following criteria must be met.

Afterflame time :	Flame time of the test specimen after removing the Bunsen burner
Flame time of drops :	Flame time of the parts dripped from the test specimen
Burning length :	Length that the test specimen has burned during the period of exposure to flame

The 60-second vertical fire test is applied to materials used in assemblies such as ceilings, wall panels, partitions, on-board kitchen fittings, large cupboards or luggage compartments.
The 12-second vertical fire test, on the other hand, is used for assemblies such as floor coverings, seat cushions, upholstery, coated fabrics, leather, electrical cable, joint and edge coverings and several more.

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REQUIREMENTS

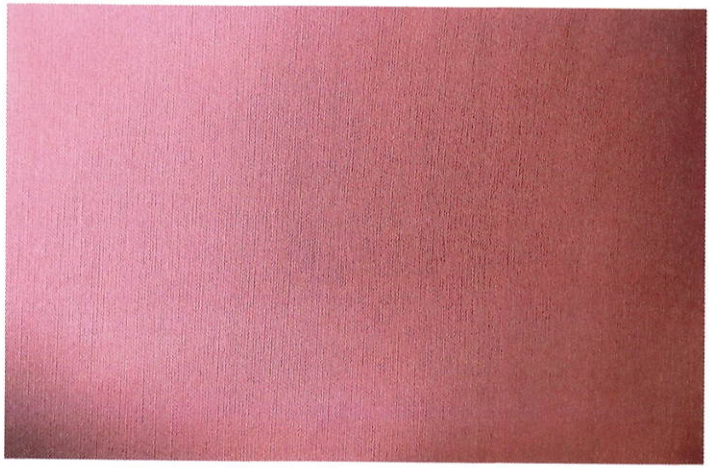
Three test specimens are exposed to a vertical Bunsen burner flame for a period of 60 seconds (method i) or 12 seconds (method ii). The test is terminated after any time has elapsed and the test specimens are evaluated for flame duration, ignition time, burning length and dripping flame duration. The results of the test are recorded and samples pass or fail according to the following criteria :

Test	Flame Duration (sec)	Average Drip Extinguisging Time (sec)	Average Burn Length
(i) 60 s	< 15 sec	< 3 sec	< 6" (152 mm)
(ii) 12 s	< 15 sec	< 5 sec	< 8" (203 mm)

RESULT

Specimen	Exposure Time	Requirements		Result
HALIKARNAS FR (FR COLLECTIONS)	12 sec	Flame Duration (sec)	< 15 sec	PASS
		Average Drip Extinguisging Time (sec)	< 5 sec	PASS
		Average Burn Length	< 8" (203 mm)	PASS 89 mm

SAMPLE IMAGE



END OF REPORT

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EKOTEKS LABORATUVAR ve GÖZETİM HİZMETLERİ A.Ş.
Esenyurt Firuzköy Bulvarı No:29 34325 Avcılar
İstanbul/ TÜRKİYE

TÜRKAK
Test
TS EN ISO/IEC 17025
AB-0583-T

TEST REPORT
DENEY RAPORU

AB-0583-T
21035422
12-21

Customer name:	FLOKSER TEKSTİL SAN VE TİC. A.Ş.
Address:	HADIMKÖY MAH. ÜRGÜPLÜ CAD. NO:7 ARNAVUTKÖY/İSTANBUL
Buyer name:	-
Contact Person:	CÜNEYT KAYA
Order No:	-
Article No:	HALI KARNAS (FR)
Name and identity of test item:	One sample of brown panel
The date of receipt of test item:	23.11.2021
Date of test:	23.11.2021-20.12.2021
Remarks:	-
Sampling:	The results given in this report belong to the received sample by vendor.
End-Use:	
Care Label:	-
Number of pages of the report:	13

The Turkish Accreditation Agency (TURKAK) is signatory to the multilateral agreements of the European co-operation for the Accreditation (EA) and of the International Laboratory Accreditation (ILAC) for the Mutual recognition of test reports.
EKOTEKS LABORATUVAR ve GÖZETİM HİZMETLERİ A.Ş. accredited by TÜRKAK under registration number [AB-0583-T] for ISO 17025:2017 as test laboratory.
The test and/or measurement results, the uncertainties (if applicable) with confidence probability and test methods are given on the following pages which are part of this report.

TESTED BY EKOTEKS TEST EDİLMİŞTİR

Seal	***Date***	***Customer Representative***	***Head of Testing Laboratory***
	20.12.2021	Zahide TAPAN	Sevim A. RAZAK 20.12.2021

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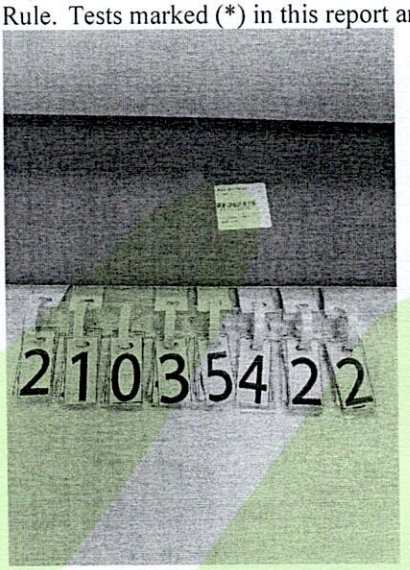
REQUIRED TESTS	EVALUATION	COMMENTS
PHYSICAL PROPERTIES TESTS		
Flammability/ BS 5852: Part 1- Smouldering Cigarette Test(1)	P	
Flammability/ BS 5852: Part 1-Match Flame Test(2)	P	
Flammability/ BS EN 1021-1- Smouldering Cigarette Test(3)	P	
Flammability/ BS EN 1021-2:2014 -Match Flame Test(4)	P	
Abrasion(5)	-	
COLOUR FASTNESS TESTS(5)		
Colour Fastness to Light	-	

P:Pass
F:Fail
R: Refer to retailer technologist.
(1)Test results were evaluated according to BS 5852: Part 1- Smouldering Cigarette Test limit values
(2)Test results were evaluated according to BS 5852: Part 1-Match Flame Test limit values
(3)Test results were evaluated according to BS EN 1021-1- Smouldering Cigarette Test limit values
(4)Test results were evaluated according to BS EN 1021-2: -Match Flame Test limit values
(5) No requirement was given

Gen.f136-2/03

REMARK: Original samples are kept for 3 months and all technical records are kept for 5 years unless otherwise specified.If requested, measurement uncertainty will be reported. But unless otherwise specified, measurement uncertainty is not considered while stating compliance with specification or limit values The reported uncertainty is based on a standard uncertainty multiplied by a coverage factor k=2, providing a level of confidence of approximately 95 %. The declaration of conformity was given in accordance with the Simple Acceptance Decision Rule. Tests marked (*) in this report are not included in the accreditation schedule



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TEST RESULTS

FLAMMABILITY; BS 5852: Part 1: 1979 – Smouldering Cigarette Test

Conditioning

Prior to testing: The sample was conditioned before the test for at least 16 hours in an atmosphere having a temperature of 20±5 °C and a relative humidity of 50±20 %
Test Condition : The sample was tested in an atmosphere with a temperature of 15°C to 30°C and relative humidity of 20% to 70 %.

Cover Fabric Specification (Standart test fabric as detailed in Schedule 1 Part 1 Of The Furniture and Furnishings (Fire)(Safety) Regulations 1988)

Fabric weight : 220±5 g/m²
Fabric Construction : Plain Weave woven fabric
Fabric Type : 100% Polyester Flame retardant fabric

İgnition Source : Source 0 – Test cigarette complying to standard

"The following 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 materials in use."

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TEST RESULTS

Criteria Of Failure		
Progressive smouldering failure	**Test 1**	**Test 2**
Progressive smouldering of the interior and/or cover is observed at any time within a period of 1 hour of the placement of the cigarette	NO	NO
Flaming Failure		
Any flaming of the interior and/or cover is observed at any time within a period of 1 hour of the placement of the cigarette	NO	NO
On final examination whether progressive smouldering should be observed when dismantle assembly and examine internally	NO	NO
RESULT	**PASS**	

O : Observed
NO : Not observed

Test Details

	Test 1	Test 2
Smoking ceased time (after placement of the cigarette) (min:sec)	02:29	05:08
Flame ceased time (min:sec)	-	-
Progressive smouldering time (min:sec)	-	-
Melting	NO	NO
Dripping	NO	NO
Charring	O	O

"The sample tested meets the requirements of Schedule 4 Part 1 (The cigarette test) of The Furniture and Furnishings (Fire) (Safety) Regulations 1988"

Total Uncertainty : ±%3,8

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TEST RESULTS

FLAMMABILITY; BS 5852: Part 1: 1979 – Match Flame Test

Conditioning

Prior to testing: The sample was conditioned before the test for at least 16 hours in an atmosphere having a temperature of 20±5 °C and a relative humidity of 50±20 %
Test Condition : The sample was tested in an atmosphere with a temperature of 15°C to 30°C and relative humidity of 20% to 70 %.

Cover Fabric Specification (Standart test fabric as detailed in Schedule 1 Part 1 Of The Furniture and Furnishings (Fire)(Safety) Regulations 1988)

Fabric weight : 220±5 g/m²
Fabric Construction : Plain Weave woven fabric
Fabric Type : 100% Polyester Flame retardant fabric

İgnition Source : Source 1 – Butane gas Flowing at 45 ml/min @ 25 ° C

Flame Height : 35 mm

Flame Application Time : 20±1 seconds

"The following 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 materials in use."

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TEST RESULTS

Criteria Of Failure		
Progressive smouldering failure	**Test 1**	**Test 2**
Any progressive smouldering of the interior and/or cover after 120 seconds of the removal of the burner tube	NO	NO
Flaming Failure		
Any flaming of the interior and/or cover after 120 seconds of the removal of the burner tube	NO	NO
On final examination whether progressive smouldering is observed when dismantle assembly and examine internally	NO	NO
RESULT	**PASS**	

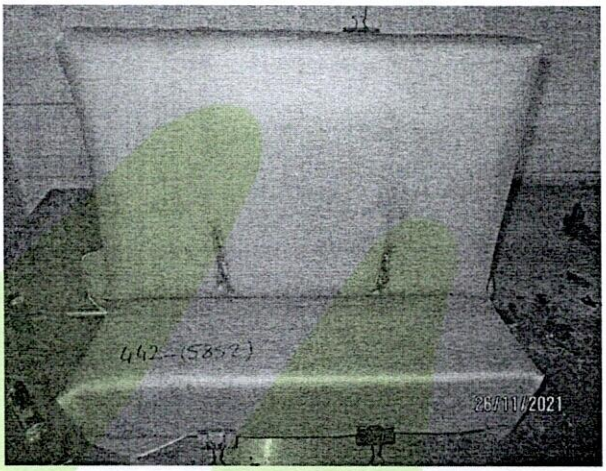
O : Observed
NO : Not observed

Test Details

	Test 1	Test 2
Duration of flaming (after removal of the burner) (min:sec)	-	-
Duration of progressive smouldering time (min:sec)	-	-

"The sample tested meets the requirements of Schedule 5 Part 1 (The match test) of The Furniture and Furnishings (Fire) (Safety) Regulations 1988"

Total Uncertainty : ±%3,0



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TEST RESULTS

FLAMMABILITY; BS EN 1021-1:2014 - Smouldering Cigarette Test

The sample has not been treated with a fire-retardant chemical. Therefore original sample was tested

Conditioning

Prior to testing: All samples and cigarettes were conditioned before the test for at least 24 hours in an atmosphere having a temperature of 23±2 °C and a relative humidity of 50±5 %
Test Condition : The sample was tested in an atmosphere with a temperature of 15°C to 30°C and relative humidity of 15% to 80 %.

Filling Specification

Filling Type : Non fire retardant polyurethane foam
Size : 450 x 300 x 75 mm (back) & 450 x 150 x 75 mm (seat)
Density / Hardness : 22 kg/m^3
Type B, 130 N

Specimen size : 800 x 650 mm (length x width)

İgnition Source : Test cigarette complying to standard

"The following 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 materials in use."

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TEST RESULTS

Criteria Of Failure		
Progressive smouldering failure	**Test 1**	**Test 2**
Any test assembly that display escalating combustion behaviour so that it is unsafe to continue the test and active extinction is necessary	NO	NO
Any test assembly that smoulders until it is largely consumed within the test duration	NO	NO
Any test assembly that smoulders to the extremities of the specimen , viz. upper or lower margins, either side or to its full thickness, within the duration of the test	NO	NO
Any test assembly that smoulders after one hour from the beginning of the test	NO	NO
Any test assembly that, on final examination, shows evidence of active smouldering	NO	NO
Flaming failure		
Any flaming of the interior and/or cover is observed at any time within a period of 1 hour of the placement of the cigarette	NO	NO
RESULT	**PASS**	

O : Observed
NO : Not Observed
NA : Not Applicable

Test Details

	Test 1	Test 2
Smoking ceased time (after placement of the cigarette) (min:sec)	03:01	04:58
Flame ceased time (min:sec)	-	-
Progressive smouldering time (min:sec)	-	-
Melting	NO	NO
Dripping	NO	NO
Charring	O	O

O : Observed
NO : Not Observed

"The fabric tested meets the requirements BS EN 1021-1:2014

Total Uncertainty : ±%0,9

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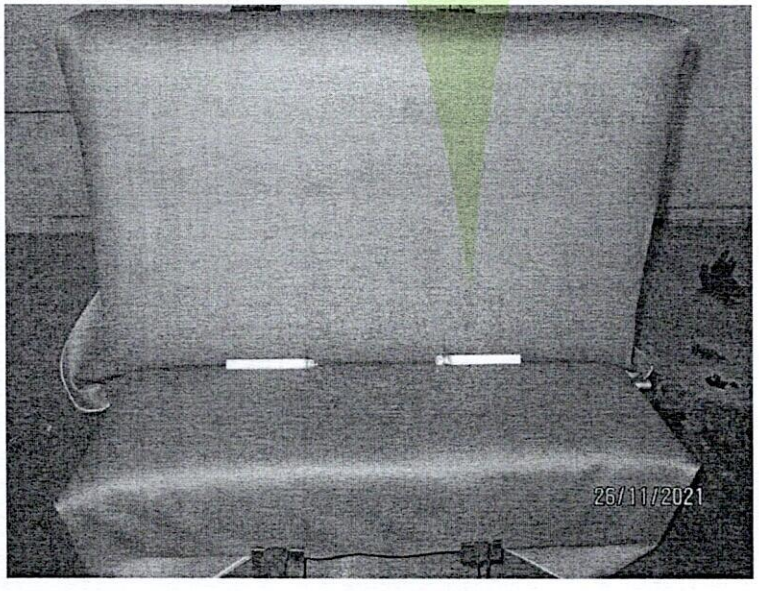

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TEST RESULTS

FLAMMABILITY; BS EN 1021-2:2014 -Match Flame Test

The sample has not been treated with a fire-retardant chemical. Therefore original sample was tested

Conditioning

Prior to testing: All samples and cigarettes were conditioned before the test for at least 24 hours in an atmosphere having a temperature of 23±2 °C and a relative humidity of 50±5 %
Test Condition : The sample was tested in an atmosphere with a temperature of 15°C to 30°C and relative humidity of 15% to 80 %.

Filling Specification

Filling Type : Non fire retardant polyurethane foam
Size : 450 x 300 x 75 mm (back) & 450 x 150 x 75 mm (seat)
Density / Hardness : 22 kg/m^3
Type B, 130 N

Specimen size : 800 x 650 mm (length x width)

İgnition Source : Butane gas Flowing at 45 ml/min @ 25 ° C

Flame Height : 35 mm

Flame Application Time : 15±1 seconds

"The following 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 materials in use."

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TEST RESULTS

Criteria Of Failure		
Progressive smouldering failure	**Test 1**	**Test 2**
Any test assembly that display escalating combustion behaviour so that it is unsafe to continue the test and active extinction is necessary	NO	NO
Any test assembly that smoulders until it is largely consumed within the test duration	NO	NO
Any test assembly that smoulders to the extremities of the specimen , viz. upper or lower margins, either side or to its full thickness, within the duration of the test	NO	NO
Any test assembly that smoulders after one hour from the beginning of the test	NO	NO
Any test assembly that, on final examination, shows evidence of active smouldering	NO	NO
Flaming failure		
Any test assembly that display escalating combustion behaviour so that it is unsafe to continue the test and active extinction is necessary	NO	NO
Any test assembly that burns until it essentially consumed within the test duration	NO	NO
Any test assembly on which any flame front reaches the lower margin, either side or passes through its full thickness within the duration of the test	NO	NO
Any flaming which continues for more than 120 s after removal of the burner tube	NO	NO
RESULT	**PASS**	

O : Observed
NO : Not Observed
NA : Not Applicable

Test Details

	Test 1	Test 2
Duration of flaming (after removal of the burner) (min:sec)	-	-
Duration of progressive smouldering time (min:sec)	-	-

O : Observed
NO : Not Observed
"The fabric tested meets the requirements BS EN 1021-2:2014

Total Uncertainty : ±%8,3

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