

Customer information:

HOEPKE

For the attention of Hilmar Carl

SAMPLE(S) FOR TEST :

Our Ref. : 245762
 Test Date : 22/08/2023
 Test End Date :
 Date : 17/10/2023

One, Composite – Ref: PLAZA FR

Note: The above descriptions are as supplied by the client and have not been verified by K-TEXLAB International who can take no responsibility for the accuracy of the description.

Laboratory Conditions : Sample is kept 18 hour under below conditions, Humidity(65 ±5%), Temperature(20 ±2)°C

Test Standart _____ : Fabric test are done according to BS EN ISO 14465:2003 standarts – ASTM&AATCC

TEST	SAMPLE 1
FLAMMABILITY TEST (CIGARETTE) - BS 5852 :1979 Part 1 source 0	P
FLAMMABILITY TEST (CIGARETTE) - CAL 117-2013	P
FLAMMABILITY TEST (CIGARETTE) -NFPA 260 Cigarette	P
FLAMMABILITY TEST (CIGARETTE AND MATCH) - IMO FTP Code 2010 : Part 8	P
FLAMMABILITY TEST (MATCH) - BS EN 1021-2:2014	P
FLAMMABILITY TEST (CIGARETTE) - BS EN 1021-1: 2014	P
FLAMMABILITY TEST- BS 5852: Crib 5:2006	P
FLAMMABILITY TEST– (MATCH) BS 5852 :1979 Part 1 source 1	P
FLAMMABILITY TEST - (Ignition source: match flame – MEDIUM HAZARD	P
FLAMMABILITY TEST - BS 7176 Fire test to Upholstered Furture for Non-domestic Seating - LOW HAZARD	P

P = MEETS BUYER' S REQUIREMENT / F = DOES NOT MEET BUYER' S REQUIREMENT / NR = NO REQUIREMENT / SC=STILL CONTINUES / X=NOT PERFORMED / NA = NOT APPLICABLE/ LS : LACK OF SAMPLE

TEST REPORT

Test Specification

Test Method : BS 5852-1: 1979 as modified by Schedule 4 Part 1 and Schedule 5 Part 1 of The Furniture and Furnishing (fire) (safety) Regulations 1988 (as amended)

Criteria Of Ignition : Ignition Source 0: Calibrated Senior Service Cigarette

Flame Application Time : 20±1 seconds

Filling Specification

Filling type : Polyurethane foam

Size : 450 x 300 x 75 mm (back) & 450 x 150 x 75 mm (seat)

Density / Hardness : 20-22 kg/m3 / Type B Hardness grade 130

Pre-treatment / Durability procedure

The sample was water soaked as clause 4 of BS 5651: 1978 as modified by The Furniture and Furnishings (fire) (safety) Regulations 1988 (as amended) then line dried.

Test Method	Pre Treatment	Flammability Performance Requirements	Result
BS 5852: Part 1: 1979, Ignition source 0 (Cigarette)	Watersoaked as clause 4.2 to 4.5 of BS 5651:1978 as modified by The Furniture and Furnishings (fire) (safety) Regulations 1988 (as amended) then Line dried.	Compliance with Schedule 4 Part 1 (The cigarette test) of The Furniture and Furnishings (fire) (safety) Regulations 1988 (as amended).	PASS

Note: Fabric was submitted for test rather than the upholstery composite so as suggested by The Guide to the Furniture Regulations the cover fabric was tested for cigarette resistance using standard polyurethane foam (non-modified) as this will give the furniture manufacturer a good indication of its likelihood to pass the cigarette test for the finished article.

Cigarette Test	Specimen No	Cigarette Burning Time	Flaming	Progressive Smouldering	Covering Splitting	Result
	1	33 min 36 sec	N	N	Y	PASS
	2	39 min 43 sec	N	N	Y	PASS

Y: Yes N: No N/A: Not Applicable P: Pass F: Fail D: Depth L: Length W: Width

Conclusion

The composite tested meets the requirements of Schedule 4 Part 1 of the Furniture and Furnishings (fire) (safety) Regulations 1988 (as amended). **PASS**

FLAMMABILITY TEST (CIGARETTE) - CAL 117-2013

Test Specification

Test Method : CAL TB 117:2013

Conditioning : At least 24 hours in an atmosphere having a temperature of 21° ± 3 °C (70° ± 5 °F) and less than 55% relative humidity

Remark : No = Was not observed

Test Method

The apparatus and method of testing were those described in California Technical Bulletin 117-2013, Section 1, for measuring the tendency of upholstery cover fabrics to smolder and contribute to fire propagation, when subjected to a smoldering ignition source.

Pass/Fail Criteria

Specimen No	Vertical Char Length (Inches)	Mock-up specimen continues to smolder After 45 Minutes	Mock-up test specimen transitions to open flaming	Test Result
1	1.38	NO	NO	PASS
2	1.42	NO	NO	PASS
3	1.23	NO	NO	PASS

RESULTS : Based on the above Results and Acceptance Criteria, the item tested is:

PASS

FLAMMABILITY TEST (CIGARETTE) -NFPA 260 Cigarette

Test Specification

Test Method : NFPA 260 Cigarette

TEST PERFORMED

NFPA 260 Standard Methods of Tests and Classification System for Cigarette Ignition Resistance of Components of Upholstered Furniture – 2019; Fabric Cover Test and UFAC Fabric Classification Test Method – 1990; Standard Test Methods for Cigarette Ignition Resistance of Components of Upholstered Furniture ASTM E 1353-16 – Cover Fabric Test

Test Conditions : 70 ±4°F, 65 ±5% Relative Humidity

ACCEPTANCE CRITERIA

- 1-) If the test specimen has no ignition, or if no individual specimen yields a vertical char of 45 mm (1.75 in; ASTM states 1.8 in.) or less, the fabric is classified a Class I cover fabric.
- 2-) If the vertical char of the test specimen greater than 45 mm (1.75 in.; ASTM states 1.8 in), the fabric is classified a Class II cover fabric.
- 3-) If an obvious ignition of the polyurethane substrate occurs on the test assembly, the fabric is classified a Class II cover fabric.

Specimen No	Char Length (Inches)
1	1.23
2	1.85
3	1.56

RESULTS : Based on the above Results and Acceptance Criteria, the item tested is:

CLASS I

CERTIFICATION I certify that the above results were obtained after testing specimen in accordance with the procedures and equipment specified by the standard stated above.

FLAMMABILITY TEST (CIGARETTE AND MATCH) - IMO FTP Code 2010 : Part 8

Test Specification

Test Method : FIRE TESTS ACCORDING to IMO FTP Code 2010 : Part 8 - Cigarette and Match

Conditioning

Immediately prior to testing the sample was placed in indoor ambient conditions for 72 hours and then conditioned in a standard atmosphere of 20 ± 5°C temperature and 50 ± 20% relative humidity for at least 16 hours.

The sample was tested in a room of volume 25m³ and 17 °C.

Procedure

The sample 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.

The sample was tested over non-fire retardant polyurethane foam with a density of approximately 20-22kg/m³.

Requirements

Ignition Source 0 : No progressive smouldering or flaming within one hour of the placement of the cigarette.

Ignition Source 1 : All progressive smouldering and flaming to cease within 120sec of removal of the burner tube.

Cigarette Specification (Source 0)

Dimensions (mm) : 69mm x 8mm

Mass (g) : 0.87

Smouldering Rate (mins/secs) : 10.9

Results

Ignition Source	Specimen 1		Specimen 2	
	0 (Cigarette)	1 (Match)	0 (Cigarette)	1 (Match)
Ignition Time (secs.)		2		3
Extinction Time (Flame) (secs.)		2		2
Extinction Time (Smoke) (secs.)	21	11	18	9
Time of Cover Split (secs.)	DNS	13	DNS	12
Extent of Damage to Back (Length x Width)	60x10mm	23x100mm	65x15mm	20x78mm
Extent of Damage to Base (Length x Width)	60x10mm	20x20mm	65x15mm	30x25mm
Progressive smouldering/flaming observed	NO	NO	NO	NO
Performance	PASS	PASS	PASS	PASS

Y: Yes N: No N/A: Not Applicable P: Pass F: Fail D: Depth L: Length W: Width

DNP – Did not propagate
 ME – Manually extinguished
 DNS – Material did not split
 BES - Burnt to edge of specimen

EC – Escalating combustion
 ES – Escalating smouldering
 DNO – Did not observe time of event
 BTTF – Burnt through thickness of foam

Note

The 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.

This report relates only to the samples submitted and as described in the report.

Comment

In our opinion, based on the test carried out on the sample supplied; the results indicate the sample meets the requirements according to IMO 2010 FTP Code, Part 8.

Uncertainty of measurement has not been taken into account when presenting the test result. The relevant uncertainty value is included as an annex which forms an integral part of the report.

The overall uncertainty budget IMO FTP Code 2010:Part 8 is as follows:-

- Measurements** : ±1mm
- Timings** : ±2 seconds

FLAMMABILITY TEST (CIGARETTE) - BS EN 1021-1: 2014

Test Specification

Test Method : BS EN 1021-1: 2014 (Smouldering Cigarette)

Side Tested : Face

Filling Specification

Filling type : Polyurethane foam

Size : 450 x 300 x 75 mm (Back) & 450 x 150 x 75 mm (seat)

Density/Hardness : 20-22 kg/m³, Type B Hardness grade130

Pre-treatment / Durability procedure

None

Conditioning

Prior to Testing : At least 72 hours in ambient indoor conditions, then at least 24 hours in an atmosphere having a temperature of 23±2°C and a relative humidity of 50±5%

At Time of Testing : Temperature of 10°C to 30°C and a relative humidity of 15% to 80% Air flow rate of less than 0,2 m/s

Test Method	Pre Treatment	Requirements	Result
BS EN 1021-1: 2014 (Smouldering Cigarette)	None	As BS EN 1021-1: 2014 (Smouldering Cigarette)	PASS

Criterion of ignition	Specimen 1	Specimen 2
Smouldering Criteria		
Unsafe escalating combustion (3.1a)	NO	NO
Test assembly consumed (3.1b)	NO	NO
Smoulders to extremities (3.1c)	NO	NO
Smoulders through thickness (3.1c)	NO	NO
Smoulders more than 1 hour (3.1d)	NO	NO
In final examination, presence of active smouldering (3.1e)	NO	NO
Flaming criteria	NO	NO
Occurrence of flames (3.2)	NO	NO
Comments		
Flaming ceased	-	-
Glowing ceased	-	-
Smoke ceased	-	-
Result (Non Ignition / Smouldering Ignition / Flaming Ignition)	NI	NI

I: Ignition

NI: Non-Ignition

Y: Yes

N: N

FLAMMABILITY TEST- BS 5852: Crib 5:2006

Test Specification

Test Method : BS 5852: 2006 Clause 11 (upholstery composites – Ignition Source 5 (Crib 5))

Filling Specification

Filling type : Polyurethane foam
Size : 440x 440 x 75 mm (Back) & 300x440x 75 mm (seat)
Filling Material : A combustion modified high resilience foam 34 kg/m3

Pre-treatment / Durability procedure

None

Conditioning

Prior to Testing : At least 72 hours in ambient indoor conditions, then at least 16 hours in an atmosphere having a temperature of 20±5°C and a relative humidity of 50±20%
At Time of Testing : Temperature of 10°C to 30°C and a relative humidity of 15% to 80% Air movement less than 0.2 m/s

Test Method	Pre Treatment	Flammability Performance Requirements	Result
BS 5852: 2006 Clause 11 (upholstery composites – Ignition Source 5 (Crib 5))	None	BS 5852: 2006 Clause 11 (upholstery composites) Ignition Source 5 (Crib 5)	PASS

FLAMMABILITY TEST- (MATCH) BS 5852 :1979 Part 1 source 1

Test Specification

Test Method : BS 5852 :1979 Part 1 source 1 (Match Flame Equivalent)

Side Tested : Face

Flame Application Time : 15±1 seconds

Filling Specification

Filling type : Polyurethane foam

Size : 450 x 300 x 75 mm (Back) & 450 x 150 x 75 mm (seat)

Density/Hardness : 20-22 kg/m³, Type B Hardness grade130

Pre-treatment / Durability procedure

None

Conditioning

Prior to Testing : At least 72 hours in ambient indoor conditions, then at least 24 hours in an atmosphere having a temperature of 23±2°C and a relative humidity of 50±5%

At Time of Testing : Temperature of 10°C to 30°C and a relative humidity of 15% to 80% Air flow rate of less than 0,2 m/s

Test Method	Pre Treatment	Flammability Performance Requirements	Result
BS 5852 :1979 Part 1 source 1 (Match Flame Equivalent)	None	BS 5852 :1979 Part 1 source 1 (Match Flame Equivalent)	PASS

Match flame equivalent / Criterion of ignition	Specimen 1	Specimen 2	Specimen 3
Smouldering Criteria			
Unsafe escalating combustion (3.1a)	NO	NO	NO
Test assembly consumed (3.1b)	NO	NO	NO
Smoulders to extremities (3.1c)	NO	NO	NO
Smoulders through thickness (3.1c)	NO	NO	NO
Smoulders more than 1 hour (3.1d)	NO	NO	NO
In final examination, presence of activesmouldering (3.1e)	NO	NO	NO
Flaming Criteria			
Unsafe escalating combustion (3.2a)	NO	NO	NO
Test assembly consumed (3.2b)	NO	NO	NO
Flames to extremities (3.2c)	NO	NO	NO
Flames through thickness (3.2c)	NO	NO	NO
Flames longer than 120 s (3.2d)	NO	NO	NO
Comments			
Flaming ceased	-	-	-
Glowing ceased	-	-	-
Smoke ceased	-	-	-
Result (Non Ignition / Smouldering Ignition / Flaming Ignition)	NI	NI	NI

I: Ignition

NI: Non-Ignition

Y: Yes

N:

Laboratory Supervisor
Şakir Karataş



Quality Assurance Manager
Aydın Kaçan

