TEST CERTIFICATE NO. BM 2.16.1.3 / 2015 / B / A

Parameter		Value	Remarks
Abrasion resistance, number of rubs	color change after 3 000 rubs, grade of grey scale	4	PN-EN ISO 12947-2:2000 + AC:2006 + PN-EN 14465:2005+A1:2007, Annex A *Test conditions:* the abradant: the standard woollen fabric, the nominal pressure used in the test: 12 kPa, magnification factor in the magnifying device: 8, in holders used foam. Criterion of destruction of the testing specimens in accordance with that standard: at least three threads completely destroyed
	1 specimen	90 000	
	2 specimen	90 000	
	3 specimen	90 000	
	4 specimen	90 000	
	Total abrasion resistance (the lowest individual result)	**90 000**	
Evaluation: according to PN-EN 14465:2005 + A1:2007: **A category: number of rubs ≥ 35 000 rubs,** B category: number of rubs: 12 000 ÷ 30 000, C category: number of rubs: 4 000 ÷ 10 000			

The end of Test Certificate

Person authorizing the Test Certificate

Kierownik
Laboratorium Badań Surowców
i Wyrobów Włókienniczych
Instytutu Włókiennictwa
mgr inż. Halina Królikowska

TEST CERTIFICATE NO. BM 2.16.1.1 / 2015 / B / A

Parameter	Value	Remarks
Seam slippage resistance, mm: Warp **The mean value of seam slippage resistance for lengthwise direction, mm** - individual results, mm Weft **The mean value of seam slippage resistance for crosswise direction, mm** - individual results, mm	 **4** 4; 4; 3,5; 3,5; 3,5 **3** 3; 3; 3; 2,5; 2,5	PN-EN ISO 13936-2:2005 *Test conditions:* tensile tester: Hounsfield H50 KM, testing force: 180 N, 100% PES sewing threads (74 ± 5) tex, the number of sewing needle: 110, the number of stitch: 32±2/100 mm, rate of extension: 50 mm/min., number of testing specimens: 5
Evaluation: according to PN-EN 14465:2005 + A1:2007 requirements level: **A category: ≤ 4 mm;** B category: ≤ 6 mm; C category: ≤ 8 mm		

The end of Test Certificate

Person authorizing the Test Certificate

Kierownik
Laboratorium Badań Surowców
i Wyrobów Włókienniczych
Instytut Włókiennictwa

mgr inż. Halina Królikowska

TEST CERTIFICATE NO. BM 2.16.1.2 / 2015 / B / A

Parameter		Value	Remarks
Propensity to surface fuzzing and pilling,	*the number of rubs*		PN-EN ISO 12945-2:2002 (modified Martindale method) *Test conditions:* the abradant: the standard woolen fabric; mass of weight: 415 ± 2 g;
	500	4 -5	
	1 000	4 - 5	
	2 000	**4 Slight surface fuzzing and prtially formed pills**	
Evaluation according to PN-EN 14465:2005+A1:2007: A category: grade ≥ 4 – 5; **B category: grade 4;** C category: grade 3 – 4; D category: grade 3			

The end of Test Certificate

Person authorizing the Test Certificate

Kierownik
Laboratorium Badań Surowców
i Wyrobów Włókienniczych
Instytut Włókiennictwa
mgr inż. Halina Królikowska

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Textile Research Institute

ilac-MRA

PCA Polskie Centrum Akredytacji BADANIA
AB 077

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Accredited by Polish Center for Accreditation for the testing specified in Scope of Accreditation No AB 077

92-103 Lodz, Brzezińska 5/15 Street
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e-mail: jpiestrzeniewicz@iw.lodz.pl, labchem@iw.lodz.pl

L - 693/2015

Łódź 29th December 2015

TEST CERTIFICATE No BCH 662/1631/2015/A

1. **Name and address of the principal:** **„TOPTEXTIL" Sp. z o.o.** ul. Wadowicka 12, 30 – 415 Kraków
2. **Name and description of tested sample:** sample of furniture upholstery fabric BRISTOL – material composition: 100% Polyester
3. **Date of receiving sample for testing:** 07.12.2015
4. **Date of performance of testing:** 10.12. – 29.12.2015
5. **Sampling:** by Client personally

RESULTS OF THE TESTS

Property of investigation	Results	Testing method	Test conditions	Level of requirements for categories according to PN-EN 14465:2005 + A1:2007 A	B	C
Colour fastness to rubbing:			Acclimatization conditions: temperature: (20,0±2)°C; relative humidity: (65,0±2)%; time: 4h;			
- Dry [1)]						
weft	a/ 4-5	PN-EN ISO 105-X12:2005	Test conditions : ambient temperature; rubbing pick: Ø 16±0,1mm; push: 9±0,2 N;	≥ 4-5	4	3-4
warp	a/ 4-5					
- Wet						
weft	a/ 4-5		degree of moisturising of rubbing to fabric: 100%	≥ 3-4	3	2-3
warp	a/ 4-5					

[1)] Colour fastness according to "Grey scale" , indicator "5" means – no change in colour, indicator "1" means – big change in colour
a/ staining rubbing to cotton

Remarks:
1. In accordance with ISO ILAC-IAF (January 2009) Communicate available on www.pca.gov.pl, laboratory accreditation referring to ISO/IEC 17025:2005 means fulfilling the demands concerning technical laboratory competence and managing system, which are required to ensure technical reliable results of the tests.
2. Test results refer only to the tested material.
3. Neither of the parts of this test certificate can be copied without written permission of the Head of the Laboratory.
4. Total number of pages of the test certificate 1.

Test authorized by:
Wiesława Lota, M.Sc. Eng.
W. Lota

Confirmed by:
LABORATORIUM BADAŃ CHEMICZNYCH I ANALIZ INSTRUMENTALNYCH
KIEROWNIK
mgr inż. Jerzy Piestrzeniewicz

Number of copies: 4
The test certificate receive:
- Customer – 2 copies
- IW – Laboratory of Chemical Testing and Instrumental Analysis – 1 copy
- IW – Laboratory of Testing Textile Raw Materials and Fabrics – 1 copy

INSTYTUT WŁÓKIENNICTWA
92-103 ŁÓDŹ, ul. Brzezińska 5/15, Textile Research Institute
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Łódź 29th December 2015

L - 693/2015

TEST CERTIFICATE No BCH 662/1631/2015/A/1

1. **Name and address of the principal:** **„TOPTEXTIL" Sp. z o.o.** ul. Wadowicka 12, 30 – 415 Kraków
2. **Name and description of tested sample:** sample of furniture upholstery fabric BRISTOL – material composition: 100% Polyester
3. **Date of receiving sample for testing:** 07.12.2015
4. **Date of performance of testing:** 10.12. – 29.12.2015
5. **Sampling:** by Client personally

RESULTS OF THE TESTS

Property of investigation	Results	Testing method	Test conditions	Level of requirements for categories according to PN-EN 14465:2005 + A1:2007 A	B	C
Colour fastness to: - *artificial light* [2)]	a/ 4	PN-EN ISO 105-B02:2014-11 Method 2	Device: Xenotest Alpha + Light conditions: - wavelenght: 300-400nm - filters: 7IR - BST temperature = 47 ± 3 °C - chamber temperature: 45 ± 3°C - RH = 40% Estimation: Multilight chamber, light D65	≥ 6	≥ 5	≥ 4

[1)] Colour fastness according to "Blue scale" , indicator "8" means – no change in colour, indicator "1" means – big change in colour
a/ change of colour

Remarks:
1. In accordance with ISO ILAC-IAF (January 2009) Communicate available on www.pca.gov.pl, laboratory accreditation referring to ISO/IEC 17025:2005 means fulfilling the demands concerning technical laboratory competence and managing system, which are required to ensure technical reliable results of the tests.
2. Test results refer only to the tested material.
3. Neither of the parts of this test certificate can be copied without written permission of the Head of the Laboratory.
4. Total number of pages of the test certificate 1.

Test authorized by:
Wiesława Lota, M.Sc. Eng.

Confirmed by:
LABORATORIUM BADAŃ CHEMICZNYCH I ANALIZ INSTRUMENTALNYCH
KIEROWNIK
mgr inż. Jerzy Piestrzeniewicz

Number of copies: 4
The test certificate receive:
- Customer – 2 copies
- IW – Laboratory of Chemical Testing and Instrumental Analysis – 1 copy
- IW – Laboratory of Testing Textile Raw Materials and Fabrics – 1 copy

TEST CERTIFICATE NO. BM 2.16.1.4 / 2015 / G / A

Parameter		Value	Remarks
Resistance to surface wetting (Spray test), degree	1 specimen	**2 - 3 wetting of the specimen face at spray points and partial wetting of the specimen face beyond the spray points**	PN-EN ISO 4920:2013-02 test were carried out in normal climate conditions; water temperature: 20°C; Assessment scale: **Sprinkle degree 5** – no sticking or wetting of the specimen face, **Sprinkle degree 0** – complete wetting of the entire face of the specimen
	2 specimen	**2 – 3 wetting of the specimen face at spray points and partial wetting of the specimen face beyond the spray points**	
	3 specimen	**2 – 3 wetting of the specimen face at spray points and partial wetting of the specimen face beyond the spray points**	

The end of Test Certificate

Person authorizing the Test Certificate

Kierownik Laboratorium Badań Surowców Włókienniczych Instytut Włókiennictwa

mgr inż. Halina Królikowska

IW INSTYTUT WŁÓKIENNICTWA
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PCA Polskie Centrum Akredytacji BADANIA
AB 029

LABORATORY OF FLAMMABILITY TESTING
90-520 Łódź, ul. Gdańska 118, tel.: +48(0) 42 2534435, +48(0)42 2534436, fax.+48(0)42 2534490

TEST CERTIFICATE ON FLAMMABILITY TESTING OF UPHOLSTERY COMPOSITE

No 1 / BP / 16

Test method:

PN-EN 1021-1:2014-12 Furniture. Assessment of the ignitability of upholstered furniture. Part 1: Ignition source smouldering cigarette.

Orderer:

TOPTEXTIL Sp. z o.o.
ul. Wadowicka 12
30-414 Kraków

Subject of testing:

Upholstery composite:
- upholstery fabric for furniture named BRISTOL
  composition: 100% polyester
- CM-3040 polyurethane flame-retardant foam

Testing sample of fabric and its characteristic supplied by the Orderer.

INSTYTUT WŁÓKIENNICTWA
ul. Gdańska 118, 90-520 Łódź
tel. 42 25 34 400, fax42 25 34 490

Results of testing:

Standard	Test method	Result
PN-EN 1021-1:2014-12	Ignition source: smouldering cigarette	**Neither progressive smouldering ignition nor flaming ignition occurred.**

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 materials in use.

Tests performed by:
technician Andrzej Kubacki

Test Certificate authorized by:
Laboratorium Badań Palności Wyrobów
KIEROWNIK
mgr inż. Małgorzata Szejna
05. 01. 2016

Sample received on: 09.12.2015
Test performed on: 04.01.2016

NOTES:
1. The Testing results refer only to the tested sample.
2. Test Certificate consists of 2 pages.
3. Test Certificate must not be reproduced in another way, than as a whole without a prior written consent of the Testing Laboratory.
4. The Orderer using this Test Certificate is responsible for the conformity between the product and sample submitted for testing.

Test Certificate No 1 / BP / 16 continued

DETAILED TESTING RESULTS

Climate conditions: temperature (23 ± 2) °C; humidity (50 ± 5) %
Testing conditions: temperature 22 °C; humidity 26 %

Preparation of test samples:
the upholstery fabric, exposed to wetting in water and drying procedure, in accordance with Appendix D of the norm PN-EN 1021-1:2014-12.

Upholstery composite characteristic:

upholstery composite:
- upholstery fabric for furniture named BRISTOL
  composition: 100% polyester
- CM-3040 polyurethane flame-retardant foam

Criteria		Cigarette			Remarks						
		1	2	3							
Smouldering criteria	Unsafe escalating combustion	NO	NO	-	Maximum cigarette smouldering time: 19 minutes 00 seconds						
	Test assembly consumed	NO	NO	-							
	Smoulders to extremities	NO	NO	-							
	Smoulders through thickness	NO	NO	-							
	Smoulders more than 1 hour	NO	NO	-	Maximum upholstery composite destruction:						
	In final examination, presence of active smouldering	NO	NO	-							
Flaming criteria	Occurrence of flames	NO	NO	-	horizontal [mm]			vertical [mm]			
					length	width	depth	length	width	depth	
					63	16	12	63	17	10	

Result of testing: Neither progressive smouldering ignition nor flaming ignition occurred.

END OF THE TEST CERTIFICATE