

Laboratory of Flammability Testing

90-520 Łódź, 118 Gdanska Str.
phone 48 42 2534435 (436), fax 48 42 2534490
e-mail: mszejna@iw.lodz.pl

TEST CERTIFICATE ON FLAMMABILITY TESTING OF UPHOLSTERY COMPOSITE**No 239 / BP / 17****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
30-415 Kraków

Subject of testing:

Upholstery composite:

- upholstery fabric named BENGAL, composition: 100% Polypropylene
- polyurethane foam T-3037, self-extinguished

Testing sample with the correct size, in appropriate state for testing,
supplied by the Orderer with its characteristic and without the Sampling Protocol.

INSTYTUT WŁÓKIENICTWA
LABORATORIUM
BADAŃ PALNOŚCI WYROBÓW
ul. Gdańska 118, 90-520 ŁÓDŹ

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:


Andrzej Kubacki, technician

Test Certificate authorized by:

Laboratorium Badań Palności WYROBÓW
KIEROWNIK

Sample received on: 29.08.2017

Test performed on: 11.09.2017


mgr Inż. Małgorzata Szejna

11.09.2017

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.

The Testing Laboratory accredited by the Polish Centre for Accreditation (PCA), No AB 029.

DETAILED TESTING RESULTSClimate conditions: temperature $(23 \pm 2) ^\circ\text{C}$; humidity $(50 \pm 5) \%$; time 24 hTesting conditions: temperature $22 ^\circ\text{C}$; humidity 51 %**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 named BENGAL, composition: 100% Polypropylene
- polyurethane foam T-3037, self-extinguished

Criteria		Cigarette			Remarks
		1	2	3	
Smouldering criteria	Unsafe escalating combustion	NO	NO	-	Maximum cigarette smouldering time: 17 minutes 49 seconds
	Test assembly consumed	NO	NO	-	
	Smoulders to extremities	NO	NO	-	
	Smoulders through thickness	NO	NO	-	Maximum upholstery composite destruction:
	Smoulders more than 1 hour	NO	NO	-	
	In final examination, presence of active smouldering	NO	NO	-	
Flaming criteria	Occurrence of flames	NO	NO	-	horizontal [mm]
					length width depth
					75 17 18 70 18 8

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

END OF THE TEST CERTIFICATE

**Laboratory of Chemical Testing
and Instrumental Analysis**

92-103 Łódź, 5/15 Brzezinska Str.

phone no. +48 42 6163130 (120, 128), fax +48 42 6163131

e-mail: jpiestrzeniewicz@iw.lodz.pl, labchem@iw.lodz.plŁódź 8th of September 2017

L – 400/2017

ŚWIADECTWO Z BADAŃ nr BCH 384/874/2017/A/1

- Name and address of the principal:** „TOPTEXTIL” Sp. z o.o.
ul. Wadowicka 12, 30 – 415 Kraków
- Name and description of tested sample:** sample of furniture upholstery fabric BENGAL
- Date of receiving sample for testing:** 29.08.2017
- Date of performance of testing:** 29.08. – 08.09.2017
- Sampling:** sample in a proper size, in a proper condition for research, supplied by the client

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/ 7	PN-EN ISO 105-B02:2014-11 Method 2	Device: Xenotest Alpha + <u>Light conditions:</u> - wavelength: 380-750 nm - filters: 7IR - BST temperature = 47 ± 3 °C - chamber temperature: 45 ± 3 °C - RH = 40% Estimation: Multilight chamber, light D65	≥ 6	≥ 5	≥ 4

²⁾ 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:

- 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.
- Test results refer only to the tested material.
- Neither of the parts of this test certificate can be copied without written permission of the Head of the Laboratory.
- Total number of pages of the test certificate 1.

Test authorized by:

Zdzisława Mrozińska, M.Sc. Eng.



Confirmed by:

LABORATORIUM BADAŃ CHEMICZNYCH
I ANALIZ INSTRUMENTALNYCH
KIEROWNIK TECHNICZNY
ds. Badań Chemicznych i Odporności Wybarwień

mgr inż. Katarzyna Chylewska

Number of copies: 3

The test certificate receive:

- Customer – 1 copy
- IW – Laboratory of Chemical Testing and Instrumental Analysis – 1 copy
- IW – Laboratory of Testing Textile Raw Materials and Fabrics – 1 copy

**Laboratory of Chemical Testing
and Instrumental Analysis**

92-103 Łódź, 5/15 Brzezinska Str.

phone no. +48 42 6163130 (120, 128), fax +48 42 6163131

e-mail: jpiestrzeniewicz@iw.lodz.pl, labchem@iw.lodz.plŁódź 8th of September 2017**L – 400/2017****ŚWIADECTWO Z BADAŃ nr BCH 384/874/2017/A**

- Name and address of the principal:** „TOPTEXTIL” Sp. z o.o.
ul. Wadowicka 12, 30 – 415 Kraków
- Name and description of tested sample:** sample of furniture upholstery fabric BENGAL
- Date of receiving sample for testing:** 29.08.2017
- Date of performance of testing:** 29.08. – 08.09.2017
- Sampling:** sample in a proper size, in a proper condition for research, supplied by the client

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:			<u>Acclimatization conditions:</u> temperature: (20,0±2)°C; relative humidity: (65,0±2)%; time: 4h;			
- Dry ¹⁾		PN-EN ISO 105-X12:2005	<u>Test conditions:</u> ambient temperature; rubbing pick: Ø 16±0,1mm; push: 9±0,2 N; degree of moisturising of rubbing to fabric: 100%	≥ 4-5	4	3-4
- weft	a/ 4-5					
- warp	a/ 4-5					
- Wet						
- weft	a/ 4-5			≥ 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:

- 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.
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Zdzisława Mrozińska, M.Sc. Eng.



Confirmed by:

LABORATORIUM BADAŃ CHEMICZNYCH
I ANALIZ INSTRUMENTALNYCH
KIEROWNIK TECHNICZNY
ds. Badań Chemicznych i Odporności Wybarwień
mgr inż. Katarzyna Chylewska

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AB 164

Laboratory of Testing

Textile Raw Materials and Fabrics

92-103 Łódź, 5/15 Brzezinska Str., phone 48 42 6163142, fax 48 42 6792638

90-520 Łódź, 118 Gdanska Str., phone 48 42 2534419, fax 48 42 2534490

e-mail: bwitkowska@iw.lodz.pl, jandrysiak@iw.lodz.pl,

LABORATORY OF TESTING TEXTILE RAW MATERIALS AND FABRICS

Testing Laboratory accredited by the Polish Centre for Accreditation

TEST CERTIFICATE NO. BM 4.4.1.3 / 2017 / B / A

1. **Test ordered by:** „TOPTEXTIL” Sp. z o.o., 12 Wadowicka Street; 30-415 Kraków
2. **Name and description of tested material:** the sample: **the upholstery fabric BENGAL, declared raw material composition: 100 % Polypropylen**
3. **Date of receiving material for testing:** 2017-08-22
4. **Date of test performance:** 2017-09-01÷05
5. **Samples taken by:** correct sample size in appropriate state for testing, taken by the Client and delivered without the Sampling Protocol
6. **Tests carried out according to:** methods presenting in testing table

Results of Laboratory Tests

see page 2/2

Test performed by: Elżbieta Olczak

1. *Test results refer only to the tested material.*
2. *Neither of the parts of this Test Certificate can be copied without written permission of the Head of the Laboratory; it can be copied only as a whole document.*
3. *Test Certificate presents test results included within accreditation field of testing.*
4. *Test results not included in accreditation scope, if occur, are marked with *) in the test results table, at the parameter name.*
5. *Measurement uncertainty, if it is specified, has been determined according to the recommendations presented in document EA-4/16. Presented values of uncertainty constitute expanded uncertainty at 95% confidence level and coverage factor $k = 2$.*

Certificate date: 2017-09-11

Number of Certificate copies: 2

Test Certificate handed to:

- 1) TOPTEXTIL Sp. z o.o., Kraków – 1 copy
- 2) Laboratory of Testing Textile Raw Materials and Fabrics - 1 copy.

Certificate prepared by:

Patrycja Bąk MSc Eng

Person authorizing the Test Certificate:

Name and surname:

Function:

Signature

Zastępca Kierownika
Laboratorium Badań Surowców
i Wyrobów Włókienniczych
Instytut Włókiennictwa

mgr inż. Jerzy Andrysiak

-verte-

INSTYTUT WŁÓKIENICTWA
Laboratorium Badań Surowców
i Wyrobów Włókienniczych
92-103 Łódź, ul. Brzezinska 5/15

TEST CERTIFICATE NO. BM 4.4.1.3 / 2017 / B / A

Parameter	Value	Remarks
Abrasion resistance, number of rubs	color change after 3 000 rubs, grade of grey scale	PN-EN ISO 12947-2:2017-02 + PN-EN 14465:2005+A1:2007, Annex A the conditioned sample, 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. <u>Criterion of destruction of the testing specimens in accordance with that standard:</u> three threads completely destroyed
	1 specimen	
	2 specimen	
	3 specimen	
	4 specimen	
	Total abrasion resistance (the lowest individual result)	
	4 - 5	
	30 000	
	30 000	
	30 000	
	35 000	
	30 000	

Evaluation:

according to PN-EN 14465:2005 + A1:2007: A category: number of rubs $\geq 35\ 000$ rubs,

B category: number of rubs: $12\ 000 \div 30\ 000$, C category: number of rubs: $4\ 000 \div 10\ 000$

The end of Test Certificate

Person authorizing the Test Certificate

Zastępca Kierownika
Laboratorium Badań Surowców
i Wyrobów Włókienniczych
Instytut Włókiennictwa
mgr inż. Jerzy Andrysiak



AB 164

Laboratory of Testing

Textile Raw Materials and Fabrics

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LABORATORY OF TESTING TEXTILE RAW MATERIALS AND FABRICS

Testing Laboratory accredited by the Polish Centre for Accreditation

TEST CERTIFICATE NO. BM 4.4.1.2 / 2017 / B / A

1. **Test ordered by:** „TOPTEXTIL” Sp. z o.o., 12 Wadowicka Street; 30-415 Kraków
2. **Name and description of tested material:** the sample: **the upholstery fabric BENGAL, declared raw material composition: 100 % Polypropylen**
3. **Date of receiving material for testing:** 2017-08-22
4. **Date of test performance:** 2017-09-01
5. **Samples taken by:** correct sample size in appropriate state for testing, taken by the Client and delivered without the Sampling Protocol
6. **Tests carried out according to:** methods presenting in testing table

Results of Laboratory Tests

see page 2/2

Test performed by: Elżbieta Olczak

1. *Test results refer only to the tested material.*
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Certificate date: 2017-09-11

Number of Certificate copies: 2

Test Certificate handed to:

- 1) TOPTEXTIL Sp. z o.o., Kraków – 1 copy
- 2) Laboratory of Testing Textile Raw Materials and Fabrics - 1 copy.

Certificate prepared by:

Patrycja Bąk MSc Eng

Person authorizing the Test Certificate:

Name and surname:

Function:

Signature

Zastępca Kierownika
Laboratorium Badań Surowców
i Wyrobów Włókienniczych
Instytut Włókiennictwa

mgr inż. Jerzy Andrysiak

INSTYTUT WŁÓKIENICTWA
Laboratorium Badań Surowców
i Wyrobów Włókienniczych
92-103 Łódź, ul. Brzezinska 5/15

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TEST CERTIFICATE NO. BM 4.4.1.2 / 2017 / B / A

Parameter	Value	Remarks
Propensity to surface fuzzing and pilling, grade	the number of rubs 500	PN-EN ISO 12945-2:2002 (modified Martindale method) the conditioned sample, the abradant: the standard woolen fabric; mass of weight: 415 ± 2 g;
	1 000	
	2 000	
	4 Slight surface fuzzing and partially 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

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Laboratorium Badań Surowców
i Wytrobów Włókienniczych
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TEST CERTIFICATE NO. BM 4.4.1.1 / 2017 / B / A

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2. **Name and description of tested material:** the sample: **the upholstery fabric BENGAL, declared raw material composition: 100 % Polypropylen**
3. **Date of receiving material for testing:** 2017-08-22
4. **Date of test performance:** 2017-09-08
5. **Samples taken by:** correct sample size in appropriate state for testing, taken by the Client and delivered without the Sampling Protocol
6. **Tests carried out according to:** methods presenting in testing table

Results of Laboratory Tests

see page 2/2

Test performed by: Elżbieta Olczak

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Test Certificate handed to:

- 1) TOPTEXTIL Sp. z o.o., Kraków – 1 copy
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Certificate prepared by:

Patrycja Bąk MSc Eng

Person authorizing the Test Certificate:

Name and surname:

Function:

Signature

Zastępca Kierownika
Laboratorium Badań Surowców
i Wyrobów Włókienniczych
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TEST CERTIFICATE NO. BM 4.4.1.1 / 2017 / B / A

Parameter	Value	Remarks
Seam slippage resistance, mm: <u>Warp</u> The mean value of seam slippage resistance for warp direction, mm - individual results, mm	5 5; 5; 5; 6; 5	PN-EN ISO 13936-2:2005 the conditioned sample, tensile machine: 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 test specimens: 5
<u>Weft</u> The mean value of seam slippage resistance for weft direction, mm - individual results, mm	5 5; 6; 5; 5,5; 5,5	
<u>Evaluation:</u> 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

Zastępca Kierownika
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 i Wyrobów Włókienniczych
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