

## Laboratory of Flammability Testing

90-520 Lodz, 118 Gdanska Str.  
phone 48 42 2534435 (436), fax 48 42 2534490  
e-mail: [mszeina@iw.lodz.pl](mailto:mszeina@iw.lodz.pl)

### TEST CERTIFICATE ON FLAMMABILITY TESTING OF UPHOLSTERY COMPOSITE

No 151 / 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 BOMBAJ  
composition : 100% Polyester  
- T-3037 SG polyurethane foam, self-extinguish  
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	<b>Neither progressive smouldering ignition nor flaming ignition occurred.</b>

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

Sample received on: 07.06.2017

Test performed on: 03.07.2017

Test Certificate authorized by:

Laboratorium Badań Palności Wyrobów  
KIEROWNIK

  
mgr Inż. Małgorzata Szejna

05.07.2017

#### 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.

**DETAILED TESTING RESULTS**

Climate conditions: temperature (23 ± 2) °C; humidity (50 ± 5) %; time 24 h  
 Testing conditions: temperature 22 °C; humidity 60 %

**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 BOMBAJ
- composition: 100% Polyester
- T-3037 SG polyurethane foam, self-extinguish

Criteria		Cigarette			Remarks					
		1	2	3						
Smouldering criteria	Unsafe escalating combustion	NO	NO	-	Maximum cigarette smouldering time:  17 minutes 17 seconds					
	Test assembly consumed	NO	NO	-						
	Smoulders to extremities	NO	NO	-						
	Smoulders through thickness	NO	NO	-						
	Smoulders more than 1 hour	NO	NO	-						
	In final examination, presence of active smouldering	NO	NO	-	Maximum upholstery composite destruction:					
Flaming criteria	Occurrence of flames	NO	NO	-						
					length	width	depth	length	width	depth
					72	13	10	70	14	8

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

END OF THE TEST CERTIFICATE



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## Laboratory of Testing

### Textile Raw Materials and Fabrics

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

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

e-mail: [bwitkowska@iw.lodz.pl](mailto:bwitkowska@iw.lodz.pl), [jandrysiak@iw.lodz.pl](mailto:jandrysiak@iw.lodz.pl),

## LABORATORY OF TESTING TEXTILE RAW MATERIALS AND FABRICS Testing Laboratory accredited by the Polish Centre for Accreditation

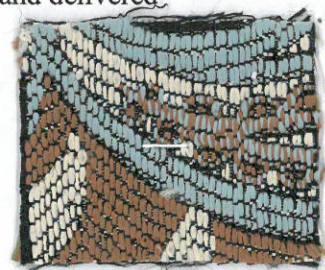
### TEST CERTIFICATE NO. BM 4.2.4.4 / 2017 / G / A

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 BOMBAJ, declared raw material composition: 100 % Polyester**
3. **Date of receiving material for testing:** 2017-06-07
4. **Date of test performance:** 2017-06-23÷07-07
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

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**Test performed by:** Ewa Gontarska, Krystyna Wierus



1. *Test results refer only to the tested material.*
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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:** 2017-07-13

**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 Merownika  
Laboratorium Badani Surowców  
i Włókien Włókienniczych  
Instytut Włókiennictwa

mgr inż. Jerzy Andrysiak

-verte-

**TEST CERTIFICATE NO. BM 4.2.4.4 / 2017 / G / A**

Parameter	Value	Remarks
Colour fastness to artificial light, grade		PN-EN ISO 105-B02:2014-11 Method 2 device type: Xenotest Alpha HE, exposure conditions according to this European Standard paragraph 7 table 2: conditions of temperate zone - exposure cycle A1, <b>Assesment:</b> Visual assesment by comparison with blue wool light fastness references: from <b>1</b> (very low colour fastness) to <b>8</b> (very high colour fastness)
- green colour	<b>6</b>	
- black colour	<b>6 - 7</b>	
- blue colour	<b>6</b>	
- brown colour	<b>6</b>	
<u>Evaluation</u> according to PN-EN 14465:2005+A1:2007: <b>A category: grade <math>\geq</math> 6;    B category: grade <math>\geq</math> 5;    C category: grade <math>\geq</math> 4;</b>		

\_\_\_\_\_ **The end of Test Certificate** \_\_\_\_\_

**Person authorizing the Test Certificate**

Name and surname: Zastępca Kierownika  
 Function: Laboratorium Badań Surowców  
 i Wyrobów Włókienniczych  
 Instytut Włókiennictwa  
 Signature: mgr inż. Jerzy Andrysiak

**Laboratory of Chemical Testing  
and Instrumental Analysis**

92-103 Lodz, 5/15 Brzezinska Str.  
phone no. +48 42 6163130 (120, 128), fax +48 42 6163131  
e-mail: [piestrleniewicz@iw.lodz.pl](mailto:piestrleniewicz@iw.lodz.pl), [labchem@iw.lodz.pl](mailto:labchem@iw.lodz.pl)

Lódź 14<sup>th</sup> of July 2017

L – 263/2017

**ŚWIADECTWO Z BADAŃ nr BCH 252/563/2017/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 No 4 - furniture fabric BOMBAJ
- Date of receiving sample for testing:** 09.07.2017
- Date of performance of testing:** 12.07. – 13.07.2017
- 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 <sup>1)</sup>		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%			
weft	a/ 4-5			≥ 4-5	4	3-4
warp	a/ 4-5					
- Wet						
weft	a/ 4-5			≥ 3-4	3	2-3
warp	a/ 4-5					

<sup>1)</sup> 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](http://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.

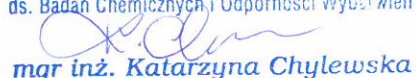
Test authorized by:

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 Testing

### Textile Raw Materials and Fabrics

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

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

e-mail: [bwitkowska@iw.lodz.pl](mailto:bwitkowska@iw.lodz.pl), [jandrysiak@iw.lodz.pl](mailto: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 4.2.4.3 / 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 BOMBAJ, declared raw material composition: 100 % Polyester**
3. **Date of receiving material for testing:** 2017-06-07
4. **Date of test performance:** 2017-06-20÷23
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

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Test performed by: Elżbieta Olczak



1. *Test results refer only to the tested material.*
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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:** 2017-07-13

**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

**TEST CERTIFICATE NO. BM 4.2.4.3 / 2017 / B / A**

Parameter	Value	Remarks	
Abrasion resistance, number of rubs	color change after 3 000 rubs, grade of grey scale	4 - 5	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	16 000	
	2 specimen	14 000	
	3 specimen	14 000	
	4 specimen	16 000	
	5 specimen	16 000	
	6 specimen	12 000	
	7 specimen	16 000	
	8 specimen	18 000	
<b>Total abrasion resistance</b> (the lowest individual result)	<b>12 000</b>		

**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 ÷ 30 000,** C category: number of rubs: 4 000 ÷ 10 000

\_\_\_\_\_ **The end of Test Certificate** \_\_\_\_\_

**Person authorizing the Test Certificate**

Name and surname:

Function:

Signature

Zastępca Kierownika  
Laboratorium Badań Surowców  
i Wytrobów Włókienniczych  
Instytut Włókiennictwa

mgr inż. Jerzy Andrysiak



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## Laboratory of Testing

### Textile Raw Materials and Fabrics

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

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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 BOMBAJ, declared raw material composition: 100 % Polyester**
3. **Date of receiving material for testing:** 2017-06-07
4. **Date of test performance:** 2017-07-11
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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**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



**TEST CERTIFICATE NO. BM 4.2.4.1 / 2017 / B / A**

Parameter	Value	Remarks
<b>Seam slippage resistance, mm:</b> <u>Warp</u> <b>The mean value of seam slippage resistance for warp direction, mm</b> - individual results, mm	4  3; 3,5; 4; 4; 3,5	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> <b>The mean value of seam slippage resistance for weft direction, mm</b> - individual results, mm	4  4,5; 4; 5; 4; 3,5	
<u>Evaluation:</u> according to PN-EN 14465:2005 + A1:2007 requirements level: <b>A category: ≤ 4 mm;</b> B category: ≤ 6 mm; C category: ≤ 8 mm		

\_\_\_\_\_ **The end of Test Certificate** \_\_\_\_\_

**Person authorizing the Test Certificate**

Name and surname:

Function:

Signature

  
 Zastępca Pierownika  
 Laboratorium Badań Surowców  
 i Wytrobów Wysockienniczych  
 Instytut Włókiennictwa

mgr inż. Jerzy Andrysiak



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**Laboratory of Testing**

**Textile Raw Materials and Fabrics**

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

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

e-mail: [bwitkowska@iw.lodz.pl](mailto:bwitkowska@iw.lodz.pl), [jandrzyak@iw.lodz.pl](mailto:jandrzyak@iw.lodz.pl)

**LABORATORY OF TESTING TEXTILE RAW MATERIALS AND FABRICS**  
**Testing Laboratory accredited by the Polish Centre for Accreditation**

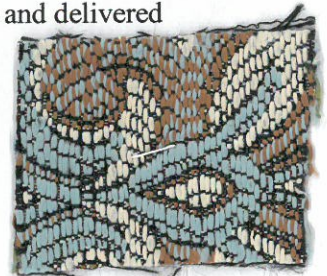
**TEST CERTIFICATE NO. BM 4.2.4.2 / 2017 / B / A**

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 BOMBAJ, declared raw material composition: 100 % Polyester**
3. **Date of receiving material for testing:** 2017-06-07
4. **Date of test performance:** 2017-07-03
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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**Number of Certificate copies:** 2

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- 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 Surow  
i Włóknieniczych  
Instytut Włókiennictwa

mgr inż. Jerzy Andrzyak

INSTYTUT WŁÓKIENICTWA  
Laboratorium Badań Surow  
i Włóknieniczych  
92-103 Łódź, ul. Brzezinska 5/15

**TEST CERTIFICATE NO. BM 4.2.4.2 / 2017 / B / A**

Parameter	Value	Remarks
Propensity to surface fuzzing and pilling, grade	<i>the number of rubs</i> 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	
	<b>No change</b>	
Evaluation according to PN-EN 14465:2005+A1:2007: <b>A category: grade ≥ 4 – 5;</b> B category: grade 4; C category: grade 3 – 4; D category: grade 3		

\_\_\_\_\_ **The end of Test Certificate** \_\_\_\_\_

**Person authorizing the Test Certificate**

Name and surname:

Function:

Signature

Zastępca Kierownika  
Laboratorium Badań Surowców  
i Wytrobów Włókienniczych  
Instytut Włókiennictwa

mgr inż. Jerzy Andrysiak