

Laboratory of Flammability Testing

The Łukasiewicz Research Network - Textile Research Institute,

92-103 Łódź, 5/15 Brzezinska Str.

Laboratory: 90-520 Łódź, 118 Gdańska Str., phone 48 42 2534435 (436), fax 48 42 2534490

e-mail: mszejna@iw.lodz.pl



AB 029

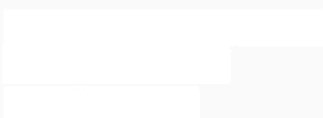
TEST CERTIFICATE ON FLAMMABILITY TESTING OF UPHOLSTERY COMPOSITE

No539 / BP / 19

Test method:

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

Orderer*:



Subject of testing*:

Upholstery composite:

- upholstery fabric named UTTARIO VELVET, 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.

Sieć Badawcza Łukasiewicz-
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:

Kostanek

Krzysztof Kostanek Ph.D.

Test Certificate authorized by

Laboratorium Badań Palności WYROBÓW
KIEROWNIK

Sample received on: 04.11.2019

Test performed on: 11.12.2019

Test Certificate issued on: 11.12.2019

mszejna
mgr inż. Małgorzata Szejna

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.
5. *Data provided by the Customer.

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°C ; humidity 31 %**Preparation of test samples:**

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

Upholstery composite characteristic:

Upholstery composite:

- upholstery fabric named UTTARIO VELVET, 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: 14 minutes 32 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]			vertical [mm]		
					length	width	depth	length	width	depth
					70	15	11	70	17	6

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

END OF THE TEST CERTIFICATE

Laboratory of Chemical Testing and Instrumental Analysis

The Łukasiewicz Research Network – Textile Research Institute
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 e-mail: jpiestrzeniewicz@iw.lodz.pl, alisiak@iw.lodz.pl

Łódź, 16th December 2019

L-527/2019

TEST CERTIFICATE No. BCH 474/1210/2019/A

1. Name and address of the principal ^{X)}

2. Subject of study ^{X)}:

sample 1 – furniture upholstery product UTTARIO VELVET, declared
 material composition: 100 % polyester

3. Date of receiving sample for testing:

31st October 2019

4. Date of the tests conducting:

11th December - 12th December 2019

5. Sampling:

sample in a proper size, in a proper condition for research, supplied by
 the customer

RESULTS OF THE TESTS

Tested feature	Result of the test [degree]	Reference document	Technical specifications	Level of requirements for categories according to PN- EN 14465:2005 + A1:2007		
				A	B	C
Colour fastness to:			Acclimatization conditions:			
- <i>dry rubbing</i> : ¹⁾			- temperature: 20 ± 2 °C			
longitudinal direction	a/ 4-5	PN-EN ISO 105- X12:2016-08	- relative humidity: 65 ± 4 %			
cross direction	a/ 4-5		- time of acclimatisation: 4 h			
- <i>wet rubbing</i> : ¹⁾			Test conditions:			
longitudinal direction	a/ 4-5		- ambient temperature and humidity	≥ 4-5	≥ 4	≥ 3-4
cross direction	a/ 4-5		- rubbing pick: Ø 16 ± 0,1 mm	≥ 3-4	≥ 3	≥ 2-3
			- push: 9 ± 0,2 N			
			- degree of moisturising of the rubbing fabric: 95-100 %			

¹⁾ colour fastness according to "Grey scale", indicator "5" means – no change in colour and in staining adjacent fabric, indicator "1" means – big change in colour

a/ staining - the cotton rubbing fabric

Remarks:

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.
3. ^{X)} Data provided by the principal/customer.
^{Y)} The decision-making principle in the event that the principal requires a statement of compliance – in accordance with the Principle of Acceptance described in Procedure No. 7.1:
 - **acceptance** (compliant) – the results are within the tolerance limit. The risk of incorrect acceptance is up to 50% in the case of results close to the tolerance limit;
 - **rejection** (incompatible) – the results obtained are outside the tolerance limit. The risk of incorrect rejection is 50% in the case of results close to the tolerance limit.
- ^{Z)} The decision-making principle specified by the principal/customer.
4. Total number of pages of the test certificate: 2.

Tests authorized by:

LABORATORIUM BADAŃ CHEMICZNYCH
I ANALIZ INSTRUMENTALNYCH
Z-ca Kierownika Technicznego
[Signature]
mgr inż. Zdzisława Mrozińska

Confirmed by:

LABORATORIUM BADAŃ CHEMICZNYCH
I ANALIZ INSTRUMENTALNYCH
ZASTĘPCA KIEROWNIKA
[Signature]
mgr inż. Agnieszka Lisiak-Kucińska

Number of copies: 3

The test certificate receive:

- Customer - 1 copy
- The ŁUKASIEWICZ Research Network – Textile Research Institute – BM - 1 copy
- The ŁUKASIEWICZ Research Network – Textile Research Institute – BCH - 1 copy

- THE END -

Laboratory of Testing

Textile Raw Materials and Fabrics

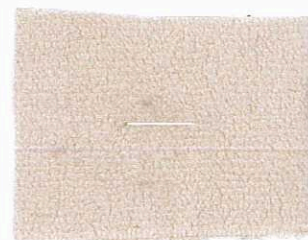
The Łukasiewicz Research Network – Textile Research Institute,
92-103 Łódź, 5/15 Brzezinska Str., phone 48 42 6163142, fax 48 42 6792638
90-520 Łódź, 118 Gdanska Str., phone 48 42 2534419, fax 48 42 2534490
e-mail: bwitkowska@iw.lodz.pl, jandrysiak@iw.lodz.pl

TEST CERTIFICATE NO. BM 723.1 / 2019 / B

2. **Name and description of tested material:** the sample: the upholstery product **UTTARIO VELVET**, declared raw material composition: 100% Polyester
3. **Date of receiving material for testing:** 2019-10-28
4. **Date of test performance:** 2019-11-19
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. *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: 2019-12-12

Number of Certificate copies: 2

Test Certificate handed to:

- 2) Laboratory of Testing Textile Raw Materials and Fabrics - 1 copy.

Certificate prepared by:

Patrycja Bąk

Sieć Badawcza Łukasiewicz-
INSTYTUT WŁÓKIENNICTWA
Laboratorium Badań Surowców
i Wyrobów Włókienniczych
92-103 Łódź, ul. Brzezinska 5/15

Person authorizing the Test Certificate:

Name and surname:

Function:

Signature:

Zastępca Kierownika
Laboratorium Badań Surowców
i Wyrobów Włókienniczych

mgr inż. Jerzy Andrysiak

-verte-

TEST CERTIFICATE NO. BM 723.1 / 2019 / B

Parameter	Value	Remarks
Seam slippage resistance, mm: <u>Longitudinal direction</u> The mean value of resistance to perforation in the seam for longitudinal direction, mm - individual results, mm <u>Cross direction</u> The mean value of resistance to perforation in the seam for cross direction, mm - individual results, mm	3 ± 0 3; 3; 2,5; 2,5; 3 3 ± 0 3; 3; 3,5; 3; 4	PN-EN ISO 13936-2:2005 the conditioned sample 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: $32 \pm 2/100$ mm rate of extension: 50 mm/min. number of test specimens: 5

_____ The end of Test Certificate _____

Person authorizing the Test Certificate

Zastępca Kierownika
 Laboratorium Badań Surowców
 i WYROBÓW Włókienniczych

mgr inż. Jerzy Andrysiak



AB 164

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

TEST CERTIFICATE NO. BM 723.2 / 2019 / B / A

- 2. Name and description of tested material:** the sample: the upholstery product UTTARIO VELVET, declared raw material composition: 100% Polyester
- 3. Date of receiving material for testing:** 2019-10-28
- 4. Date of test performance:** 2019-11-15
- 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

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: 2019-12-12

Number of Certificate copies: 2

Test Certificate handed to:

- 1)
- 2) Laboratory of Testing Textile Raw Materials and Fabrics - 1 copy

Certificate prepared by:

Patrycja Bąk

Sieć Badawcza Łukasiewicz-
INSTYTUT WŁÓKIENNICTWA
Laboratorium Badań Surowców
i Wyrobów Włókienniczych
92-103 Łódź, ul. Brzezinska 5/15

Person authorizing the Test Certificate:

Name and surname:

Function:

Signature: Zastępca Kierownika
Laboratorium Badań Surowców
i Wyrobów Włókienniczych

mgr inż. Jerzy Andrysiak

-verte-

TEST CERTIFICATE NO. BM 723.2 / 2019 / 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		4 – 5
	2 000		4 – 5 Slight surface fuzzing
	5 000		4 - 5
<u>Evaluation</u> 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:


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



AB 164

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

TEST CERTIFICATE NO. BM 723.3 / 2019 / B / A

- 2. Name and description of tested material:** the sample: the upholstery product UTTARIO VELVET, declared raw material composition: 100% Polyester
- 3. Date of receiving material for testing:** 2019-10-28
- 4. Date of test performance:** 2019-11-05÷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

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: 2019-12-12

Number of Certificate copies: 2

Test Certificate handed to:

- 1)
- 2) Laboratory of Testing Textile Raw Materials and Fabrics - 1 copy

Certificate prepared by:

Patrycja Bąk

Sieć Badawcza Łukasiewicz-
INSTYTUT WŁÓKIENNICTWA
Laboratorium Badań Surowców
i Wyrobów Włókienniczych
92-103 Łódź, ul. Brzezinska 5/15

Person authorizing the Test Certificate:

Name and surname:

Function:

Signature: Zastępca Kierownika
Laboratorium Badań Surowców
i Wyrobów Włókienniczych

mgr inż. Jerzy Andrysiak

-verte-

TEST CERTIFICATE NO. BM 723.3 / 2019 / 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 woolen fabric, the nominal pressure used in the test: 12 kPa, magnification factor in the magnifying device: 8. Criterion of <u>destruction of the testing specimens in accordance with that standard:</u> cut pile fabric – pile spots of 5 mm ² are fully worn off, without any damage to rows / columns threads in knitted fabric.
	1 specimen	45 000	
	2 specimen	45 000	
	3 specimen	50 000	
	4 specimen	50 000	
	Total abrasion resistance (the lowest individual result)	45 000	
<u>Evaluation:</u> according to PN-EN 14465:2005 + A1:2007: A category: number of rubs ≥ 45 000 rubs, B category: number of rubs: 25 000 ÷ 40 000, C category: number of rubs: 10 000 ÷ 20 000			

_____ The end of Test Certificate _____

Person authorizing the Test Certificate:

Zastępca Kierownika
Laboratorium Badań Surowców
i Włóknienniczych
mgr inż. Jerzy Andrysiak

Laboratory of Testing

Textile Raw Materials and Fabrics

The Łukasiewicz Research Network – Textile Research Institute,
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

TEST CERTIFICATE NO. BM 723.4 / 2019 / B

2. **Name and description of tested material:** the sample: : the upholstery product UTUARIO VELVET, declared raw material composition: 100% Polyester
3. **Date of receiving material for testing:** 2019-10-28
4. **Date of test performance:** 2019-12-09
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: Elzbieta 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. *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: 2019-12-12

Number of Certificate copies: 2

Test Certificate handed to:

- 2) Laboratory of Testing Textile Raw Materials and Fabrics - 1 copy.

Certificate prepared by:

Patrycja Bąk

Sieć Badawcza Łukasiewicz-
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Laboratorium Badań Surowców
i Wytwarzania Włókien
92-103 Łódź, ul. Brzezinska 5/15

Person authorizing the Test Certificate:

Name and surname:

Function:

Signature:

Zastępca Kierownika
Laboratorium Badań Surowców
i Wytwarzania Włókien

mgr inż. Jerzy Andrysiak

TEST CERTIFICATE NO. BM 723.4 / 2019 / B

Parameter	Result	Test method
Resistance to drawing out the threads for longitudinal direction, degree	3	PN-79/P-04664 conditioned sample, device for testing resistance to drawing out the threads: Shirley ICI Mace snag tester, England, number of the template used for sewing: 2, number of the roller revolutions: 300, number of tested specimens: 2 for each direction
Resistance to drawing out the threads for cross direction, degree	3 – 4	Assessment according to photographic standard: degree 5: very good resistance to drawing out the threads (without puffs), degree 4: good resistance to drawing out the threads, degree 3: sufficient resistance to drawing out the threads, degree 2: insufficient resistance to drawing out the threads, degree 1: very poor resistance to drawing out the threads.

The end of Test Certificate

Person authorizing the Test Certificate

Zastępca Kierownika
Laboratorium Badań Surowców
i Wyrobów Włóknenniczych

mgr inż. Jerzy Andrysiak