



AB 164

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

TEST CERTIFICATE NO. BM 205.1.1 / 2019 / B / A

declared raw material composition: 100% Polyester

3. **Date of receiving material for testing:** 2019-03-28
4. **Date of test performance:** 2019-04-04
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: Iwona Rybak

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: 2019-04-26

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

Person authorizing the Test Certificate:

Name and surname:

Function:

Signature: Zastępca Kierownika
Laboratorium Badań Surowców
i Wytrobów Włókienniczych

mgr inż. Jerzy Andrysiak

Sieć Badawcza Łukasiewicz-
INSTYTUT WŁÓKIENNICZWA
Laboratorium Badań Surowców
i Wytrobów Włókienniczych
92-103 Łódź ul. Brzezinska 5/15

-verte-

TEST CERTIFICATE NO. BM 205.1.1 / 2019 / B / A

Parameter		Value	Remarks
Resistance to surface wetting (Spray test), degree	1 specimen	5 No sticking or wetting of the specimen face	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	5 No sticking or wetting of the specimen face	
	3 specimen	5 No sticking or wetting of the specimen face	

_____ 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 205.1.2 / 2019 / B / A

- 2. Name and description of tested material:** the sample: **the upholstery product VENUS VELVET**,
declared raw material composition: 100% Polyester
- 3. Date of receiving material for testing:** 2019-03-28
- 4. Date of test performance:** 2019-04-18
- 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.*
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Certificate date: 2019-04-26

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

Person authorizing the Test Certificate:

Name and surname:

Function:

Signature:

Zastępca Kierownika
Laboratorium Badań Surowców
i Wytrobów Włókienniczych

mgr inż. Jerzy Andrysiak

-verte-

Sieć Badawcza Łukasiewicz-
INSTYTUT WŁÓKIENNICZTWA
Laboratorium Badań Surowców
i Wytrobów Włókienniczych
92-103 Łódź, 5/15 Brzezinska 5/15

TEST CERTIFICATE NO. BM 205.1.2 / 2019 / B / A

Parameter		Value	Remarks
Propensity to surface fuzzing and pilling, grade	the number of rubs 500	5	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	
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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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 205.1.3 / 2019 / B / A

declared raw material composition: 100% Polyester

3. **Date of receiving material for testing:** 2019-03-28
4. **Date of test performance:** 2019-04-17÷25
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.*
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Certificate date: 2019-04-26

Number of Certificate copies: 2

Test Certificate handed to:

- 1)
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Certificate prepared by:

Patrycja Bąk

Person authorizing the Test Certificate:

Name and surname:

Function:

Signature:

Zastępca Kierownika
Laboratorium Badań Surowców
i Włóknienniczych

mgr inż. Jerzy Andrysiak

-verte-

Sieć Badawcza Łukasiewicz-
INSTYTUT WŁÓKIENICTWA
Laboratorium Badań Surowców
i Włóknienniczych
92-103 Łódź, ul. Brzezinska 5/15

TEST CERTIFICATE NO. BM 205.1.3 / 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. <u>Criterion of destruction of the testing specimens in accordance with that standard:</u> cut pile fabric – pile spot of surface of 5 mm ² are fully worn off, without any damage to the rows and columns in knitted fabric.
	1 specimen	90 000	
	2 specimen	100 000	
	3 specimen	100 000	
	4 specimen	100 000	
	Total abrasion resistance (the lowest individual result)	90 000	
Evaluation: 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 Wytrobów Włókienniczych

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 205.1.4 / 2019 / B

2. **Name and description of tested material:** the sample: **the upholstery product VENUS VELVET**,
declared raw material composition: 100% Polyester
3. **Date of receiving material for testing:** 2019-03-28
4. **Date of test performance:** 2019-04-10
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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in document EA-4/16. Presented values of uncertainty constitute expanded uncertainty at 95% confidence level
and coverage factor $k = 2$.*

Certificate date: 2019-04-26

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

Person authorizing the Test Certificate:

Name and surname:

Function:

Signature:

Zastępca Kierownika
Laboratorium Badań Surowców
i Wyróbów Włókienniczych

mgr inż. Jerzy Andrysiak

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

-verte-

TEST CERTIFICATE NO. BM 205.1.4 / 2019 / B

Parameter	Value	Remarks
The mean of bursting strength, kPa	624 ± 13	PN-EN ISO 13938-1:2002 (hydraulic method) the conditioned sample, test area: 50 cm ² , time at burst of test specimen: (20 ± 5) s
The mean of height at burst, mm	28 ± 0	

_____ **The end of Test Certificate** _____

Person authorizing the Test Certificate

Zastępca Kierownika
Laboratorium Badań Surowców
i Wyrobów Włókienniczych

mgr inż. Jerzy Andrzyśiak

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 205.1.5 / 2019 / B

2. **Name and description of tested material:** the sample: **the upholstery product VENUS VELVET**,
declared raw material composition: 100% Polyester
3. **Date of receiving material for testing:** 2019-03-28
4. **Date of test performance:** 2019-04-24
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 date: 2019-04-26

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

Person authorizing the Test Certificate:

Name and surname:

Function:

Signature:

Zastępca Kierownika
Laboratorium Badań Surowców
i Włóknienniczych

mgr inż. Jerzy Andrysiak

Sieć Badawcza Łukasiewicz-
INSTYTUT WŁÓKNIENICTWA
Laboratorium Badań Surowców
i Włóknienniczych
92-103 Łódź, ul. Brzezinska 5/15

-verte-

TEST CERTIFICATE NO. BM 205.1.5 / 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	2 ± 0 2; 2; 2; 2,5; 2 2 ± 0 1,5; 2; 2; 2; 2	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 Białej Surowców
 i Wyrobów Włókienniczych

mgr inż. Jerzy Andrysiak

**Laboratory of Chemical Testing
 and Instrumental Analysis**

The Łukasiewicz Research Network – Textile Research Institute,
 92-103 Łódź, 5/15 Brzezinska Str.
 phone no. +48 42 6163130 (128), fax +48 42 6163131
 e-mail: jpiestrzeniewicz@iw.lodz.pl, alisiak@iw.lodz.pl

AB 077

Łódź, 25th of April 2019

L - 147/2019

TEST CERTIFICATE no BCH 138/351/2019/A

- Name and address of the principal:**
- Name and description of tested sample:** Sample – furniture upholstery product VENUS VELVET
- Date of receiving sample for testing:** 01.04.2019
- Date of performance of testing:** 12.04.2019
- Sampling:** sample in a proper size, in a proper condition for research, supplied by the Client

RESULTS OF THE TESTS

Tested feature	Results of the test [degree] ¹⁾	Reference document	Technical specifications	Level of requirements for categories according to PN-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		PN-EN ISO 105-X12:2016-08	<u>Test conditions:</u> ambient temperature; rubbing pick: Ø 16±0,1mm; push: 9±0,2 N; degree of moisturising of the rubbing cotton fabric: 100%	≥ 4-5	4	3-4
longitudinal direction	a/ 5					
cross direction	a/ 5					
- Wet				≥ 3-4	3	2-3
longitudinal direction	a/ 4-5					
cross direction	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/ the staining of the cotton rubbing fabric

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:

Confirmed by:

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

 mgr inż. Katarzyna Chylewska

LABORATORIUM BADAŃ CHEMICZNYCH
 I ANALIZ INSTRUMENTALNYCH
 ZASTĘPCA KIEROWNIKA

 mgr inż. Agnieszka Lisiak-Kucińska

Number of copies: 4

The test certificate receive:

- Client – 2 copies
- The Łukasiewicz Research Network – Textile Research Institute – BM – 1 copy
- The Łukasiewicz Research Network – Textile Research Institute – BCH – 1 copy

**Laboratory of Chemical Testing
 and Instrumental Analysis**

The Łukasiewicz Research Network – Textile Research Institute,
 92-103 Łódź, 5/15 Brzezinska Str.
 phone no. +48 42 6163130 (128), fax +48 42 6163131
 e-mail: jpiestrzeniewicz@iw.lodz.pl, alisiak@iw.lodz.pl



AB 077

Łódź, 25th of April 2019

L - 147/2019

TEST CERTIFICATE no BCH 138/351/2019/A/1

- Name and address of the principal:**
- Name and description of tested sample:** Sample – furniture upholstery product VENUS VELVET
- Date of receiving sample for testing:** 01.04.2019
- Date of performance of testing:** 04.04 – 25.04.2019
- Sampling:** sample in a proper size, in a proper condition for research, supplied by the Client

RESULTS OF THE TESTS

Tested feature	Results of the test [degree] ¹⁾	Reference document	Technical specifications	Level of requirements for categories according to PN-EN 14465:2005 + A1:2007		
				A	B	C
Colourfastness to: - artificial light	a/ 4	PN-EN ISO 105-B02:2014-11 Method 2	Device: Xenotest Alpha + Light conditions: A1 Radiation measurement in the range (300-400) nm Sample rotation was not used	≥ 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:

- 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:

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

Confirmed by:

LABORATORIUM BADAŃ CHEMICZNYCH
 I ANALIZ INSTRUMENTALNYCH
 ZASTĘPCA KIEROWNIKA
A. Lisiak-Kucińska
 mgr inż. Agnieszka Lisiak-Kucińska

Number of copies: 4

The test certificate receive:

- Client – 2 copies
- The Łukasiewicz Research Network – Textile Research Institute – BM – 1 copy
- The Łukasiewicz Research Network – Textile Research Institute – BCH – 1 copy

Laboratory of Flammability Testing

The Łukasiewicz Research Network - Textile Research Institute,

92-103 Łódź, 5/15 Brzezinska Str.

Laboratory: 90-520 Łódź, 118 Gdanska 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**No 228 / 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 VENUS VELVET, composition: 100% Polyester
- polyurethane foam T-3037, 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 WŁOKIENNICTWA
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:

technician Andrzej Kubacki

Test Certificate authorized by

Laboratorium Badań Palności WYROBÓW
KIEROWNIK

mgr inż. Małgorzata Szejna

25.04.2019

Sample received on: 02.04.2019

Test performed on: 24.04.2019

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 ± 2) °C; humidity (50 ± 5) %; time 24 h

Testing conditions: temperature 24°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 VENUS VELVET, composition: 100% Polyester
- polyurethane foam T-3037, self-extinguish

Criteria		Cigarette			Remarks					
		1	2	3						
Smouldering criteria	Unsafe escalating combustion	NO	NO	-	Maximum cigarette smouldering time: 14 minutes 03 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
					70	18	11	68	12	7

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

END OF THE TEST CERTIFICATE