

Laboratory of Flammability Testing

Lukasiewicz Research Network – Lodz Institute of Technology,
90-570 Lodz, 19/27 Marii Skłodowskiej-Curie Str., phone +48 42 307 09 01
Laboratory: 90-520 Lodz, 118 Gdanska Str., phone +48 42 2534435 (436),
fax +48 42 2534490
e-mail: krzysztof.kostanek@lit.lukasiewicz.gov.pl

TEST CERTIFICATE No 187 / BL - PW / 23

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. Mickiewicza 29
34-100 Wadowice

Subject of testing*:

Upholstery composite:
- upholstery fabric named HEVIA; composition: 100% polyester,
- flame-retardant foam RF 30120
Testing sample with the correct size, in appropriate state for testing, supplied by the Orderer with its characteristic and without the Sampling Protocol.

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:


Paulina Bartkovicz MSc.

Test Certificate authorized by


LABORATORIUM
BADAN PALNOŚCI WYROBÓW
KRYELOWNIK

dr inż. Krzysztof Kostanek

Sample received on: 04.07.2023
Test performed on: 11.07.2023
Test Certificate issued on: 11.07.2023

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.

DETAILED TESTING RESULTS

Climate conditions: temperature (23 ± 2) °C; humidity (50 ± 5) %; time 24 h
 Testing conditions: temperature 24 °C; humidity 48 %

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 HEVIA composition: 100% polyester,
- flame-retardant foam RF 30120.

Test method according to PN-EN 1021-1:2014-12

Criteria		Cigarette			Remarks					
		1	2	3						
Smouldering criteria	Unsafe escalating combustion	NO	NO	-	Maximum cigarette smouldering time: 15 minutes 55 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	10	68	13	7

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

END OF THE TEST CERTIFICATE



Laboratory of Chemical Instrumental Analysis

Łukasiewicz Research Network – Lodz Institute of Technology,
90-570 Lodz, 19/27 Marii Skłodowskiej-Curie Str., phone 48 42 307-09-01
Laboratory:
92-103 Lodz, 5/15 Brzezinska Str.
phone No +48 42 61-63-128 (121), fax +48 42 61-63-131
e-mail: agnieszka.lisiak-kucinska@lit.lukasiewicz.gov.pl,
gabriela.palucka@lit.lukasiewicz.gov.pl

Łódź, 26th July 2023

L-392/2023

TEST CERTIFICATE No BL-AI 373/660/2023/A

1. **Name and address of the principal ^{X)}:** "TOPTEXTIL" Sp. z o.o.
ul. Mickiewicza 29, 34 – 100 Wadowice
2. **Subject of study ^{X)}:** Sample – furniture upholstery fabric HEVIA – raw material
composition 100 % polyester
3. **Date of receiving sample for testing:** 05.07.2023
4. **Date of the test conducting:** 11.07. – 25.07.2023
5. **Sampling:** sample in a proper size, in a proper condition for tests, supplied by the customer

RESULTS OF THE TESTS

Tested feature	Result of the test [degree]	Reference document	Test conditions	Level of requirements for categories according to PN-EN 14465:2005 + A1:2007		
				A	B	C
Colour fastness to: - artificial light ¹⁾	a/ 5-6	PN-EN ISO 105-B02:2014-11 Method No 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 of the sample, indicator "1" means – big change in colour

a/ change in colour of the sample

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.
4. Total number of pages of the test certificate: 1.

Test conducted by:
Małgorzata Dałek MSc



Authorized by:

LABORATORIUM CHEMICZNYCH
ANALIZ INSTRUMENTALNYCH
Z-CA KIEROWNIKA

mgr inż. Gabriela Pałucka

Number of copies of the test certificate: 3

The test certificate receive:

- Customer - 2 copies

- The ŁUKASIEWICZ Research Network – Lodz Institute of Technology – BL-AI - 1 copy

- THE END -

Laboratory of Chemical Instrumental Analysis

Łukasiewicz Research Network – Lodz Institute of Technology,
90-570 Lodz, 19/27 Marii Skłodowskiej-Curie Str., phone 48 42 307-09-01
Laboratory:
92-103 Lodz, 5/15 Brzezinska Str.
phone No +48 42 61-63-128 (121), fax +48 42 61-63-131
e-mail: agnieszka.lisiak-kucinska@lit.lukasiewicz.gov.pl,
gabriela.palucka@lit.lukasiewicz.gov.pl

Łódź, 26th July 2023

L-295/2023

TEST CERTIFICATE No BL-AI 373/660/2023/A/I

- Name and address of the principal ^{X)}:** "TOPTEXTIL" Sp. z o.o.
ul. Mickiewicza 29, 34 – 100 Wadowice
- Subject of study ^{X)}:** Sample – furniture upholstery fabric HEVIA – raw material
composition 100 % polyester
- Date of receiving sample for testing:** 05.07.2023
- Date of the test conducting:** 19.07.2023
- Sampling:** sample in a proper size, in a proper condition for tests, supplied by
the customer

RESULTS OF THE TESTS

Tested feature	Result of the test [degree]	Reference document	Test conditions	Level of requirements for categories according to PN-EN 14465:2005 + A1:2007		
				A	B	C
Colour fastness to:						
- Dry rubbing ¹⁾ :						
<i>longitudinal direction</i>	a/ 4-5	PN-EN ISO 105-X12:2016-08	Acclimatization time: 4h Temperature of the test: 23.8°C Humidity of the test: 36.5% 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
<i>cross direction</i>	a/ 4-5					
- Wet rubbing ¹⁾ :						
<i>longitudinal direction</i>	a/ 5					
<i>cross direction</i>	a/ 5			≥ 3-4	≥ 3	≥ 2-3

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

Remarks:

- 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.
- ^{X)} Data provided by the principal/customer.
- Total number of pages of the test certificate: 1.

Test conducted by:
Małgorzata Dalek MSc



Authorized by:

LABORATORIUM CHEMICZNYCH
ANALIZ INSTRUMENTALNYCH
Z-CA KIEROWNIKA

mgr inż. Gabriela Palucka

Number of copies of the test certificate: 3

The test certificate receive:

- Customer - 2 copies
- The ŁUKASIEWICZ Research Network – Lodz Institute of Technology – BL-AI - 1 copy

- THE END -



Łukasiewicz

Lodz Institute of Technology

Laboratory of Textile Metrology and Electrostatics

Łukasiewicz Research Network – Lodz Institute of Technology,

90-570 Lodz, 19/27 Marii Skłodowskiej-Curie Str.,

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

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

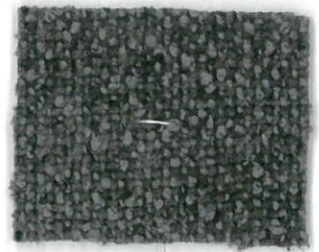
e-mail: beata.witkowska@lit.lukasiewicz.gov.pl; jerzy.andrysiak@lit.lukasiewicz.gov.pl

TEST REPORT NO. BL-ME 421.5 / 2023 / B

- 1. Test ordered by:**^x „TOPTEXTIL” Sp. z o.o., 29 Mickiewicza Street, 34-100 Wadowice
- 2. Name and description of tested material:**^x the sample: **the upholstery product HEVIA**, declared raw material composition: 100% Polyester.
- 3. Date of receiving material for testing:** 2023-07-04
- 4. Date of test performance:** 2023-08-22
- 5. Samples taken by:**^x limited 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 Report can be copied without written permission of the Head of the Laboratory; it can be copied only as a whole document.
3. Test Report consists of test results carried out in location 90-520 Łódź, ul. Gdańska 118 (G) / 92-103 Łódź, ul. Brzezińska 5/15(B).
4. 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 $k = 2$.
5. Laboratory uses the requirements of ILAC-G8:09/2019. The conformity statement of test results with requirements/specification takes place, when the test results together with expanded uncertainty does not exceed the tolerance limit given in specification. The conformity statement's rules given by Client could be allowed.

Test Report date: 2023-08-23

Number of Test Report 's copies: 2

Test Report handed to:

- 1) „TOPTEXTIL” Sp. z o.o., Wadowice - 1 copy
- 2) Laboratory of Textile Metrology and Electrostatics (location: 5/15 Brzezińska str.) - 1 copy.

Test Report prepared by:
Patrycja Bąk

Person authorizing the Test Report

LABORATORIUM METROLOGII WŁÓKIENNICZEJ
I ELEKTROSTATYKI
Z-CIA KIEROWNIKA

mgr inż. Jerzy Andrysiak

Sieć Badawcza Łukasiewicz
Łódzki Instytut Technologii
Laboratorium Metrologii
Włókienniczej i Elektrostatyki
92-103 Łódź, ul. Brzezińska 5/15
tel. 42 61 63 142, fax 42 61 63 131

TEST REPORT NO. BL-ME 421.5 / 2023 / B

Parameter	Result	Test method
The mean of bursting strength, kPa	616 ± 71	PN-EN ISO 13938-1:2020-05 (hydraulic method) the sample conditioned according to PN-EN ISO 139:2006 + A1:2012, temp. 20° C ± 2 °C, R.H. 65% ± 4%, burst device: PSI-BURST, test area: 50 cm ² , time at burst: (20±5) s, number of test specimens: 5.
The mean of height at burst, mm	17 ± 1	
Evaluation according to PN-EN 14465:2005 + A1:2007: requirements level: A category: ≥ 600 kPa; B category: ≥ 400 kPa ; C category: ≥ 200 kPa		

Person authorizing the Test Report

LABORATORIUM METROLOGII WŁÓKIENNICZEJ
I ELEKTROSTATYKI
Z-CA KIEROWNIKA

mgr inż. Jerzy Andrysiak

_____ **The end of Test Report** _____



Łukasiewicz

Lodz Institute of Technology

Laboratory of Textile Metrology and Electrostatics

Łukasiewicz Research Network – Lodz Institute of Technology,

90-570 Lodz, 19/27 Marii Skłodowskiej-Curie Str.,

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

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

e-mail: beata.witkowska@lit.lukasiewicz.gov.pl; jerzy.andrysiak@lit.lukasiewicz.gov.pl

TEST REPORT NO. BL-ME 421.4 / 2023 / B

- 1. Test ordered by:**^X „TOPTEXTIL” Sp. z o.o., 29 Mickiewicza Street, 34-100 Wadowice
- 2. Name and description of tested material:**^X the sample: **the upholstery product HEVIA**, declared raw material composition: 100% Polyester.
- 3. Date of receiving material for testing:** 2023-07-04
- 4. Date of test performance:** 2023-08-22
- 5. Samples taken by:**^X limited 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 Report can be copied without written permission of the Head of the Laboratory; it can be copied only as a whole document.
3. Test Report consists of test results carried out in location 90-520 Łódź, ul. Gdańska 118 (G) / 92-103 Łódź, ul. Brzezińska 5/15(B).
4. 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 $k = 2$.
5. Laboratory uses the requirements of ILAC-G8:09/2019. The conformity statement of test results with requirements/specification takes place, when the test results together with expanded uncertainty does not exceed the tolerance limit given in specification. The conformity statement's rules given by Client could be allowed.

Test Report date: 2023-08-23

Number of Test Report 's copies: 2

Test Report handed to:

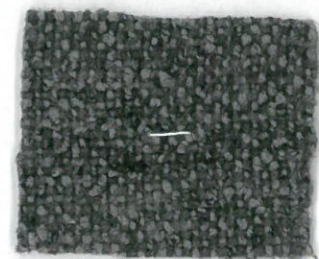
- 1) „TOPTEXTIL” Sp. z o.o., Wadowice - 1 copy
- 2) Laboratory of Textile Metrology and Electrostatics (location: 5/15 Brzezińska str.) - 1 copy.

Test Report prepared by:
Patrycja Bąk

Person authorizing the Test Report

LABORATORIUM METROLOGII WŁÓKNIENICZEJ
I ELEKTROSTATYKI
Z-CA KIEKOWNIKA

mgr inż. Jerzy Andrysiak



Słoneczna
Łódźki Instytut Technologii
Laboratorium Metrologii Włókienniczej i Elektrostatyki
Włókiennicza 5/15
92-103 Łódź, ul. Brzezińska 5/15
tel. 42 61 63 142, fax 42 61 63 131

TEST REPORT NO. BL-ME 421.4 / 2023 / B

Parameter	Result	Test method
Resistance to drawing out the threads for longitudinal direction, degree Resistance to drawing out the threads for cross direction, degree	<p align="center">3</p> <p align="center">3 - 4</p>	PN-79/P-04664 conditioned sample, sample conditioned according to PN-EN ISO 139:2006 + A1:2012, temp. 20° C ± 2 °C, RH: 65% ± 4%, 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: 200, number of tested specimens: 2 test specimens for each direction. <u>Assessment according to photographic standard:</u> 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.

Person authorizing the Test Report

LABORATORIUM METROLOGII WŁÓKIENNICZEJ
 I ELEKTRŹYSTYKI
 Z-CA KIEROWNIKA

mgr inż. Jerzy Andrzyśiak

The end of Test Report



Łukasiewicz

Lodz Institute of Technology

Laboratory of Textile Metrology and Electrostatics

Łukasiewicz Research Network – Lodz Institute of Technology,

90-570 Lodz, 19/27 Marii Skłodowskiej-Curie Str.,

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

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

e-mail: beata.witkowska@lit.lukasiewicz.gov.pl; jerzy.andrysiak@lit.lukasiewicz.gov.pl

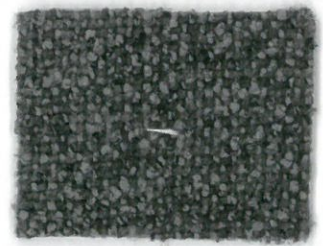
TEST REPORT NO. BL-ME 421.3 / 2023 / B

- 1. Test ordered by:**^X „TOPTEXTIL” Sp. z o.o., 29 Mickiewicza Street, 34-100 Wadowice
- 2. Name and description of tested material:**^X the sample: **the upholstery product HEVIA**, declared raw material composition: 100% Polyester.
- 3. Date of receiving material for testing:** 2023-07-04
- 4. Date of test performance:** 2023-08-21
- 5. Samples taken by:**^X 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 Report can be copied without written permission of the Head of the Laboratory; it can be copied only as a whole document.
3. Test Report consists of test results carried out in location 90-520 Łódź, ul. Gdańska 118 (G) / 92-103 Łódź, ul. Brzezińska 5/15(B).
4. 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.
5. Laboratory uses the requirements of ILAC-G8:09/2019. The conformity statement of test results with requirements/specification takes place, when the test results together with expanded uncertainty does not exceed the tolerance limit given in specification. The conformity statement's rules given by Client could be allowed.

Test Report date: 2023-08-23

Number of Test Report 's copies: 2

Test Report handed to:

- 1) „TOPTEXTIL” Sp. z o.o., Wadowice - 1 copy
- 2) Laboratory of Textile Metrology and Electrostatics (location: 5/15 Brzezińska str.) - 1 copy.

Test Report prepared by:

Patrycja Bąk

Person authorizing the Test Report

LABORATORIUM METROLOGII WŁÓKIENNICZEJ
I ELEKTROSTATYKI
Z-CA KIEROWNIKA

mgr inż. Jerzy Andrysiak

Sieć Radawcz
Łódzki Instytut
Laboratorium i Metrologii
Włókienniczej i Elektrostatyki
92-103 Łódź, ul. Brzezińska 5/15
tel. 42 61 63 142, fax 42 61 63 131

TEST REPORT NO. BL-ME 421.3 / 2023 / 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	 4 ± 0 4; 4; 4,5; 4,5; 4,5 4 ± 0 4,5; 4,5; 4,5; 4,5; 4	PN-EN ISO 13936-2:2005 sample conditioned according to PN-EN ISO 139:2006 + A1:2012, temp. 20° C ± 2 °C, RH: 65% ± 4%, 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 test specimens: 5
Evaluation according to PN-EN 14465:2005 + A1:2007: requirements level: A category: ≤ 4 mm; B category: ≤ 6 mm; C category: ≤ 8 m		

Person authorizing the Test Report

LABORATORIUM METROLOGII WŁÓKIENNICZEJ
I ELEKTROSTATYKI
Z-CA KIEROWNIKA

mgr inż. Jerzy Andrysiak

_____ **The end of Test Report** _____



Łukasiewicz

Lodz Institute of Technology

Laboratory of Textile Metrology and Electrostatics

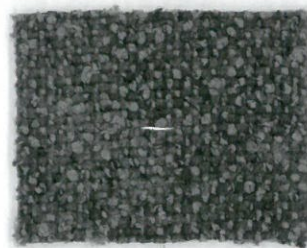
Łukasiewicz Research Network – Lodz Institute of Technology,
90-570 Lodz, 19/27 Marii Skłodowskiej-Curie Str.,
Laboratory: 92-103 Lodz, 5/15 Brzezińska Str., phone 48 42 6163142, fax 48 42 6792638
Laboratory: 90-520 Lodz, 118 Gdanska Str., phone 48 42 2534419, fax 48 42 2534490
e-mail: beata.witkowska@lit.lukasiewicz.gov.pl; jerzy.andrysiak@lit.lukasiewicz.gov.pl



AB 164

TEST REPORT NO. BL-ME 421.2 / 2023 / B / A

- 1. Test ordered by:** ^x „TOPTEXTIL” Sp. z o.o., 29 Mickiewicza Street, 34-100 Wadowice
- 2. Name and description of tested material:** the sample: ^x **the upholstery product HEVIA**, declared raw material composition: 100% Polyester.
- 3. Date of receiving material for testing:** 2023-07-04
- 4. Date of test performance:** 2023-08-21 ÷ 22
- 5. Samples taken by:** ^x correct sample size in appropriate state for testing, taken by the Client and delivered with/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 Report can be copied without written permission of the Head of the Laboratory; it can be copied only as a whole document.
3. Test Report 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. Test Report consists of test results carried out in location 90-520 Łódź, ul. Gdańska 118 (G) / 92-103 Łódź, ul. Brzezińska 5/15 (B).
6. 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 $k = 2$.
7. Laboratory uses the requirements of ILAC-G8:09/2019. The conformity statement of test result with requirements in specification takes place, when the test results together with expanded uncertainty does not exceed the tolerance limit given in specification. The conformity statement's rules given by Client could be allowed.

Test Report date: 2023-08-23

Number of Test Report`s copies: 2

Test Report handed to:

- 1) „TOPTEXTIL” Sp. z o.o., Wadowice - 1 copy,
- 2) Laboratory of Textile Metrology and Electrostatics (location: 5/15 Brzezińska str.) - 1 copy.

Test Report prepared by:

Patrycja Bąk

Person authorizing the Test Report:

LABORATORIUM METROLOGII WŁÓKIENNICZEJ
I ELEKTROSTATYKI
Z-CA KIEROWNIKA

mgr inż. Jerzy Andrysiak

Sieć F adawcza Łódź
Instytut Łukasiewicz
Laboratorium Metrologii
Włókienniczej i Elektrostatyki
92 103 Łódź, ul. Brzezińska 5/15
tel. 42 61 63 142, fax 42 61 63 131

TEST REPORT NO. BL-ME 421.2 / 2023 / B / A

Parameter	Value	Test method	
Propensity to surface fuzzing, pilling or matting, grade - <u>pilling</u> the number of rubs	125	PN-EN ISO 12945-2:2021-04 PN-EN ISO 12945-4:2021-04 (modified Martindale method) sample conditioned according to PN-EN ISO 139:2006 + A1:2012, temp. 20° C ± 2 °C, RH: 65% ± 4%, the abradant: the standard woolen fabric; number of test specimens: 3, number of evaluators: 3, mass of weight: (415 ± 2) g.	
	500		
	1 000		
	2 000		5 no change
	5 000		
	7 000		
	7 000		
- <u>fuzzing</u> the number of rubs	125		
	500		4 - 5
	1 000		4 - 5
	2 000		4 slight surface fuzzing
	5 000		4
	7 000		4
- <u>matting</u> the number of rubs	125		
	500		4 - 5
	1 000		4 - 5
	2 000		4 slight surface matting
	5 000		4
	7 000		4
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			

Person authorizing the Test Report
 LABORATORIUM METROLOGII I ELEKTROSTATYKI
Z-CA KIEROWNIKA

mgr inż. Jerzy Andrysiak

_____ The end of Test Report _____



Łukasiewicz

Lodz Institute of Technology

Laboratory of Textile Metrology and Electrostatics

Łukasiewicz Research Network – Lodz Institute of Technology,

90-570 Lodz, 19/27 Marii Skłodowskiej-Curie Str.,

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

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

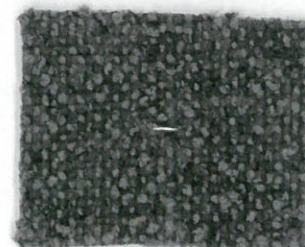
e-mail: beata.witkowska@lit.lukasiewicz.gov.pl; jerzy.andrysiak@lit.lukasiewicz.gov.pl



AB 164

TEST REPORT NO. BL-ME 421.1 / 2023 / B / A

- 1. Test ordered by:** ^x „TOPTEXTIL” Sp. z o.o., 29 Mickiewicza Street, 34-100 Wadowice
- 2. Name and description of tested material:** the sample: ^x **the upholstery product HEVIA**, declared raw material composition: 100% Polyester.
- 3. Date of receiving material for testing:** 2023-07-04
- 4. Date of test performance:** 2023-08-16÷21
- 5. Samples taken by:** ^x correct sample size in appropriate state for testing, taken by the Client and delivered with/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 Report can be copied without written permission of the Head of the Laboratory; it can be copied only as a whole document.
3. Test Report 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. Test Report consists of test results carried out in location 90-520 Łódź, ul. Gdańska 118 (G) / 92-103 Łódź, ul. Brzezińska 5/15 (B).
6. 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 $k = 2$.
7. Laboratory uses the requirements of ILAC-G8:09/2019. The conformity statement of test result with requirements/specification takes place, when the test results together with expanded uncertainty does not exceed the tolerance limit given in specification. The conformity statement's rules given by Client could be allowed.

Test Report date: 2023-08-23

Number of Test Report 's copies: 2

Test Report handed to:

- 1) „TOPTEXTIL” Sp. z o.o., Wadowice - 1 copy,
- 2) Laboratory of Textile Metrology and Electrostatics (location: 5/15 Brzezińska str.) - 1 copy.

Test Report prepared by:

Patrycja Bąk

Person authorizing the Test Report:

LABORATORIUM METROLOGII WŁÓKIENNICZEJ
I ELEKTROSTATYKI
Z-CA KIEROWNIKA

mgr inż. Jerzy Andrysiak

Sieć Badań Łukasiewicz
Łódzki Instytut Technologiczny
Laboratorium Metrologii Włókienniczej i Elektrostatyki
92-103 Łódź ul. Brzezińska 5/15
tel. 42 61 63 42, fax 42 61 63 131

TEST REPORT NO. BL-ME 421.1 / 2023 / 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 sample conditioned according to PN-EN ISO 139:2006 + A1:2012, temp. 20° C ± 2 °C, RH: 65% ± 4%, 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> the product with shenille fabric – three threads are completely broken or when chenille pile is fully worn off (whatever comes first).
	1 specimen	60 000	
	2 specimen	60 000	
	3 specimen	60 000	
	4 specimen	60 000	
Total abrasion resistance (the lowest individual result)	60 000		

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

Person authorizing the Test Report

LABORATORIUM METROLOGII WŁÓKIENNICZEJ
 I ELEKTROSTATYKI
 Z-CA KIEROWNIKA

mgr inż. Jerzy Andrysiak

_____ **The end of Test Report** _____