

**Laboratory of Testing
Textile Raw Materials and Fabrics**

92-103 Lodz, 5/15 Brzezinska Str., phone 48 42 6163140, fax 48 42 6792638
90-520 Lodz, 118 Gdanska Str., phone 48 42 2534419, fax 48 42 2534490
e-mail: krolikowska@iw.lodz.pl, bwitkowska@iw.lodz.pl

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

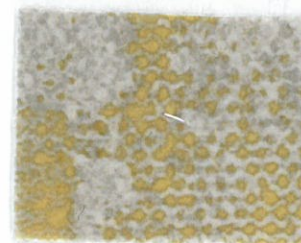
TEST CERTIFICATE NO. BM 87.6.1.4 / 2016 / G / A

1. **Test ordered by:** „TOPTEXTIL” Sp. z o.o., Wadowicka Str.12; 30-415 Kraków
2. **Name and description of tested material:** the sample: *the upholstery product CYKLON, declared raw material composition: 100 % Polyester*
3. **Date of receiving material for testing:** 2016-08-03
4. **Date of test performance:** 2016-08-12
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: Krystyna Wierus



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: 2016-08-18

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

Person authorizing the Test Certificate:

Name and surname: Inżynier Halina Królikowska
Function: Dyrektor Laboratorium Badań Surowców i Włókien Włókienniczych Instytut Włókiennictwa
Signature: [Signature]

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

-verte-

TEST CERTIFICATE NO. BM 87.6.1.4 / 2016 / G / A

Parameter		Value	Remarks
Resistance to surface wetting (Spray test), degree	1 specimen	2 - 3	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	2 - 3	
	3 specimen	2 - 3 wetting of the specimen face at spray points and partial wetting of the specimen face beyond the spray points	

_____ The end of Test Certificate _____

Person authorizing the Test Certificate

Laboratorium Badań Surowców
i Wyrobów Włóknieniczych
Instytut Mody i Modności

mgr inż. Halina Królikowska

**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, 26th of August 2016

L - 337/2016

TEST CERTIFICATE no BCH 308/614/2016/A

- Name and address of the principal:** „TOPTEXTIL” Sp. z o.o.
ul. Wadowicka
30 – 415 Kraków
- Name and description of tested sample:** Sample: furniture upholstery article CYKLON, declared material composition 100% polyester
- Date of receiving sample for testing:** 04.08.2016
- Date of performance of testing:** 08.08. – 26.08.2016
- Sampling:** sample in a proper size, in a proper condition for research, supplied by the Client

RESULTS OF THE TESTS

Property of investigation	Results ¹⁾	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	a/ 4-5	PN-EN ISO 105-X12:2005	<u>Test conditions:</u> ambient temperature: 22,8°C 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	a/ 4-5					
- 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 cotton to rubbing

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:

Katarzyna Chylewska, M.Sc. Eng.



Number of copies: 4

The test certificate receive:

- Client – 2 copies
- IW – Laboratory of Chemical Testing and Instrumental Analysis – 1 copy
- IW – Laboratory of Testing Textile Raw Materials and Fabrics – 1 copy

Confirmed by:

LABORATORIUM BADAŃ CHEMICZNYCH
I ANALIZ INSTRUMENTALNYCH
KIEROWNIK

mgr inż. Jerzy Piestrzeniewicz

**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: piestrzeniewicz@iw.lodz.pl, labchem@iw.lodz.plŁódź, 26th of August 2016

L - 337/2016

TEST CERTIFICATE no BCH 308/614/2016/A/1

- Name and address of the principal:** „TOPTEXTIL” Sp. z o.o.
ul. Wadowicka
30 – 415 Kraków
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- Date of receiving sample for testing:** 04.08.2016
- Date of performance of testing:** 08.08. – 26.08.2016
- Sampling:** sample in a proper size, in a proper condition for research, supplied by the Client

RESULTS OF THE TESTS

Property of investigation	Results ¹⁾	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	a/ 4 (yellow) a/ 1-2 (silver)	PN-EN ISO 105-B02:2014-11 Method 2	Device: Xenotest Alpha + Light conditions: - 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

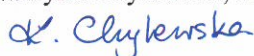
¹⁾ Colour fastness according to “Blue scale”, indicator “8” means – no change in colour, indicator “1” means – big change in colour
a/ change of colour of the sample

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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- IW – Laboratory of Testing Textile Raw Materials and Fabrics – 1 copy

Confirmed by:

LABORATORIUM BADAŃ CHEMICZNYCH
I ANALIZ INSTRUMENTALNYCH
KIEROWNIK
mgr inż. Jerzy Piestrzeniewicz



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**

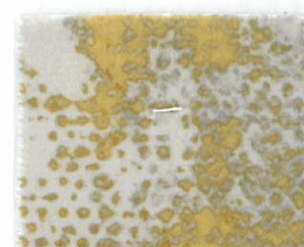
TEST CERTIFICATE NO. BM 87.6.1.1 / 2016 / B / A

1. **Test ordered by:** „TOPTEXTIL” Sp. z o.o., Wadowicka Str.12; 30-415 Kraków
2. **Name and description of tested material:** the sample: *the upholstery product CYKLON, declared raw material composition: 100 % Polyester*
3. **Date of receiving material for testing:** 2016-08-03
4. **Date of test performance:** 2016-08-17
5. **Samples taken by:** correct sample size in appropriate state for testing, taken by the Client and delivered without the Sampling Protocol
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Results of Laboratory Tests

see page 2/2

Test performed by: Danuta Ławniczak



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Certificate date: 2016-08-18

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

Person authorizing the Test Certificate:

Name and surname: mgr inż. Halina Królikowska
Function: Kierownik Laboratorium Badań Surowców i Włókien Włókienniczych Instytut Włókiennictwa
Signature:

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

-verte-

TEST CERTIFICATE NO. BM 87.6.1.1 / 2016 / B / A

Parameter		Value	Remarks
Abrasion resistance, number of rubs	color change after 3 000 rubs, grade of grey scale	4	PN-EN ISO 12947-2:2000 + AC:2006 + PN-EN 14465:2005+A1:2007, Annex A <i>Test conditions:</i> 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. Criterion of <u>destruction of the testing specimens in accordance with that standard:</u> local wiping of the cover on the surface 5 mm ² without damage rows/columns in knitted fabric. <u>Note:</u> clear wiping printing at 18 000 rubs.
	1 specimen	30 000	
	2 specimen	30 000	
	3 specimen	30 000	
	4 specimen	30 000	
	Total abrasion resistance (the lowest individual result)	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

mgr inż. Halina Królikowska
 Laboratorium Badaw Surowców
 i Wyrobów Włókienniczych
 Instytut Włókiennictwa

Laboratory of Testing
Textile Raw Materials and Fabrics

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

TEST CERTIFICATE NO. BM 87.6.1.2 / 2016 / B

1. **Test ordered by:** „TOPTEXTIL” Sp. z o.o. ul. Wadowicka 12; 30-415 Kraków
2. **Name and description of tested material:** the sample: *the upholstery product CYKLON, declared raw material composition: 100 % Polyester*
3. **Date of receiving material for testing:** 2016-08-03
4. **Date of test performance:** 2016-08-12
5. **Samples taken by:** 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: Małgorzata Plac

1. *Test results refer only to the tested material.*
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Certificate date: 2016-08-18

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

Person authorizing the Test Certificate:

Name and surname: *Laboratorium Badań Surowców*

Function: *i Wyrobów Włókienniczych*

Instytut Włókiennictwa

Signature:

mgr inż. Halina Królikowska

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

-verte-

TEST CERTIFICATE NO. BM 87.6.1.2 / 2016 / B

Parameter	Value	Remarks
Seam slippage resistance, mm: <u>Columns</u> The mean value of seam slippage resistance for lengthwise direction, mm - individual results, mm <u>Rows</u> The mean value of seam slippage resistance for crosswise direction, mm - individual results, mm	2 2; 2; 3; 2,5; 2 3 2,5; 3; 2,5; 3; 2,5	PN-EN ISO 13936-2:2005 <i>Test conditions:</i> 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 testing specimens: 5

_____ The end of Test Certificate _____

Person authorizing the Test Certificate

Laboratorium Badaw Surowców
i Wyrobow Włókienniczych
Instytut Techniki

mgr inż. Halina Królikowska



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 87.6.1.3 / 2016 / B / A

1. **Test ordered by:** „TOPTEXTIL” Sp. z o.o., Wadowicka Str.12; 30-415 Kraków
2. **Name and description of tested material:** the sample: *the upholstery product CYKLON, declared raw material composition: 100 % Polyester*
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Results of Laboratory Tests

see page 2/2

Test performed by: Małgorzata Plac

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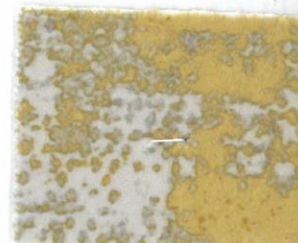
- 1) TOPTEXTIL Sp. z o.o., Kraków – 1 copy
- 2) Laboratory of Testing Textile Raw Materials and Fabrics - 1 copy.

Certificate prepared by:
Patrycja Bąk

Person authorizing the Test Certificate:

Name and surname: *Laboratorium Badań Surowców i Wyrobów Włókienniczych Instytut Włókiennictwa*
Function:
Signature

mgr inż. Małgorzata Królikowska



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

-verte-

TEST CERTIFICATE NO. BM 87.6.1.3 / 2016 / B / A

Parameter	Value	Remarks
Propensity to surface fuzzing and pilling, <i>the number of rubs</i>	500	PN-EN ISO 12945-2:2002 (modified Martindale method) <i>Test conditions:</i> the abradant: the standard woolen fabric; mass of weight: 415 ± 2 g;
	1 000	
	2 000	
	5 No change	
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

Kierownik
Laboratorium Badań
i Wytwarzania Włókien
Instytut Włókiennictwa
mgr inż. Halina Królikowska

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 268 / BP / 16

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 for furniture named CYKLON

composition: 100% polyester

- CM-3040 polyurethane flame-retardant foam

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
ul. Gdańska 118, 90-520 Łódź
tel. 42 25 34 400, fax 42 25 34 490

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

Sample received on: 05.08.2016

Test performed on: 19.08.2016

Test Certificate authorized by:

Laboratorium Badań Palności Wyrobów
KIEROWNIK TECHNICZNY

mgr inż. Agnieszka Hulewicz
19.08.2016

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 RESULTS

Climate conditions: temperature $(23 \pm 2) ^\circ\text{C}$; humidity $(50 \pm 5) \%$; time 24 h
 Testing conditions: temperature $22 ^\circ\text{C}$; humidity 52 %

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 of:

- upholstery material named CYKLON,
composition: 100% polyester
- CM-3040 polyurethane flame-retardant foam

Criteria		Cigarette			Remarks
		1	2	3	
Smouldering criteria	Unsafe escalating combustion	NO	NO	-	Maximum cigarette smouldering time: 17 minutes 54 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
					68 16 11 66 19 10

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

END OF THE TEST CERTIFICATE