


**Laboratorium Badań Surowców
 i Wyrobów Włókienniczych**

 Siedziba: ul. Brzezińska 5/15, 92-103 Łódź, tel. +48(0) 42 6163140
 Siedziba: ul. Gdańska 118. 90-520 Łódź. tel. +48(0) 42 2534421


AB 164

LABORATORY OF TESTING TEXTILE RAW MATERIALS AND FABRICS
Testing Laboratory accredited by the Polish Centre for Accreditation
TEST CERTIFICATE NO. BM 2.1.1 / 2015 / 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 fabric HAMILTON*, declared raw material composition: 100 % Polyester
3. **Date of receiving material for testing:** 07.01.2015
4. **Date of test performance:** 21.01.2015
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.*
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: 22.01.2015

Number of Certificate copies: 3

Test Certificate handed to:

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

Certificate prepared by:

Patrycja Bąk

Person authorizing the Test Certificate:

Name and surname: Halina Królikowska

Function: Head of the Laboratory

Signature:

 Laboratorium Badań Surowców
 i Wyrobów Włókienniczych
 Instytut Włókiennictwa

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TEST CERTIFICATE NO. BM 2.1.1 / 2015 / B / A

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

_____ The end of Test Certificate _____

Person authorizing the Test Certificate

Kierownik
 Laboratorium
 Włókienniczych
 Przemysłu
 i Handlu
 Włókiennictwa

 mgr inż. Halina Królikowska



Laboratorium Badań Surowców i Wyrobów Włókienniczych

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AB 164

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

TEST CERTIFICATE NO. BM 2.1.2 / 2015 / 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 fabric HAMILTON*, declared raw material composition: 100 % Polyester
3. Date of receiving material for testing: 07.01.2015
4. Date of test performance: 16.01.2015
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: 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. 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: 22.01.2015

Number of Certificate copies: 3

Test Certificate handed to:

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

Certificate prepared by:

Patrycja Bąk

Person authorizing the Test Certificate:

Name and surname: Halina Królikowska

Function: Head of the Laboratory

Signature:

Laboratorium Badań Surowców
i Wyrobów Włókienniczych
Instytut Włókiennictwa

mgr inż. Halina Królikowska ^{verte-}

TEST CERTIFICATE NO. BM 2.1.2 / 2015 / B / A

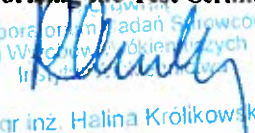
Parameter		Value	Remarks
Abrasion resistance, number of rubs	color change after 3 000 rubs, grade of grey scale	4 - 5	PN-EN ISO 12947-2:2000 + AC:2006 + PN-EN 14465:2005+A1:2007, Annex A <i>Test conditions:</i> the abradant: the standard woollen fabric, the nominal pressure used in the test: 12 kPa, 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> fiber cover completely wiped.
	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 ÷ 30 000, C category: number of rubs: 4 000 ÷ 10 000

_____ The end of Test Certificate _____

Person authorizing the Test Certificate

Laboratorium Badań Skrawców
 i Włókien i Włókien Sztucznych

 mgr inż. Halina Królikowska



Laboratorium Badań Surowców i Wyrobów Włókienniczych

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AB 164

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

TEST CERTIFICATE NO. BM 2.1.3 / 2015 / 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 fabric HAMILTON*, declared raw material composition: 100 % Polyester
3. **Date of receiving material for testing:** 07.01.2015
4. **Date of test performance:** 16.01.2015
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 Oleczak

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: 22.01.2015

Number of Certificate copies: 3

Test Certificate handed to:

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

Certificate prepared by:

Patrycja Bąk

Person authorizing the Test Certificate:

Name and surname: Halina Królikowska

Function: Head of the Laboratory

Signature:

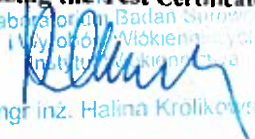
mgr inż. Halina Królikowska -verte-

TEST CERTIFICATE NO. BM 2.1.3 / 2015 / B / A

Parameter		Value	Remarks
Propensity to surface fuzzing and pilling,	<i>the number of rubs</i>		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;
	500	4	
	1 000	3 - 4	
	2 000	3 moderate surface fuzzing and moderate pilling	
Evaluation: according to PN-EN 14465:2005+A1:2007: A category: grade $\geq 4 - 5$; B category: grade 4; C category: grade 3 - 4; D category: grade 3			

_____ The end of Test Certificate _____

Person authorizing the Test Certificate

Laboratorium Badani Szwarców
 Wydział Włókienniczy
 Instytut Techniczny

 mgr inż. Halina Krolikowska

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i Wyrobów Włókienniczych**Siedziba: ul. Brzezińska 5/15, 92-103 Łódź, tel. +48(0) 42 6163140
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AB 164

LABORATORY OF TESTING TEXTILE RAW MATERIALS AND FABRICS
Testing Laboratory accredited by the Polish Centre for Accreditation**TEST CERTIFICATE NO. BM 2.1.4 / 2015 / 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 fabric HAMILTON*, declared raw material composition: 100 % Polyester
3. **Date of receiving material for testing:** 07.01.2015
4. **Date of test performance:** 09.01.2015
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: Ewa Gontarska

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: 23.01.2015**Number of Certificate copies:** 3**Test Certificate handed to:**

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

Certificate prepared by:

Patrycja Bąk

Person authorizing the Test Certificate:

Name and surname: Halina Królikowska

Function: Head of the Laboratory

Signature:

Kierownik
Laboratorium Badań Surowców
i Wyrobów Włókienniczych
Instytut Włókiennictwa

-verte-

mgr inż. Halina Królikowska

TEST CERTIFICATE NO. BM 2.1.4 / 2015 / G / A

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

_____ The end of Test Certificate _____

Person authorizing the Test Certificate


 Kierownik
 Laboratorium Włókna Surowców
 i Wyrobów Technicznych
 Instytut Włókiennictwa

mgr inż. Halina Królikowska