



Laboratorium Badań Surowców i Wytrobów Włókienniczych

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LABORATORY OF TESTING TEXTILE RAW MATERIALS AND FABRICS

TEST CERTIFICATE NO. BM 2.10.4 / 2015 / B

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 ALONSO*, declared raw material composition: 100 % Polyester
3. **Date of receiving material for testing:** 15.04.2015
4. **Date of test performance:** 28.04.2015
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

Parameter	Value	Remarks
The mean of bursting strength, kPa	1220	PN-EN ISO 13938-1:2002 (hydraulic method)
The mean of height at burst, mm	27	Test conditions: test area: 50 cm ² ; time at burst: (20 ± 5) s
<u>Evaluation:</u> according to PN-EN 14465:2005+A1:2007: A category: bursting strength ≥ 600 kPa; B category: bursting strength ≥ 400 kPa; C category: bursting strength ≥ 200 kPa		

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: 05.05.2015

Number of Certificate copies: 2

Test Certificate handed to:

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

Certificate prepared by:

Patrycja Bąk

The end of Test Certificate

Person authorizing the Test Certificate:

Name and surname: Halina Królikowska

Function: Head of the Laboratory

Signature:



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Textile Research Institute



Laboratory of Chemical Testing and Instrumental Analysis

Accredited by Polish Center for Accreditation for the testing
specified in Scope of Accreditation No AB 077

AB 077

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L - 219/2015

Łódź 5th May 2015

TEST CERTIFICATE No BCH 217/351/2015/A

- Name and address of the principal: „TOPTEXTIL” Sp. z o.o.
ul. Wadowicka 12, 30 – 415 Kraków
- Name and description of tested sample: sample of furniture upholstery fabric ALONSO – material
composition: 100% Polyester
- Date of receiving sample for testing: 15.04.2015
- Date of performance of testing: 20.04. – 04.05.2015
- Sampling: by Client personally

RESULTS OF THE TESTS

Property of investigation	Results	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 ¹⁾	a/ 4-5	PN-EN ISO 105-X12:2005	<u>Test conditions:</u> ambient temperature; 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					
Colour fastness to:			Device: Xenotest Alpha +			
- artificial light ²⁾	b/ 5-6	PN-EN ISO 105-B02:2013 Method 2	<u>Light conditions:</u> - wavelength: 300-400nm - 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 “Grey scale”, indicator “5” means – no change in colour, indicator “1” means – big change in colour
²⁾ Colour fastness according to “Blue scale”, indicator “8” means – no change in colour, indicator “1” means – big change in colour

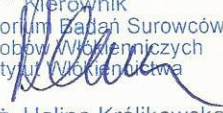
- a/ staining rubbing to cotton
b/ change of colour

TEST CERTIFICATE NO. BM 2.10.1 / 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	5 4,5; 4,5; 5,5; 5,5; 5 4 3,5; 4,5; 4; 3,5; 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
Evaluation: 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 Badań Surowców
 i Wyrobów Włókienniczych
 Instytut Włókiennictwa

 mgr inż. Halina Królikowska

TEST CERTIFICATE NO. BM 2.10.2 / 2015 / B / A

Parameter	Value	Remarks
Abrasion resistance, number of rubs	color change after 3 000 rubs, grade of grey scale	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> three threads completely destroyed
	1 specimen	
	2 specimen	
	3 specimen	
	4 specimen	
	100 000 lack of total destruction	
Total abrasion resistance (the lowest individual result)		90 000
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 Badań Surowców
i Wyrobów Włókienniczych
Instytut Włókiennictwa

TEST CERTIFICATE NO. BM 2.10.3 / 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	5	
	1 000	5	
	2 000	5 no change	
<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

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i Wytworów włókienniczych
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