

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

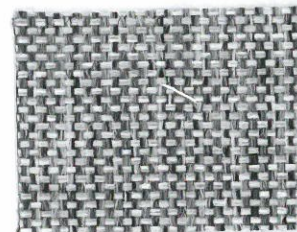
TEST CERTIFICATE NO. BM 12.6.1.1 / 2018 / B / A

1. **Test ordered by:** „TOPTEXTIL” Sp. z o.o. , 12 Wadowicka Street; 30-415 Kraków
2. **Name and description of tested material:** the sample: **the upholstery fabric KONGO, declared raw material composition: 100% Olefin**
3. **Date of receiving material for testing:** 2018-04-19
4. **Date of test performance:** 2018-04-25
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

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 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: 2018-04-27

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:

Function:

Signature

Zastępca kierownika
Laboratorium Badań Surowców
i Wyrobów Włókienniczych
Instytut Włókiennictwa

mgr inż. Jerzy Andrysiak

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

TEST CERTIFICATE NO. BM 12.6.1.1 / 2018 / B / A

Parameter		Value	Remarks
Propensity to surface fuzzing and pilling, grade	<i>the number of rubs</i>		PN-EN ISO 12945-2:2002 (modified Martindale method) the conditioned sample, the abradant: the standard woolen fabric; mass of weight: 415 ± 2 g;
	500	5	
	1 000	4 - 5	
	2 000	4 - 5 Slight surface fuzzing	
	5 000	4 - 5	
<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

Zastępca Kierownika
Laboratorium Badań Surowców
i Wyrobów Włókienniczych
Instytut Włókiennictwa
mgr inż. Jerzy Andrysiak

Laboratory of Testing Medical Textile Fabrics

The Łukasiewicz Research Network – Textile Research Institute,

92-103 Łódź, 5/15 Brzezinska Str.,

phone 48 42 6163143, fax 48 42 6792638

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DETERMINATION OF ANTIMICROBIAL ACTIVITY REPORT

No. 32/1/ BME / 2019

Testing method: PN – EN ISO 20743 : 2013 – 10 Textiles – Determination of antibacterial activity of textile products.
Absorption method

Test ordered by: „TOPTEXTIL” sp. z o. o.; 30 – 415 Kraków, ul. Wadowicka 12

Testing material: Fabric: 32/1 Tkanina obiciowo meblowa KONGO – skład surowcowy: 100 %
Polipropylen;

Plan/procedure of the sampling: no

Confirmation of compliance with the specification or requirement: no

▪ Pre-treatment – no treatment

▪ Storage and testing conditions – room temperature

▪ Testing microorganism – *Staphylococcus aureus* (ATCC 6538), *Klebsiella pneumoniae* (ATCC 4352)

– Sampled and Delivered by customer (appropriate size, proper condition to test)

Test performed by: M. Sc. Maciej Piórkowski, M. Sc. Anna Tomczak – Kossakowska,

The date of receipt of the test items: 13.05.2019

Date of test performance: 14.05 ÷ 17.05.2019

Report authorized by:
M. Sc. Magdalena Kiwała

Laboratorium Badań
Włókienniczych Wyrobów Medycznych
KIEROWNIK

Kiwała
mgr Magdalena Kiwała

Report date: 20.05.2019

Results of Laboratory Tests: Value of antimicrobial activity for

32/1 Tkanina obiciowo meblowa KONGO – skład surowcowy: 100 % Polipropylen;

The name of bacteria species (strain number)	<i>Staphylococcus aureus</i> (ATCC 6538)	<i>Klebsiella pneumoniae</i> (ATCC 4352)
Inoculum concentration (bacterial suspension) the number of living bacteria CFU/ml	ok. $2,9 \times 10^5$	ok. $2,7 \times 10^5$
The growth on the control sample CFU/ml C_o – the number of the bacteria colonies received from the control sample after „0” contact time; C_t – the number of the bacteria colonies received from the control sample after „18h ÷ 24h” contact time;	$C_o - 2,7 \times 10^4$ $C_t - 5,7 \times 10^8$	$C_o - 8,3 \times 10^4$ $C_t - 2,3 \times 10^9$
The growth on the control sample F [log CFU] *F = $\lg C_t - \lg C_o$	4,31 $\lg C_o: -4,44$; $\lg C_t: -8,75$	4,44 $\lg C_o: -4,92$ $\lg C_t: -9,36$
The growth on the test sample CFU/ml T_o – the number of the bacteria colonies received from the test specimen after „0” contact time; T_t – the number of the bacteria colonies received from the test specimen after „18h ÷ 24h” contact time;	$T_o - 2,3 \times 10^4$ $T_t - 2,6 \times 10^4$	$T_o - 8,0 \times 10^4$ $T_t - 1,1 \times 10^7$
The growth on the test sample G [log CFU] $G = \lg T_t - \lg T_o$	0,05 $\lg T_o: -4,36$ $\lg T_t: -4,41$	2,15 $\lg T_o: -4,90$ $\lg T_t: -7,05$
Antibacterial activity value A if $C_o - T_o > 0$ $A = (\lg C_t - C_o) - (\lg T_t - \lg T_o)$	4,34	2,31
Measuring method	Plate count method	
Incubation time and temperature	22 h + 24 h + 24 h (37 ± 2) °C	

Evaluation criteria in accordance with EN ISO 20743 : 2013 Annex F

Efficacy of antibacterial property	Antibacterial value: A
Significant	$2 \leq A < 3$
Strong	$A \geq 3$

*The end of the report***Notes:**

1. The results refer only to the tested material.
2. The report includes 2 pages.
3. Neither of the parts of this report can be copied without written permission of the Head of the Laboratory; it is allowed to copy this report only as a whole document.

**Laboratorium Badań Surowców
i Wyróbów 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**

BM-904-11.1-G/12

Test Report no. 11.1.1 / 2012 / G / A

1. **Test ordered by:** „TOPTEXTIL” Sp. z o.o.,
30-415 Kraków, 12 Wadowicka Str.
2. **Name and description of tested material:** the sample: the upholstery fabric **KONGO**,
declared raw material: 100% olefin
3. **Date of receiving material for testing:** 2012-01-13
4. **Date of test performance:** 2012-01-19÷24
5. **Samples taken:** correct sample size taken by the Client
and delivered in appropriate state for testing
6. **Tests carried out according to:** methods presenting in testing table

Results of Laboratory Tests

see page 2/2

Test performed by: Ewa Matusiak

1. *Test results refer only to the tested material.*
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3. *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 result 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 $k=2$.*

Report date: 2012-01-26**Number of report copies:** 4**Test report handed to:**

- 1) TOPTEXTIL Sp. z o.o. - 2 copies,
- 2) Laboratory for Testing Textile Raw Materials and Fabrics (location: 5/15 Brzezińska str.) - 1 copy,
- 3) Laboratory for Testing Textile Raw Materials and Fabrics (location: 118 Gdańska str.) - 1 copy.

Report prepared by:

Zofia Mokwińska M.Sc. Eng

Person authorizing the Test Report:

Surname and name: Beata Witkowska, Ph. D.

Function: Technical Head of Laboratory

Signature:

inż. Beata Witkowska**INSTYTUT WŁOKIENNICTWA**
Laboratorium Badań Surowców
i Wyróbów Włókienniczych
92-103 Łódź, ul. Brzezińska 5/15
Siedziba Laboratorium
90-520 Łódź, ul. Gdańska 118

Test Report no. 11.1.1 / 2011 / G / A

Parameter	Value	Remarks
The mean value of maximum force, N: - warp - weft The mean value of elongation at maximum force, %: - warp - weft	1 300 ± 100 1 200 ± 0 28,5 ± 2,0 34,5 ± 0,0	PN-EN ISO 13934-1:2002 tensile tester Instron 3367, pre-tension - 5 N, number of testing specimens for each direction - 5, rate of extension - 100 mm/min, distance between clamps - 200 mm.
Seam slippage resistance, mm: <u>Warp</u> The mean value of seam slippage resistance for warp, mm - individual results, mm <u>Weft</u> The mean value of seam slippage resistance for weft, mm - individual results, mm	 4 ± 0 5; 4; 4; 4; 4 4 ± 0 3; 4; 4; 3; 4	PN-EN ISO 13936-2:2005 tensile tester Instron 3367, testing force - 180N, 100% PES sewing threads – 79 tex, the number of sewing needle - 110, the number of stitch - 32/100 mm.
Abrasion resistance, number of rubs color change after 3 000 rubs, grade of grey scale 1 specimen 2 specimen 3 specimen 4 specimen 5 specimen 5 specimen 5 specimen 5 specimen Total abrasion resistance (the lowest individual result)	 4 18 000 25 000 25 000 30 000 25 000 30 000 35 000 35 000 18 000	PN-EN ISO 12947-2:2000 +AC:2006 + PN-EN 14465:2005+A1:2007 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 breakdown: flat woven fabric - three threads are completely broken.		

According to standard PN-EN 14465:2005+A1:2007 "Textiles. Upholstery fabrics. Specification and methods of test", the testing upholstery fabric **KONGO** was classified:

- **Level A** in reference to the tensile strength (Level A: ≥ 600 N),
- **Level A** in reference to the seam slippage resistance (Level A: ≤ 4 mm),
- **Level B** in reference to the abrasion resistance (Level B: $12\ 000 \div 30\ 000$ rubs).

The end of the Test Report

Person authorizing the Test Report:

Laboratorium Badań Surowców
i Wyrobów Włókienniczych
siedziba ul Gdańska 118

[Signature]