

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

**TEST CERTIFICATE NO. BM 12.9.1.1 / 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 ARAGON, declared raw material composition: 100% Polyester**
3. **Date of receiving material for testing:** 2018-08-08
4. **Date of test performance:** 2018-08-29
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:** Danuta Ławniczak

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:** 2018-08-31

**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 Włóknienniczych  
Instytut Włókniennictwa

mgr inż. Jerzy Andrysiak

INSTYTUT WŁÓKNIENICTWA  
Laboratorium Badań Surowców  
i Włóknienniczych  
92-103 Łódź, ul. Brzezinska 5/15

**TEST CERTIFICATE NO. BM 12.9.1.1 / 2018 / B / A**

| Parameter  | Value  | Remarks   |
|--|--|---|
| <b>Seam slippage resistance, mm:</b><br><u>Warp</u><br><b>The mean value of seam slippage resistance for warp direction, mm</b><br>- individual results, mm<br><br><u>Weft</u><br><b>The mean value of seam slippage resistance for weft direction, mm</b><br>- individual results, mm | <br><br><br><b>5</b><br><br>5; 5,5; 4,5; 5; 5,5<br><br><br><br><br><b>5</b><br><br>5,5; 5; 4,5; 4,5; 5 | PN-EN ISO 13936-2:2005<br>the conditioned sample,<br>tensile machine: Hounsfield H50 KM,<br>testing force: 180 N,<br>100% PES sewing threads (74 ± 5) tex,<br>the number of sewing needle: 110<br>the number of stitch: 32±2/100 mm<br>rate of extension: 50 mm/min.<br>number of test specimens: 5 |
| <b>Evaluation:</b> according to PN-EN 14465:2005 + A1:2007<br>requirements level: A category: ≤ 4 mm; <b>B category: ≤ 6 mm;</b> C category: ≤ 8 mm  |  |   |

\_\_\_\_\_ 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 TEXTILE RAW MATERIALS AND FABRICS**  
**Testing Laboratory accredited by the Polish Centre for Accreditation**

**TEST CERTIFICATE NO. BM 12.9.1.2 / 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 ARAGON, declared raw material composition: 100% Polyester**
3. **Date of receiving material for testing:** 2018-08-08
4. **Date of test performance:** 2018-08-27÷30
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:** Danuta Ławniczak

1. *Test results refer only to the tested material.*
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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:** 2018-08-31

**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. Brzezińska 5/15

**TEST CERTIFICATE NO. BM 12.9.1.2 / 2018 / B / A**

| Parameter  |   | Value         | Remarks   |
|--|---|---------------|---|
| Abrasion resistance,<br>number of rubs   | color change<br>after 3 000 rubs,<br>grade of grey scale              | 4 - 5         | PN-EN ISO 12947-2:2017-02<br>+ PN-EN 14465:2005+A1:2007, Annex A<br>the conditioned sample,<br>the abradant: the standard woolen fabric,<br>the nominal pressure used in the test: 12 kPa,<br>magnification factor in the magnifying<br>device: 8.<br><u>Criterion of destruction of the testing<br/>specimens in accordance with that standard:</u><br>chenille fabric - chenille cover is completely<br>wiped |
|  | 1 specimen  | 45 000        |   |
|  | 2 specimen  | 45 000        |   |
|  | 3 specimen  | 45 000        |   |
|  | 4 specimen  | 45 000        |   |
|  | <b>Total abrasion resistance</b><br>(the lowest individual<br>result) | <b>45 000</b> |   |
| <b>Evaluation:</b> according to PN-EN 14465:2005 + A1:2007: <b>A category: number of rubs <math>\geq 35\ 000</math> rubs,</b><br><b>B category: number of rubs: <math>12\ 000 \div 20\ 000</math>,</b> <b>C category: number of rubs: <math>4\ 000 \div 10\ 000</math></b> |   |               |   |

\_\_\_\_\_ **The end of Test Certificate** \_\_\_\_\_

**Person authorizing the Test Certificate**

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



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

**TEST CERTIFICATE NO. BM 12.9.1.3 / 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 ARAGON, declared raw material composition: 100% Polyester**
3. **Date of receiving material for testing:** 2018-08-08
4. **Date of test performance:** 2018-08-22
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

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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:** 2018-08-31

**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 Wytwarzania Włóknienniczych  
Instytut Włókniennictwa  
mgr inż. Jerzy Andrysiak



INSTYTUT WŁÓKNIENICTWA  
Laboratorium Badań Surowców  
i Wytwarzania Włóknienniczych  
ul. Brzezinska 5/15

# TEST CERTIFICATE NO. BM 12.9.1.3 / 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: $415 \pm 2$ g; |
|   | 500                       | 4 - 5                           |  |
|   | 1 000                     | 4 - 5                           |  |
|   | 2 000                     | 4 - 5<br>Slight surface fuzzing |  |
|   | 5 000                     | 4 - 5                           |  |
| <u>Evaluation</u> 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

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



## Laboratory of Chemical Testing and Instrumental Analysis

92-103 Lodz, 5/15 Brzezinska Str.  
phone no. +48 42 6163130 (120, 128), fax +48 42 6163131  
e-mail: [jpiestrzeniewicz@iw.lodz.pl](mailto:jpiestrzeniewicz@iw.lodz.pl), [labchem@iw.lodz.pl](mailto:labchem@iw.lodz.pl)

Lodz, 30<sup>th</sup> August 2018

L-377/2018

### TEST CERTIFICATE no. BCH 350/819/2018/A

- Name and address of the principal:** „TOPTEXTIL” Sp. z o.o.  
12 Wadowicka Str., 30-415 Krakow
- Subject of study:** sample no. 1 – furniture upholstery fabric ARAGON, declared material composition: 100 % polyester
- Date of receiving sample for testing:** 10<sup>th</sup> August 2018
- Date of the tests conducting:** 14<sup>th</sup>-20<sup>th</sup> August 2018
- Sampling:** sample in a proper size, in a proper condition for research, supplied by the Customer

### RESULTS OF THE TESTS

| Tested feature                                      | Results of the test<br>[degree] |     | Reference<br>document            | Technical<br>specifications  | Level of requirements for<br>categories according to PN-<br>EN 14465:2005 + A1:2007 |     |       |
|---|---------------------------------|-----|----------------------------------|--|---|-----|-------|
|   |                                 |     |                                  |  | A   | B   | C     |
| Colour fastness to:<br>- dry rubbing: <sup>1)</sup> |                                 |     | PN-EN ISO<br>105-<br>X12:2016-08 | temperature of acclimatisation:<br>20 ± 2 °C<br>relative humidity: 65 ± 2 %<br>time of acclimatisation: 4 h<br>rubbing pick: Ø 16 ± 0,1 mm<br>push: 9 ± 0,2 N<br>degree of moisturising of fabric<br>to rubbing: 100 % | ≥ 4-5   | ≥ 4 | ≥ 3-4 |
| weft  | a/                              | 4   |                                  |  |   |     |       |
| warp  | a/                              | 4   |                                  |  |   |     |       |
| - wet rubbing: <sup>1)</sup>                        |                                 |     |                                  |  | ≥ 3-4   | ≥ 3 | ≥ 2-3 |
| weft  | a/                              | 4-5 |                                  |  |   |     |       |
| warp  | a/                              | 4-5 |                                  |  |   |     |       |

<sup>1)</sup> colour fastness according to “Grey scale”, indicator “5” means – no change in colour and in staining adjacent fabric, indicator “1” means – big change in colour  
a/ staining - the cotton rubbing fabric

#### Remarks:

- In accordance with ISO ILAC-IAF (January 2009) Communicate available on [www.pca.gov.pl](http://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.

#### Tests authorized by:

LABORATORIUM BADAŃ CHEMICZNYCH  
I ANALIZ INSTRUMENTALNYCH  
KIEROWNIK TECHNICZNY  
ds. Badań Chemicznych i Odporności Wyrobów

*K. Chylewska*  
mgr inż. Katarzyna Chylewska

Number of copies: 3

The test certificate receive:

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

Confirmed by:  
KIEROWNIK

mgr inż. Jerzy Piestrzeniewicz

**Laboratory of Chemical Testing  
and Instrumental Analysis**

92-103 Lodz, 5/15 Brzezinska Str.  
phone no. +48 42 6163130 (120, 128), fax +48 42 6163131  
e-mail: [jpiestrzeniewicz@iw.lodz.pl](mailto:jpiestrzeniewicz@iw.lodz.pl), [labchem@iw.lodz.pl](mailto:labchem@iw.lodz.pl)

Lodz, 30<sup>th</sup> August 2018

**L-377/2018**

**TEST CERTIFICATE no. BCH 350/819/2018/A**

- |   |  |
|---|--|
| <b>1. Name and address of the principal:</b>    | „TOPTEXTIL” Sp. z o.o.<br>12 Wadowicka Str., 30-415 Krakow   |
| <b>2. Subject of study:</b>                     | sample no. 1 – furniture upholstery fabric ARAGON, declared<br>material composition: 100 % polyester |
| <b>3. Date of receiving sample for testing:</b> | 10 <sup>th</sup> August 2018   |
| <b>4. Date of the tests conducting:</b>         | 14 <sup>th</sup> -28 <sup>th</sup> August 2018   |
| <b>5. Sampling:</b>                             | sample in a proper size, in a proper condition for research, supplied by<br>the Customer             |

**RESULTS OF THE TESTS**

| Tested feature  | Results of the test<br>[degree] | Reference<br>document                     | Technical<br>specifications   | Level of requirements for<br>categories according to PN-<br>EN 14465:2005 + A1:2007 |     |     |
|---|---------------------------------|---|---|---|-----|-----|
|   |                                 |   |   | A   | B   | C   |
| Colour fastness to:<br>- artificial light <sup>1)</sup> | a/ 5-6                          | PN-EN ISO 105-<br>B02:2014-11<br>Method 2 | device: Xenotest Alpha +<br>light conditions: A1<br>sample rotation was not applied | ≥ 6   | ≥ 5 | ≥ 4 |

<sup>1)</sup> colour fastness according to “Blue scale”, indicator “8” means – no change in colour, indicator “1” means – big change in colour  
a/ change of colour

**Remarks:**

- In accordance with ISO ILAC-IAF (January 2009) Communicate available on [www.pca.gov.pl](http://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.

**Tests authorized by:**

LABORATORIUM BADAŃ CHEMICZNYCH  
I ANALIZ INSTRUMENTALNYCH  
KIEROWNIK TECHNICZNY  
ds. Badań Chemicznych i Odporności Wybarwień  
*K. Chylewska*  
mgr inż. Katarzyna Chylewska

**Confirmed by:**

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

Number of copies: 3

The test certificate receive:

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



**TEST CERTIFICATE ON FLAMMABILITY TESTING OF UPHOLSTERY COMPOSITE**

**No 353 / BP / 18**

**Test method:**

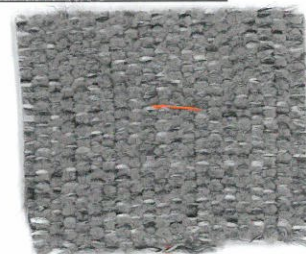
PN-EN 1021-1:2014-12 Furniture. Assessment of the ignitability of upholstered furniture. Part 1: Ignition source smouldering cigarette.

**Orderer:**

„TOPTEXTIL” Sp. z o.o.  
ul. Wadowicka 12  
30-415 Kraków

**Subject of testing:**

Upholstery composite:  
- upholstery fabric named ARGON, composition: 100% Polyester  
- T-3037 polyurethane foam, self-extinguished  
Testing sample with the correct size, in appropriate state for testing,  
supplied by the Orderer with its characteristic and without the Sampling Protocol.

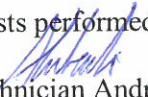


WŁÓKIENNICTWA  
LABORATORIUM  
W PALNOŚCI WYROBÓW  
Łódź, 118, 90-520 Łódź

**Results of testing:**

| Standard             | Test method                               | Result   |
|----------------------|---|--|
| PN-EN 1021-1:2014-12 | Ignition source:<br>smouldering cigarette | <b>Neither progressive smouldering ignition<br/>nor flaming ignition occurred.</b> |

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

Test Certificate authorized by

Laboratorium Badań Palności WYROBÓW  
KIEROWNIK

  
mgr Inż. Małgorzata Szejna  
12.09.2018

Sample received on: 10.08.2018  
Test performed on: 11.09.2018

**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.

**DETAILED TESTING RESULTS**Climate conditions: temperature  $(23 \pm 2)$  °C; humidity  $(50 \pm 5)$  %; time 24 h

Testing conditions: temperature 22 °C; humidity 49 %

**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 ARGON, composition: 100% Polyester
- T-3037 polyurethane foam, self-extinguished

| Criteria             |  | Cigarette |    |   | Remarks  |
|----------------------|--|-----------|----|---|--|
|                      |  | 1         | 2  | 3 |  |
| Smouldering criteria | Unsafe escalating combustion                         | NO        | NO | - | Maximum cigarette smouldering time:<br><br>16 minutes 40 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                            |
|                      |  |           |    |   | 69 13 18 67 17 12  |

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

END OF THE TEST CERTIFICATE





**TEST CERTIFICATE ON FLAMMABILITY TESTING OF UPHOLSTERY COMPOSITE**

**No 353 / BP / 18**

**Test method:**

PN-EN 1021-1:2014-12 Furniture. Assessment of the ignitability of upholstered furniture. Part 1: Ignition source smouldering cigarette.

**Orderer:**

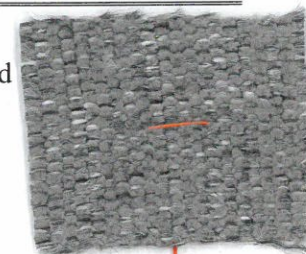
„TOPTEXTIL” Sp. z o.o.  
ul. Wadowicka 12  
30-415 Kraków

**Subject of testing:**

Upholstery composite:

- upholstery fabric named ARGON, composition: 100% Polyester
- T-3037 polyurethane foam, self-extinguished

Testing sample with the correct size, in appropriate state for testing,  
supplied by the Orderer with its characteristic and without the Sampling Protocol.



INSTYTUT WŁÓKNI  
LABORATORIUM  
BADAŃ PALNOŚCI  
ul. Gdańska 11  
Łódź

**Results of testing:**

| Standard             | Test method                               | Result   |
|----------------------|---|--|
| PN-EN 1021-1:2014-12 | Ignition source:<br>smouldering cigarette | <b>Neither progressive smouldering ignition<br/>nor flaming ignition occurred.</b> |

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:

*Andrzej Kubacki*  
technician Andrzej Kubacki

Test Certificate authorized by

Laboratorium Badań Palności Wyrobów  
**KIEROWNIK**

*mgr Inż. Małgorzata Szejna*  
12.09.2018

Sample received on: 10.08.2018  
Test performed on: 11.09.2018

**NOTES:**

- The Testing results refer only to the tested sample.
- Test Certificate consists of 2 pages.
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- The Orderer using this Test Certificate is responsible for the conformity between the product and sample submitted for testing.

**DETAILED TESTING RESULTS**Climate conditions: temperature  $(23 \pm 2) ^\circ\text{C}$ ; humidity  $(50 \pm 5) \%$ ; time 24 hTesting conditions: temperature  $22 ^\circ\text{C}$ ; humidity 49 %**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 ARGON, composition: 100% Polyester
- T-3037 polyurethane foam, self-extinguished

| Criteria             |  | Cigarette |    |   | Remarks  |
|----------------------|--|-----------|----|---|--|
|                      |  | 1         | 2  | 3 |  |
| Smouldering criteria | Unsafe escalating combustion                         | NO        | NO | - | Maximum cigarette smouldering time:<br><br>16 minutes 40 seconds |
|                      | Test assembly consumed                               | NO        | NO | - |  |
|                      | Smoulders to extremities                             | NO        | NO | - |  |
|                      | Smoulders through thickness                          | NO        | NO | - |  |
|                      | Smoulders more than 1 hour                           | NO        | NO | - |  |
|                      | In final examination, presence of active smouldering | NO        | NO | - | Maximum upholstery composite destruction:                        |
| Flaming criteria     | Occurrence of flames                                 | NO        | NO | - | horizontal [mm]  |
|                      |  |           |    |   | vertical [mm]  |
|                      |  |           |    |   | length width depth length width depth                            |
|                      |  |           |    |   | 69 13 18 67 17 12  |

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

END OF THE TEST CERTIFICATE

uy



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

**TEST CERTIFICATE NO. BM 132 / 2019 / G / A**

1. **Test ordered by:** TOPTEXTIL Sp. z o.o.  
30-415 Kraków, ul. Wadowicka 12
2. **Name and description of tested material:** sample - **the upholstery product ARAGON,**  
**declared raw materials: 100% Polyester**
3. **Date of receiving material for testing:** 2019-03-01
4. **Date of test performance:** 2019-03-02
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:** Olga Prokop M.Sc. Eng

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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:** 2019-03-04

**Number of Certificate copies:** 4

**Test Certificate 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.

**Certificate prepared by:**

Zofia Mokwińska M.Sc. Eng

**Person authorizing the Test Certificate:**

Surname and name: Beata Witkowska, Ph. D.

Function: Head of Laboratory

Signature: *Beata Witkowska*

*dr inż. Beata Witkowska*

**INSTYTUT WŁÓKIENICTWA**  
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# TEST CERTIFICATE NO. BM 132 / 2019 / G / A

| Parameter                               | Value          | Remarks   |
|---|----------------|---|
| <u>Tear strength</u>                    |                | PN-EN ISO 13937-3:2002                              |
| <b>The mean value of tear force, N:</b> |                | tensile tester - Zwick 1120                         |
| - warp                                  | <b>132 ± 4</b> | number of testing specimens for each direction - 5, |
| - weft                                  | <b>38 ± 1</b>  | rate of extension - 100 mm/min                      |
| Variation coefficient, %                |                |   |
| - warp                                  | <b>3,8</b>     |   |
| - weft                                  | <b>3,0</b>     |   |

According to standard PN-EN 14465:2005+A1:2007 "Textiles. Upholstery fabrics. Specification and methods of test", the upholstery product ARAGON, declared raw materials: 100% Polyester was classified as:

- the Level B in reference to the tear strength (Level B:  $\geq 30$  N).

\_\_\_\_\_ The end of Test Certificate \_\_\_\_\_

Person authorizing the Test Certificate

Laboratorium Badań Surowców  
i Wyrabów Włókienniczych  
**KIEROWNIK**

*[Signature]*  
dr inż. Beata Witkowska