

RIF Ametist  
2-y Pyatiletki  
140730 Roshal  
RUSSIAN FEDERATION

## Hohenstein Textile Testing Institute GmbH & Co. KG

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### Certification Body Oeko-Tex®

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Our ref.  
NAß/gön/MFO

Date  
5. December 2018

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## Report No. 18.0.55126

(= 18.HRU.55126 ZN)

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**Applicant:** RIF Ametist  
2-y Pyatiletki  
140730 Roshal  
RUSSIAN FEDERATION

**Date of order:** 10/9/2018

**Contact person:** Mr Sergey Sushkov  
Tel: +7 9165 00542 8  
Email: SushkovSV@foamline.com

**Receipt of order:** 10/16/2018

**Receipt of material:** 10/16/2018

**Receipt of further information:** 10/23/2018 Recipe  
11/22/2018 Payment in advance

**Details of order:** Certification of textile products with the label "OEKO-TEX® Confidence In Textiles – STANDARD 100 – Tested for harmful substances Appendix 4"

*The report comprises 10 pages.*

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Our terms of business shall apply:  
[www.hohenstein.de/pdf/agb\\_e.pdf](http://www.hohenstein.de/pdf/agb_e.pdf)

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VAT REG No.  
DE262079343

Hohenstein Textile Testing Institute GmbH & Co. KG · County Court Stuttgart HRA 723464  
Personally liable associate: Hohenstein Verwaltungs GmbH · County Court Stuttgart HRB 752904  
CEO: Dr. Stefan Droste · Company Headquarter is Bönnigheim

The application for certification was submitted using the relevant forms issued for this purpose.

The applicant enclosed the declaration of conformity.

The originals of all necessary documents have been signed with a legally binding signature.

The orderer confirmed that no biological active product is used.

Further the orderer confirmed that no flame retardant product is used.

A list of dyestuffs and finishing auxiliaries is appended to the documents.

Exact dyeing recipes for the samples are provided by the orderer.

The application was made for the following article group:

Ether based polyurethane foams (standard, high-resilience, visco-elastic) in white and reactive dyed, tested height 200mm.

The four product categories specified in STANDARD 100 by OEKO-TEX® are described as follows:

| Product-class | Definition  |
|---------------|---|
| I             | <b>Products for babies</b><br>Products for babies in context with this standard are all articles, basic materials and accessories, which are provided for the production of articles for babies and children up to 36 months.   |
| II            | <b>Products with direct contact to skin</b><br>Skin contact articles are those which are worn with a large part of their surface in direct contact with the skin (e.g. blouses, shirts, underwear etc.).  |
| III           | <b>Products without direct contact to skin</b><br>No skin contact articles are those which are worn with only a little part of their surface in direct contact with the skin (e.g. stuffings, linings etc.).  |
| IV            | <b>Decoration material</b><br>Decoration material in context with this standard are all articles including initial products and accessories which are used for decoration such as table clothes, wall coverings, furnishing fabrics and curtains, upholstery fabrics and floor coverings. |

According to the information provided by the orderer and to the specified area of use, product class I is applicable.

The test material named below was submitted for testing.

| Serial No. | Description of article or material | Additional information |             |            |        |        | Material composition |
|------------|------------------------------------|------------------------|-------------|------------|--------|--------|----------------------|
|            |                                    | Quality                | Article No. | Colour No. | Design | Colour |                      |
| 1          | foam                               | standard foam          | EL2240      |            |        | yellow | PUR                  |
| 2          | foam                               | standard foam          | S3530       |            |        | rose   | PUR                  |

| Serial No. | Description of article or material | Additional information |             |            |        |                       | Material composition |
|------------|------------------------------------|------------------------|-------------|------------|--------|-----------------------|----------------------|
|            |                                    | Quality                | Article No. | Colour No. | Design | Colour                |                      |
| 3          | foam                               | standard foam          | ST3040      |            |        | light blue            | PUR                  |
| 4          | foam                               | high-resilience foam   | HR3535      |            |        | white                 | PUR                  |
| 5          | foam                               | high-resilience foam   | HR3535      |            |        | rose                  | PUR                  |
| 6          | foam                               | high-resilience foam   | HR3530      |            |        | violet                | PUR                  |
| 7          | foam                               | high-resilience foam   | HR3530      |            |        | olive                 | PUR                  |
| 8          | foam                               | visco-elastic foam     | LR5014      |            |        | raw white             | PUR                  |
| 9          | foam                               | visco-elastic foam     | LR4509PG    |            |        | light blue, dark blue | PUR                  |
| 10         | foam                               | visco-elastic foam     | LR5014      |            |        | light grey            | PUR                  |
| 11         | foam                               | visco-elastic foam     | LR4020P     |            |        | black                 | PUR                  |

If only parts of certain articles were included in the tests, only these parts are named in the list of materials.

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## TEST RESULT/S

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Tests were carried out in accordance with STANDARD 100 by OEKO-TEX® Appendix 4.

The test results are given in the charts below.

Note: n.d. = not detectable (below quantification limit)

| sample  | pH                           |                               |                                |                               |
|---|------------------------------|-------------------------------|--------------------------------|-------------------------------|
| 2 foam rose   | 6,0                          |                               |                                |                               |
| 6 foam violet   | 5,6                          |                               |                                |                               |
| 10 foam light grey                                    | 6,9                          |                               |                                |                               |
| <b>limit values acc. to STANDARD 100 by OEKO-TEX®</b> | product class I<br>4,0 – 7,5 | product class II<br>4,0 – 7,5 | product class III<br>4,0 – 9,0 | product class IV<br>4,0 – 9,0 |

| sample  | formaldehyde<br>in mg/kg (ppm) |                        |                          |                         |
|---|--------------------------------|------------------------|--------------------------|-------------------------|
| 3 foam light blue                                     | n.d.                           |                        |                          |                         |
| 7 foam olive  | n.d.                           |                        |                          |                         |
| 11 foam black   | n.d.                           |                        |                          |                         |
| <b>limit values acc. to STANDARD 100 by OEKO-TEX®</b> | product class I<br>n.d.        | product class II<br>75 | product class III<br>300 | product class IV<br>300 |

Note:

According to Japanese Law 112 "n.d." corresponds with an absorption unit < 0,05 respectively < 16 ppm.

| sample   | extractable heavy metals<br>in mg/kg (ppm) |               |                  |               |                |              |                   |                  |               |
|--|--|---------------|------------------|---------------|----------------|--------------|-------------------|------------------|---------------|
|  | Sb<br>antimony                             | As<br>arsenic | Pb<br>lead       | Cd<br>cadmium | Cr<br>chromium | Co<br>cobalt | Cu<br>copper      | Ni<br>nickel     | Hg<br>mercury |
| 1 foam yellow  | < 4  | < 0,1         | < 0,1            | < 0,05        | < 0,1          | < 0,1        | < 4               | < 0,1            | < 0,01        |
| 9 foam light blue, dark blue                                     | < 4  | < 0,1         | < 0,1            | < 0,05        | < 0,1          | < 0,1        | < 4               | < 0,1            | < 0,01        |
| <b>limit values acc. to STANDARD 100 by OEKO-TEX® Appendix 4</b> |  |               |                  |               |                |              |                   |                  |               |
| <b>product class I</b>   | 30   | 0,2           | 0,2              | 0,1           | 1,0            | 1,0          | 25,0 <sup>2</sup> | 1,0 <sup>3</sup> | 0,02          |
| <b>product class II</b>  | 30   | 1,0           | 1,0 <sup>1</sup> | 0,1           | 2,0            | 4,0          | 50,0 <sup>2</sup> | 4,0 <sup>4</sup> | 0,02          |
| <b>product class III</b>   | 30   | 1,0           | 1,0 <sup>1</sup> | 0,1           | 2,0            | 4,0          | 50,0 <sup>2</sup> | 4,0 <sup>4</sup> | 0,02          |
| <b>product class IV</b>  | --   | 1,0           | 1,0 <sup>1</sup> | 0,1           | 2,0            | 4,0          | 50,0 <sup>2</sup> | 4,0 <sup>4</sup> | 0,02          |

Notes:

A Test after mechanical ageing (EN 12472)

<sup>1</sup> No requirement for accessories made from glass

<sup>2</sup> No requirement for accessories and yarns made from inorganic materials, respecting the requirements regarding biological active products.

<sup>3</sup> For metallic accessories and metallized surfaces: 0,5 mg/kg

<sup>4</sup> For metallic accessories and metallized surfaces: 1,0 mg/kg

| sample  | heavy metals in digested sample (total content)<br>in mg/kg (ppm) |            |
|---|---|------------|
|   | Cd<br>cadmium   | Pb<br>lead |
| 2 foam rose   | <5  | <5         |
| 6 foam violet   | <5  | <5         |
| 7 foam olive  | <5  | <5         |
| 11 foam black   | <5  | <5         |
| limit values acc. to<br>STANDARD 100 by<br>OEKO-TEX® Appendix 4<br>product class I - IV | 40  | 90         |

| sample  | phenol and chlorinated phenols<br>in mg/kg (ppm) |                   |                     |
|---|--|-------------------|---------------------|
|   |  | product class I   | product class II-IV |
| 5 foam rose   | n.d.   |                   |                     |
| 10 foam light grey  | n.d.   |                   |                     |
| limit values acc. to<br>STANDARD 100 by<br>OEKO-TEX® Appendix 4 | Pentachlorophenol (PCP)                          | 0,05              | 0,50                |
|   | Tetrachlorophenols (TeCP)                        | 0,05 <sup>1</sup> | 0,50 <sup>1</sup>   |
|   | Trichlorophenols (TrCP)                          | 0,20 <sup>1</sup> | 2,00 <sup>1</sup>   |
|   | Dichlorophenols (DCP)                            | 0,50 <sup>1</sup> | 3,00 <sup>1</sup>   |
|   | Monochlorophenols (MCP)                          | 0,50 <sup>1</sup> | 3,00 <sup>1</sup>   |
|   | o-Phenylphenol (OPP)                             | 10                | 25                  |
|   | Phenol   | 20                | 50                  |

Notes:

<sup>1</sup> sum of isomers

| sample   | free and cleavable cancerogenic arylamines,<br>free and cleavable aniline in mg/kg (ppm) |  |
|--|--|--|
|  |  |  |
| 6 foam violet  | n.d.   |  |
| 7 foam olive   | n.d.   |  |
| 11 foam black  | n.d.   |  |
| limit value acc. to<br>STANDARD 100 by<br>OEKO-TEX® Appendix 4<br>product class I - IV | each < 20<br>aniline 100   |  |

| sample  | quinoline<br>in mg/kg (ppm) |
|---|-----------------------------|
| composite sample<br>5 foam rose<br>11 foam black              | n.d.                        |
| <b>limit values acc. to<br/>STANDARD 100 by<br/>OEKO-TEX®</b> | <b>under observation</b>    |

| sample   | chlorinated benzenes and toluenes<br>in mg/kg (ppm) |
|--|---|
| 4 foam white   | n.d.  |
| <b>limit value acc. to<br/>STANDARD 100 by<br/>OEKO-TEX®</b> | <b>product class I - IV<br/>sum 1,0</b>             |

| sample  | colour fastness |           |                 |           |            |           |                                |
|---|-----------------|-----------|-----------------|-----------|------------|-----------|--------------------------------|
|   | to water        |           | to perspiration |           |            |           | to dry<br>rubbing <sup>1</sup> |
|   |                 |           | alkaline        |           | acid       |           |                                |
| 3 foam light blue   | PES<br>5        | CO<br>5   |                 |           |            |           |                                |
| 6 foam violet   | PES<br>4-5      | CO<br>4-5 |                 |           |            |           |                                |
| 7 foam olive  |                 |           | PES<br>4-5      | CO<br>4-5 | PES<br>4-5 | CO<br>4-5 |                                |
| 9 foam light blue, dark<br>blue                               | PES<br>5        | CO<br>5   |                 |           |            |           |                                |
| 10 foam light grey  |                 |           | PES<br>4-5      | CO<br>4-5 | PES<br>4-5 | CO<br>4-5 |                                |
| <b>limit values acc. to<br/>STANDARD 100 by<br/>OEKO-TEX®</b> |                 |           |                 |           |            |           |                                |
| <b>product class I</b>  | <b>3-4</b>      |           | <b>3-4</b>      |           | <b>3-4</b> |           | <b>4 (3<sup>2</sup>)</b>       |
| <b>product class II - IV</b>                                  | <b>3</b>        |           | <b>3-4</b>      |           | <b>3-4</b> |           | <b>4 (3<sup>2</sup>)</b>       |

Notes:

<sup>1</sup> No requirements for "wash-out" articles.

<sup>2</sup> For pigment, vat or sulphurous colorants a minimum grade of colour fastness to rubbing of 3 is acceptable.

Evaluation of colour fastness (in accordance with the fastness scale prescribed under ISO 105):

5 = best result, 1 = worst result

CO = cotton, WO = wool, CV = viscose, SE = silk, PES = polyester, PA = polyamide,  
PAN = polyacrylonitrile (acrylic), CA = acetate

| sample   | colour fastness to saliva and perspiration |
|--|--|
| 3 foam light blue                                    | fast                                       |
| 5 foam rose  | fast                                       |
| 6 foam violet  | fast                                       |
| 7 foam olive   | fast                                       |
| 9 foam light blue, dark blue                         | fast                                       |
| 11 foam black  | fast                                       |
| <b>limit value acc. to STANDARD 100 by OEKO-TEX®</b> | <b>product class I<br/>fast</b>            |

| sample   | organo tin compounds<br>in mg/kg (ppm)                        |   |
|--|---|---|
| 2 foam rose  | n.d.  |   |
| 10 foam light grey   | n.d.  |   |
| <b>limit values acc. to STANDARD 100 by OEKO-TEX® Appendix 4</b> | <b>product class I<br/>0,5<sup>1</sup> or 1,0<sup>1</sup></b> | <b>product class II - IV<br/>1,0<sup>1</sup> or 2,0<sup>1</sup></b> |

Notes:

<sup>1</sup>Compilation of the individual substances are listed in STANDARD 100 by OEKO-TEX® Appendix 4

| sample  | plasticizers (phthalates)<br>in %       |
|---|---|
| 4 foam white  | n.d.                                    |
| <b>limit values acc. to STANDARD 100 by OEKO-TEX® Appendix 4<br/>product class I - III<br/>product class IV</b> | <b>sum 0,1<br/>sum without DINP 0,1</b> |

| sample  | Bisphenol A<br>in % |
|---|---------------------|
| 4 foam white  | n.d.                |
| <b>limit values acc. to STANDARD 100 by OEKO-TEX® Appendix 4<br/>product class I - IV</b> | <b>0,1</b>          |

| sample  | Tris(2-chloroethyl)phosphate (TCEP)<br>in % |
|---|---|
| 4 foam white  | n.d.  |
| limit values acc. to<br>STANDARD 100 by<br>OEKO-TEX® Appendix 4<br>product class I - IV | 0,1   |

| sample   | emission of volatiles<br>in mg/m <sup>3</sup> |         |                       |                              |           |               |                          |                     |
|--|---|---------|-----------------------|------------------------------|-----------|---------------|--------------------------|---------------------|
|  | toluene                                       | styrene | vinyl-<br>cyclohexene | 4-phenyl<br>-<br>cyclohexene | butadiene | vinylchloride | aromatic<br>hydrocarbons | organic<br>volatile |
| 3 foam light blue  | < 0,002                                       | < 0,002 | < 0,002               | < 0,002                      | --        | --            | < 0,002                  | < 0,002             |
| limit values acc. to<br>STANDARD 100 by<br>OEKO-TEX®<br>product class I - IV | 0,1   | 0,005   | 0,002                 | 0,03                         | 0,002     | 0,002         | 0,3                      | 0,5                 |

| sample  | polycyclic aromatic hydrocarbons (PAH)<br>in mg/kg (ppm) |                 |                     |
|---|--|-----------------|---------------------|
| composite sample<br>5 foam rose<br>11 foam black                | n.d.   |                 |                     |
| limit values acc. to<br>STANDARD 100 by<br>OEKO-TEX® Appendix 4 |  | product class I | product class II-IV |
|   | Benzo[a]pyrene   | 0,5             | 1,0                 |
|   | Benzo[e]pyrene   | 0,5             | 1,0                 |
|   | Benzo[a]anthracene                                       | 0,5             | 1,0                 |
|   | Chrysene   | 0,5             | 1,0                 |
|   | Benzo[b]fluoranthene                                     | 0,5             | 1,0                 |
|   | Benzo[j]fluoranthene                                     | 0,5             | 1,0                 |
|   | Benzo[k]fluoranthene                                     | 0,5             | 1,0                 |
|   | Dibenzo[a,h]anthracene                                   | 0,5             | 1,0                 |
|   | <u>and</u><br>sum of all 24 PAH:                         | 5,0             | 10,0                |

| sample  | Nonylphenol, Octylphenol and specific Alkylphenoethoxylates<br>in mg/kg (ppm) |   |
|---|---|---|
|   | NP / OP / HpP / PeP   | NP / OP / HpP / PeP / NP (EO) / OP (EO) |
| 4 foam white  | n.d.  | n.d.                                    |
| 9 foam light blue, dark<br>blue   | n.d.  | n.d.                                    |
| limit values acc. to<br>STANDARD 100 by<br>OEKO-TEX® Appendix 4<br>product class I - IV | sum<br><10,0  | sum<br><100,0                           |



| sample  | Solvent residues                    |                                      |                                 |           |
|---|-------------------------------------|--------------------------------------|---------------------------------|-----------|
|   | in %                                |                                      |                                 |           |
|   | NMP<br>(1-Methyl-<br>2-pyrrolidone) | DMAc<br>(N,N-Dimethyl-<br>acetamide) | DMF<br>(Dimethyl-<br>formamide) | Formamide |
| 1 foam yellow   | n.d.                                | n.d.                                 | n.d.                            | n.d.      |
| 6 foam violet   | n.d.                                | n.d.                                 | n.d.                            | n.d.      |
| limit values acc. to<br>STANDARD 100 by<br>OEKO-TEX® Appendix 4<br>product class I - IV | 0,1                                 | 0,1                                  | 0,1                             | 0,02      |

| sample  | odour test<br>according to SNV 195 651 (modified)   |
|---|---|
| 8 foam raw white                                    | 2-3   |
| limit value acc. to<br>STANDARD 100 by<br>OEKO-TEX® | product class I - IV<br>3<br><br>Grade scale: 1 odourless, 2 weak odour, 3 medium odour,<br>4 strong odour, 5 very strong odour |

| sample  | odour test                              |
|---|---|
| 1 - 11  | n.d.                                    |
| limit value acc. to<br>STANDARD 100 by<br>OEKO-TEX® | product class I-IV<br>no abnormal odour |

## CONCLUSION

The material for which the certification was applied fulfils the specific requirements for product class I of STANDARD 100 by OEKO-TEX® Appendix 4.

The certification of the following article group is approved:

Ether based polyurethane foams (standard, high-resilience, visco-elastic) in white and reactive dyed, tested height 200mm.

Each holder of certificate has signed for the quality of his articles on his own responsibility. This is in accordance with the given declaration of conformity. He is committed to ensure this by suitable and sufficient spot checks. This commitment includes the quality of bought materials, too. In the case of delegating parts of this quality assurance to others the certifying body must be fully acquainted (see point 4 "Conformity declaration").

Oeko-Tex® is authorized to carry out spot checks in order to inspect the certified goods. The certificate holder will receive a separate test report with the results of these inspections.

If the spot checks reveal a deviation from the limit values, additional tests will have to be carried out. The relevant costs will be charged to the certificate holder.

The actual version of STANDARD 100 by OEKO-TEX® is edition 01/2018. It can be downloaded directly from the Oeko-Tex® Homepage (<http://www.oeko-tex.com>).

Head of Department Oeko-Tex®



Dipl.-Ing. (FH) Elisabeth Panian



Assistant Head of Department Oeko-Tex®



Dipl.-Ing. (FH) Ivonne Schramm

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