

**Registered**

GUANGDONG CHUNXIA NEW MATERIALS TECH  
CO., LTD  
No.1, Makeng New zone,  
Xinmalian, Dalang Town,  
Dongguan City, Guangdong 523797  
China

**Your Reference**

**Customer Number** 13294  
**Contact Person** Wan Yungang  
**E-Mail** 316700020@qq.com

Zurich / 31.01.2023 / chnd

**Test Report BJ001 214317.1****Application**

7. Renewal of certificate BEAO 112281 - OEKO-TEX® STANDARD 100, Product Class I, Annex 4

**Test Material**

3 samples of PES/EL knitted interlining, 100% PES non-woven interlining, CO/PES non-woven embroidery backing, all in white, with or without hot-melt adhesive powder, 1 sample of heat treatment process

**Issuing**

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**TESTEX AG**

Swiss Textile Testing Institute



**Faisal Rizal**

Ecology Team Leader



**Chantal Ndongo**

Ecology Advisor

cc: TESTEX Beijing

Annex:

Certificate BEAO 112281 valid to 28.02.2024



## 1 Summary

The results of this test report can be used as basis for an OEKO-TEX® certification.

## 2 Overview

p: tested and passed; x: tested and failed; ' ': not tested

|                                                               | Sample |   |   |   |
|---------------------------------------------------------------|--------|---|---|---|
|                                                               | 1      | 2 | 3 | 4 |
| pH-Value<br>OEKO-TEX® Method 1 (ISO 3071:2020 - KCl)          |        | p | p | p |
| Formaldehyde<br>OEKO-TEX® Method 2 - JIS L-1041               |        |   | p | p |
| Heavy Metals<br>OEKO-TEX® Method 3.1 (Extract)                |        |   | p | p |
| Heavy Metals<br>OEKO-TEX® Method 3.2 (Digestion)              | p      | p |   |   |
| Pesticides<br>OEKO-TEX® Method 4                              |        |   | p |   |
| Chlorinated Phenols and OPP<br>OEKO-TEX® Method 5             |        | p | p |   |
| Plasticisers<br>OEKO-TEX® Method 6                            | p      | p |   |   |
| Organic Tin Compounds<br>OEKO-TEX® Method 7                   | p      | p | p |   |
| Azo Dyes<br>OEKO-TEX® Method 11.1 (direct)                    | p      |   |   |   |
| Chlorinated Benzenes & Toluenes<br>OEKO-TEX® Method 12        | p      | p | p |   |
| Polycyclic Aromatic Hydrocarbons (PAH)<br>OEKO-TEX® Method 13 | p      | p | p |   |

|                                                                            |   |   |   |  |
|----------------------------------------------------------------------------|---|---|---|--|
| Solvent Residues<br>OEKO-TEX® Method 14                                    | p | p |   |  |
| Surfactants, Wetting Agent Residues<br>OEKO-TEX® Method 15                 | p | p | p |  |
| N-Nitrosamines & N-Nitrosatable Substances<br>OEKO-TEX® Method Nitrosamine | p |   |   |  |
| Phenol<br>OEKO-TEX® Method 5.1                                             | p |   |   |  |

- 1: PES/EL knitted interlining hot-melt adhesive white
- 2: 100% PES non-woven interlining hot-melt adhesive white
- 3: CO/PES non-woven embroidery backing white
- 4: PES+PES/EL interlining heat treatment process white

### 3 Scope Of Application

An application with the appropriate OEKO-TEX® forms was submitted for  
**Polyester/spandex knitted interlining, white, with hot-melt adhesive powder**  
**100% polyester non-woven interlining, white, with hot-melt adhesive powder**  
**Cotton/polyester non-woven embroidery backing, white.**

The application is for the 7. Renewal of certificate BEAO 112281 - OEKO-TEX® STANDARD 100, Product Class I, Annex 4.

### 4 Samples

| No. | Receipt    | Sample Identification                                     |
|-----|------------|-----------------------------------------------------------|
| 1   | 30.12.2022 | PES/EL, knitted interlining, hot-melt adhesive, white     |
| 2   | 30.12.2022 | 100% PES, non-woven interlining, hot-melt adhesive, white |
| 3   | 30.12.2022 | CO/PES, non-woven embroidery backing, white               |
| 4   | 30.12.2022 | PES+PES/EL, interlining, heat treatment process, white    |

(Unless otherwise stated samples are provided by the customer.)

## 5 Photo Overview

#1



PES/EL knitted interlining hot-melt adhesive white

#2



100% PES non-woven interlining hot-melt adhesive white

#3



CO/PES non-woven embroidery backing white

#4



PES+PES/EL interlining heat treatment process white

## 6 Tests Performed / Results

As required in the OEKO-TEX® STANDARD 100 the test program is decided by the institute based on the article group, the requested product class and on the technical information given in the application form. Required tests are carried out according to OEKO-TEX®STANDARD 100 and the testing procedure laid down in "OEKO-TEX® STANDARD 100-Testing Procedures".

|                                                             |      | OEKO-<br>TEX®<br>STANDARD<br>100 Product<br>Class I<br>Annex 4 | #2<br>100% PES<br>non-woven<br>interlining<br>hot-melt<br>adhesive<br>white | #3<br>CO/PES<br>non-woven<br>embroidery<br>backing<br>white | #4<br>PES+PES/EL<br>interlining<br>heat<br>treatment<br>process<br>white |
|-------------------------------------------------------------|------|----------------------------------------------------------------|-----------------------------------------------------------------------------|-------------------------------------------------------------|--------------------------------------------------------------------------|
| <b>pH-Value</b><br>OEKO-TEX® Method 1 (ISO 3071:2020 - KCl) |      |                                                                |                                                                             |                                                             |                                                                          |
| Number of Tests<br>• Aqueous extract                        | [pH] | >=4.0 <=7.5                                                    | 2<br>6.1                                                                    | 2<br>5.7                                                    | 2<br>7.3                                                                 |

|                                                        |         | OEKO-<br>TEX®<br>STANDARD<br>100 Product<br>Class I<br>Annex 4 | #3<br>CO/PES<br>non-woven<br>embroidery<br>backing<br>white | #4<br>PES+PES/EL<br>interlining<br>heat treatment<br>process<br>white |
|--------------------------------------------------------|---------|----------------------------------------------------------------|-------------------------------------------------------------|-----------------------------------------------------------------------|
| <b>Formaldehyde</b><br>OEKO-TEX® Method 2 - JIS L-1041 |         |                                                                |                                                             |                                                                       |
| Number of Tests<br>• Free formaldehyde                 | [mg/kg] | <16                                                            | 1<br><16                                                    | 1<br><16                                                              |

|                                                       |         | OEKO-<br>TEX®<br>STANDARD<br>100 Product<br>Class I<br>Annex 4 | #3<br>CO/PES<br>non-woven<br>embroidery<br>backing<br>white | #4<br>PES+PES/EL<br>interlining<br>heat treatment<br>process<br>white |
|-------------------------------------------------------|---------|----------------------------------------------------------------|-------------------------------------------------------------|-----------------------------------------------------------------------|
| <b>Heavy Metals</b><br>OEKO-TEX® Method 3.1 (Extract) |         |                                                                |                                                             |                                                                       |
| Number of Tests                                       |         |                                                                | 1                                                           | 1                                                                     |
| • Antimony                                            | [mg/kg] | <30                                                            | <0.1                                                        | 1.4                                                                   |
| • Arsenic                                             | [mg/kg] | <0.20                                                          | <0.02                                                       | <0.02                                                                 |
| • Lead                                                | [mg/kg] | <0.20                                                          | <0.02                                                       | <0.02                                                                 |
| • Cadmium                                             | [mg/kg] | <0.10                                                          | <0.02                                                       | <0.02                                                                 |
| • Chromium total                                      | [mg/kg] | <1.0                                                           | 0.03                                                        | <0.02                                                                 |
| • Cobalt                                              | [mg/kg] | <1.0                                                           | <0.02                                                       | <0.02                                                                 |
| • Copper                                              | [mg/kg] | <25                                                            | <1.0                                                        | <1.0                                                                  |
| • Nickel                                              | [mg/kg] | <1.0                                                           | <0.10                                                       | <0.10                                                                 |
| • Mercury                                             | [mg/kg] | <0.02                                                          | <0.006                                                      | <0.006                                                                |
| • Selenium                                            | [mg/kg] | <100                                                           | <0.40                                                       | <0.40                                                                 |
| • Zinc                                                | [mg/kg] |                                                                | 3.1                                                         | 21                                                                    |
| • Manganese                                           | [mg/kg] |                                                                | 0.43                                                        | <0.40                                                                 |
| • Barium                                              | [mg/kg] | <1000                                                          | <2.00                                                       | <2.00                                                                 |

|                                                         |         | OEKO-<br>TEX®<br>STANDARD<br>100 Product<br>Class I<br>Annex 4 | #1<br>PES/EL<br>knitted<br>interlining<br>hot-melt<br>adhesive<br>white | #2<br>100% PES<br>non-woven<br>interlining<br>hot-melt<br>adhesive<br>white |
|---------------------------------------------------------|---------|----------------------------------------------------------------|-------------------------------------------------------------------------|-----------------------------------------------------------------------------|
| <b>Heavy Metals</b><br>OEKO-TEX® Method 3.2 (Digestion) |         |                                                                |                                                                         |                                                                             |
| Number of Tests                                         |         |                                                                | 1                                                                       | 1                                                                           |
| • Lead                                                  | [mg/kg] | <90                                                            | <4.0                                                                    | <4.0                                                                        |
| • Cadmium                                               | [mg/kg] | <40                                                            | <0.20                                                                   | <0.20                                                                       |
| • Antimony                                              | [mg/kg] |                                                                | 18                                                                      | 13                                                                          |
| • Mercury                                               | [mg/kg] | <0.5                                                           | <0.006                                                                  | <0.006                                                                      |
| • Arsenic                                               | [mg/kg] | <100                                                           | <0.20                                                                   | <0.20                                                                       |

OEKO-  
TEX®  
STANDARD  
100 Product  
Class I  
Annex 4

#3  
CO/PES  
non-woven  
embroidery  
backing  
white

|                                         |         |       |       |
|-----------------------------------------|---------|-------|-------|
| <b>Pesticides</b><br>OEKO-TEX® Method 4 |         |       |       |
| Number of Tests                         |         |       | 1     |
| • Sum                                   | [mg/kg] | <0.50 | <0.01 |
| • Dichlorophene                         | [mg/kg] |       | <0.01 |
| • Dicofol                               | [mg/kg] |       | <0.01 |
| • Chlorothalonil                        | [mg/kg] |       | <0.01 |
| • Silafluofen                           | [mg/kg] |       | <0.01 |
| • Tolyfluanide                          | [mg/kg] |       | <0.01 |
| • Carbendazim                           | [mg/kg] |       | <0.01 |
| • Chloropyriphos-methyl                 | [mg/kg] |       | <0.01 |
| • Chloropyriphos                        | [mg/kg] |       | <0.01 |

|                                                          |         | OEKO-<br>TEX®<br>STANDARD<br>100 Product<br>Class I<br>Annex 4 | #2<br>100% PES<br>non-woven<br>interlining<br>hot-melt<br>adhesive<br>white | #3<br>CO/PES<br>non-woven<br>embroidery<br>backing<br>white |
|----------------------------------------------------------|---------|----------------------------------------------------------------|-----------------------------------------------------------------------------|-------------------------------------------------------------|
| <b>Chlorinated Phenols and OPP</b><br>OEKO-TEX® Method 5 |         |                                                                |                                                                             |                                                             |
| Number of Tests                                          |         |                                                                | 1                                                                           | 1                                                           |
| • OPP (Orthophenylphenol)                                | [mg/kg] | <10                                                            | <0.05                                                                       | <0.05                                                       |
| • Pentachlorophenol (PCP)                                | [mg/kg] | <0.05                                                          | <0.01                                                                       | <0.01                                                       |
| • 2,3,5,6-TeCP                                           | [mg/kg] |                                                                | <0.01                                                                       | <0.01                                                       |
| • 2,3,4,6-TeCP                                           | [mg/kg] |                                                                | <0.01                                                                       | <0.01                                                       |
| • 2,3,4,5-TeCP                                           | [mg/kg] |                                                                | <0.01                                                                       | <0.01                                                       |
| • Tetrachlorophenols (TeCP, Sum)                         | [mg/kg] | <0.05                                                          | <0.01                                                                       | <0.01                                                       |
| • 2,3,4-TrCP                                             | [mg/kg] |                                                                | <0.01                                                                       | <0.01                                                       |
| • 2,3,5-TrCP                                             | [mg/kg] |                                                                | <0.01                                                                       | <0.01                                                       |
| • 2,3,6-TrCP                                             | [mg/kg] |                                                                | <0.01                                                                       | <0.01                                                       |
| • 2,4,5-TrCP                                             | [mg/kg] |                                                                | <0.01                                                                       | <0.01                                                       |
| • 2,4,6-TrCP                                             | [mg/kg] |                                                                | <0.01                                                                       | <0.01                                                       |
| • 3,4,5-TrCP                                             | [mg/kg] |                                                                | <0.01                                                                       | <0.01                                                       |
| • Trichlorophenols (TrCP, Sum)                           | [mg/kg] | <0.20                                                          | <0.01                                                                       | <0.01                                                       |
| • 2,4/2,5-DCP                                            | [mg/kg] |                                                                | <0.01                                                                       | <0.01                                                       |
| • 2,6-DCP                                                | [mg/kg] |                                                                | <0.01                                                                       | <0.01                                                       |
| • 2,3-DCP                                                | [mg/kg] |                                                                | <0.01                                                                       | <0.01                                                       |
| • 3,4-DCP                                                | [mg/kg] |                                                                | <0.01                                                                       | <0.01                                                       |
| • 3,5-DCP                                                | [mg/kg] |                                                                | <0.01                                                                       | <0.01                                                       |
| • Dichlorophenols (DCP, Sum)                             | [mg/kg] | <0.50                                                          | <0.01                                                                       | <0.01                                                       |
| • 2-MCP                                                  | [mg/kg] |                                                                | <0.01                                                                       | <0.01                                                       |
| • 3-MCP                                                  | [mg/kg] |                                                                | <0.01                                                                       | <0.01                                                       |
| • 4-MCP                                                  | [mg/kg] |                                                                | <0.01                                                                       | <0.01                                                       |
| • Monochlorophenols (MCP, Sum)                           | [mg/kg] | <0.50                                                          | <0.01                                                                       | <0.01                                                       |

| OEKO-<br>TEX®<br>STANDARD<br>100 Product<br>Class I<br>Annex 4 |       | #1<br>PES/EL<br>knitted<br>interlining<br>hot-melt<br>adhesive<br>white | #2<br>100% PES<br>non-woven<br>interlining<br>hot-melt<br>adhesive<br>white |
|----------------------------------------------------------------|-------|-------------------------------------------------------------------------|-----------------------------------------------------------------------------|
| <b>Plasticisers</b><br>OEKO-TEX® Method 6                      |       |                                                                         |                                                                             |
| Number of Tests                                                |       | 1                                                                       | 1                                                                           |
| • DMP [%]                                                      |       | <0.001                                                                  | <0.001                                                                      |
| • DEP [%]                                                      |       | <0.001                                                                  | <0.001                                                                      |
| • DPrP [%]                                                     |       | <0.001                                                                  | <0.001                                                                      |
| • DIBP [%]                                                     |       | <0.001                                                                  | <0.001                                                                      |
| • DBP [%]                                                      |       | <0.001                                                                  | <0.001                                                                      |
| • DMEP [%]                                                     |       | <0.001                                                                  | <0.001                                                                      |
| • DIPP [%]                                                     |       | <0.001                                                                  | <0.001                                                                      |
| • NPIPP [%]                                                    |       | <0.001                                                                  | <0.001                                                                      |
| • DPP [%]                                                      |       | <0.001                                                                  | <0.001                                                                      |
| • DIHxP [%]                                                    |       | <0.001                                                                  | <0.001                                                                      |
| • DHxP [%]                                                     |       | <0.001                                                                  | <0.001                                                                      |
| • BBP [%]                                                      |       | <0.001                                                                  | <0.001                                                                      |
| • DIHP* [%]                                                    |       | <0.001                                                                  | <0.001                                                                      |
| • DIOP [%]                                                     |       | <0.001                                                                  | <0.001                                                                      |
| • DCHP [%]                                                     |       | <0.001                                                                  | <0.001                                                                      |
| • DEHP [%]                                                     |       | <0.001                                                                  | <0.001                                                                      |
| • DNOP [%]                                                     |       | <0.001                                                                  | <0.001                                                                      |
| • DINP* [%]                                                    |       | <0.001                                                                  | <0.001                                                                      |
| • DNP* [%]                                                     |       | <0.001                                                                  | <0.001                                                                      |
| • DIDP [%]                                                     |       | <0.001                                                                  | <0.001                                                                      |
| • DUP* [%]                                                     |       | <0.001                                                                  | <0.001                                                                      |
| • Sum w/ DINP [%]                                              | <0.05 | <0.001                                                                  | <0.001                                                                      |
| • Sum w/o DINP [%]                                             |       | <0.001                                                                  | <0.001                                                                      |
| • * Components of DHNUP                                        |       |                                                                         |                                                                             |
| • DDDP [%]                                                     |       | <0.001                                                                  | <0.001                                                                      |
| • D4 (Octamethylcyclotetrasiloxane) [%]                        | <0.10 | <0.01                                                                   | <0.01                                                                       |
| • D5 (Decamethylcyclopentasiloxane) [%]                        | <0.10 | <0.01                                                                   | <0.01                                                                       |
| • D6 (Dodecamethylcyclohexasiloxane) [%]                       | <0.10 | <0.01                                                                   | <0.01                                                                       |

|                                                    |         | OEKO-<br>TEX®<br>STANDARD<br>100 Product<br>Class I<br>Annex 4 | #1<br>PES/EL<br>knitted<br>interlining<br>hot-melt<br>adhesive<br>white | #2<br>100% PES<br>non-woven<br>interlining<br>hot-melt<br>adhesive<br>white | #3<br>CO/PES<br>non-woven<br>embroidery<br>backing<br>white |
|----------------------------------------------------|---------|----------------------------------------------------------------|-------------------------------------------------------------------------|-----------------------------------------------------------------------------|-------------------------------------------------------------|
| <b>Organic Tin Compounds</b><br>OEKO-TEX® Method 7 |         |                                                                |                                                                         |                                                                             |                                                             |
| Number of Tests                                    |         |                                                                | 1                                                                       | 1                                                                           | 1                                                           |
| • Trimethyltin (TMT)                               | [mg/kg] | <1.0                                                           | <0.05                                                                   | <0.05                                                                       | <0.05                                                       |
| • Dimethyltin (DMT)                                | [mg/kg] | <1.0                                                           | <0.05                                                                   | <0.05                                                                       | <0.05                                                       |
| • Monomethyltin (MMT)                              | [mg/kg] | <1.0                                                           | <0.05                                                                   | <0.05                                                                       | <0.05                                                       |
| • Tetraethyltin (TeET)                             | [mg/kg] | <1.0                                                           | <0.05                                                                   | <0.05                                                                       | <0.05                                                       |
| • Dipropyltin (DPT)                                | [mg/kg] | <1.0                                                           | <0.05                                                                   | <0.05                                                                       | <0.05                                                       |
| • Monobutyltin (MBT)                               | [mg/kg] | <1.0                                                           | <0.05                                                                   | <0.05                                                                       | <0.05                                                       |
| • Tripropyltin (TPT)                               | [mg/kg] | <1.0                                                           | <0.05                                                                   | <0.05                                                                       | <0.05                                                       |
| • Dibutyltin (DBT)                                 | [mg/kg] | <1.0                                                           | <0.05                                                                   | <0.05                                                                       | <0.05                                                       |
| • Monophenyltin (MPhT)                             | [mg/kg] | <1.0                                                           | <0.05                                                                   | <0.05                                                                       | <0.05                                                       |
| • Tributyltin (TBT)                                | [mg/kg] | <0.50                                                          | <0.05                                                                   | <0.05                                                                       | <0.05                                                       |
| • Monooctyltin (MOT)                               | [mg/kg] | <1.0                                                           | <0.05                                                                   | <0.05                                                                       | <0.05                                                       |
| • Tetraoctyltin (TeBT)                             | [mg/kg] | <1.0                                                           | <0.05                                                                   | <0.05                                                                       | <0.05                                                       |
| • Diphenyltin (DPhT)                               | [mg/kg] | <1.0                                                           | <0.05                                                                   | <0.05                                                                       | <0.05                                                       |
| • Dioctyltin (DOT)                                 | [mg/kg] | <1.0                                                           | <0.05                                                                   | <0.05                                                                       | <0.05                                                       |
| • Tricyclohexyltin (TCT)                           | [mg/kg] | <1.0                                                           | <0.05                                                                   | <0.05                                                                       | <0.05                                                       |
| • Triphenyltin (TPhT)                              | [mg/kg] | <0.50                                                          | <0.05                                                                   | <0.05                                                                       | <0.05                                                       |
| • Tetraoctyltin (TeOT)                             | [mg/kg] | <1.0                                                           | <0.05                                                                   | <0.05                                                                       | <0.05                                                       |
| • Trioctyltin (TOT)                                | [mg/kg] | <1.0                                                           | <0.05                                                                   | <0.05                                                                       | <0.05                                                       |

OEKO-  
TEX®  
STANDARD  
100 Product  
Class I  
Annex 4

#1  
PES/EL  
knitted  
interlining  
hot-melt  
adhesive  
white

| <b>Azo Dyes</b><br>OEKO-TEX® Method 11.1 (direct) |         |     |      |
|---------------------------------------------------|---------|-----|------|
| Number of Tests                                   |         |     | 1    |
| • Aniline                                         | [mg/kg] | <20 | <5.0 |
| • o-Toluidine                                     | [mg/kg] | <20 | <10  |
| • 2,4-Xylidine                                    | [mg/kg] | <20 | <10  |
| • 2,6-Xylidine                                    | [mg/kg] | <20 | <10  |
| • o-Anisidine                                     | [mg/kg] | <20 | <10  |
| • p-Chloraniline                                  | [mg/kg] | <20 | <10  |
| • p-Cresidine                                     | [mg/kg] | <20 | <10  |
| • 2,4,5-Trimethylaniline                          | [mg/kg] | <20 | <10  |
| • 4-Chloro-o-toluidine                            | [mg/kg] | <20 | <10  |
| • 2,4-Toluylenediamine                            | [mg/kg] | <20 | <10  |
| • 2,4-Diaminoanisole                              | [mg/kg] | <20 | <10  |
| • 2-Naphthylamine                                 | [mg/kg] | <20 | <10  |
| • 2-Amino-4-nitrotoluene                          | [mg/kg] | <20 | <10  |
| • 4-Aminodiphenyl                                 | [mg/kg] | <20 | <10  |
| • 4,4'-Oxydianiline                               | [mg/kg] | <20 | <10  |
| • Benzidine                                       | [mg/kg] | <20 | <10  |
| • 4,4'-Diaminodiphenylmethane                     | [mg/kg] | <20 | <10  |
| • o-Aminoazotoluene                               | [mg/kg] | <20 | <10  |
| • 3,3'-Dimethyl-4,4'-diaminodiphenylmethane       | [mg/kg] | <20 | <10  |
| • 3,3'-Dimethylbenzidine                          | [mg/kg] | <20 | <10  |
| • 4,4'-Thiodianiline                              | [mg/kg] | <20 | <10  |
| • 3,3'-Dichlorobenzidine                          | [mg/kg] | <20 | <10  |
| • 4,4'-Methylene-bis-(2-chloraniline)             | [mg/kg] | <20 | <10  |
| • 3,3'-Dimethoxybenzidine                         | [mg/kg] | <20 | <10  |
| • 1,4-Phenylenediamine                            | [mg/kg] |     | <10  |
| • N-Methylaniline                                 | [mg/kg] |     | <10  |
| • 3,3-Diaminobenzidin                             | [mg/kg] | <20 | <10  |
| • 2-Amino-5-nitrothiazole                         | [mg/kg] |     | <10  |
| • 4-Ethoxyaniline                                 | [mg/kg] | <20 | <10  |
| • 2,5-Diaminotoluene                              | [mg/kg] | <20 | <10  |

| OEKO-<br>TEX®<br>STANDARD<br>100 Product<br>Class I<br>Annex 4    |         | #1<br>PES/EL<br>knitted<br>interlining<br>hot-melt<br>adhesive<br>white | #2<br>100% PES<br>non-woven<br>interlining<br>hot-melt<br>adhesive<br>white | #3<br>CO/PES<br>non-woven<br>embroidery<br>backing<br>white |
|-------------------------------------------------------------------|---------|-------------------------------------------------------------------------|-----------------------------------------------------------------------------|-------------------------------------------------------------|
| <b>Chlorinated Benzenes &amp; Toluenes</b><br>OEKO-TEX® Method 12 |         |                                                                         |                                                                             |                                                             |
| Number of Tests                                                   |         | 1                                                                       | 1                                                                           | 1                                                           |
| • Chlorobenzene                                                   | [mg/kg] | <0.05                                                                   | <0.05                                                                       | <0.05                                                       |
| • 2-Chlorotoluene                                                 | [mg/kg] | <0.02                                                                   | <0.02                                                                       | <0.02                                                       |
| • 3-Chlorotoluene                                                 | [mg/kg] | <0.01                                                                   | <0.01                                                                       | <0.01                                                       |
| • 4-Chlorotoluene                                                 | [mg/kg] | <0.01                                                                   | <0.01                                                                       | <0.01                                                       |
| • 1,3-Dichlorobenzene                                             | [mg/kg] | <0.01                                                                   | <0.01                                                                       | <0.01                                                       |
| • Benzylchloride                                                  | [mg/kg] | <0.01                                                                   | <0.01                                                                       | <0.01                                                       |
| • 1,4-Dichlorobenzene                                             | [mg/kg] | <0.01                                                                   | <0.01                                                                       | <0.01                                                       |
| • 1,2-Dichlorobenzene                                             | [mg/kg] | <0.01                                                                   | <0.01                                                                       | <0.01                                                       |
| • 2,4-Dichlorotoluene                                             | [mg/kg] | <0.01                                                                   | <0.01                                                                       | <0.01                                                       |
| • 2,5-/ 2,6-Dichlorotoluene                                       | [mg/kg] | <0.01                                                                   | <0.01                                                                       | <0.01                                                       |
| • 1,3,5-Trichlorobenzene                                          | [mg/kg] | <0.01                                                                   | <0.01                                                                       | <0.01                                                       |
| • α,α-Dichlorotoluene                                             | [mg/kg] | <0.01                                                                   | <0.01                                                                       | <0.01                                                       |
| • 2,3-/ 3,4-Dichlorotoluene                                       | [mg/kg] | <0.01                                                                   | <0.01                                                                       | <0.01                                                       |
| • 1,2,4-Trichlorobenzene                                          | [mg/kg] | <0.01                                                                   | <0.01                                                                       | <0.01                                                       |
| • 1,2,3-Trichlorobenzene                                          | [mg/kg] | <0.01                                                                   | <0.01                                                                       | <0.01                                                       |
| • α,α,α-Trichlorotoluene                                          | [mg/kg] | <0.01                                                                   | <0.01                                                                       | <0.01                                                       |
| • 2,4,5-Trichlorotoluene                                          | [mg/kg] | <0.01                                                                   | <0.01                                                                       | <0.01                                                       |
| • 2,3,6-Trichlorotoluene                                          | [mg/kg] | <0.01                                                                   | <0.01                                                                       | <0.01                                                       |
| • 3,4,5-Trichlorotoluene                                          | [mg/kg] | <0.01                                                                   | <0.01                                                                       | <0.01                                                       |
| • 2,3,4-Trichlorotoluene                                          | [mg/kg] | <0.01                                                                   | <0.01                                                                       | <0.01                                                       |
| • 2,4,6-Trichlorotoluene                                          | [mg/kg] | <0.01                                                                   | <0.01                                                                       | <0.01                                                       |
| • 1,2,3,5-Tetrachlorobenzene                                      | [mg/kg] | <0.01                                                                   | <0.01                                                                       | <0.01                                                       |
| • 1,2,4,5-Tetrachlorobenzene                                      | [mg/kg] | <0.01                                                                   | <0.01                                                                       | <0.01                                                       |
| • α,2,6-Trichlorotoluene                                          | [mg/kg] | <0.01                                                                   | <0.01                                                                       | <0.01                                                       |
| • α,2,4-Trichlorotoluene                                          | [mg/kg] | <0.01                                                                   | <0.01                                                                       | <0.01                                                       |
| • 1,2,3,4-Tetrachlorobenzene                                      | [mg/kg] | <0.01                                                                   | <0.01                                                                       | <0.01                                                       |
| • 2,3,4,5-Tetrachlorotoluene                                      | [mg/kg] | <0.01                                                                   | <0.01                                                                       | <0.01                                                       |
| • 2,3,4,6-TeCT / 2,3,5,6-TeCT                                     | [mg/kg] | <0.02                                                                   | <0.02                                                                       | <0.02                                                       |
| • α,3,4-Trichlorotoluene                                          | [mg/kg] | <0.01                                                                   | <0.01                                                                       | <0.01                                                       |
| • α,α,α,2-Tetrachlorotoluene                                      | [mg/kg] | <0.01                                                                   | <0.01                                                                       | <0.01                                                       |
| • Pentachlorobenzene                                              | [mg/kg] | <0.01                                                                   | <0.01                                                                       | <0.01                                                       |
| • 2,3,4,5,6-Pentachlorotoluene                                    | [mg/kg] | <0.01                                                                   | <0.01                                                                       | <0.01                                                       |
| • Hexachlorobenzene                                               | [mg/kg] | <0.01                                                                   | <0.01                                                                       | <0.01                                                       |
| • Sum                                                             | [mg/kg] | <1.0                                                                    | <0.01                                                                       | <0.01                                                       |

| OEKO-<br>TEX®<br>STANDARD<br>100 Product<br>Class I<br>Annex 4       |         | #1<br>PES/EL<br>knitted<br>interlining<br>hot-melt<br>adhesive<br>white | #2<br>100% PES<br>non-woven<br>interlining<br>hot-melt<br>adhesive<br>white | #3<br>CO/PES<br>non-woven<br>embroidery<br>backing<br>white |
|----------------------------------------------------------------------|---------|-------------------------------------------------------------------------|-----------------------------------------------------------------------------|-------------------------------------------------------------|
| <b>Polycyclic Aromatic Hydrocarbons (PAH)</b><br>OEKO-TEX® Method 13 |         |                                                                         |                                                                             |                                                             |
| Number of Tests                                                      |         | 1                                                                       | 1                                                                           | 1                                                           |
| • Naphthalene                                                        | [mg/kg] | 0.11                                                                    | 0.11                                                                        | 0.05                                                        |
| • Acenaphthylene                                                     | [mg/kg] | <0.01                                                                   | <0.01                                                                       | <0.01                                                       |
| • Acenaphthene                                                       | [mg/kg] | <0.01                                                                   | <0.01                                                                       | <0.01                                                       |
| • Fluorene                                                           | [mg/kg] | 0.06                                                                    | 0.06                                                                        | 0.03                                                        |
| • Phenanthrene                                                       | [mg/kg] | 0.13                                                                    | 0.13                                                                        | 0.05                                                        |
| • Anthracene                                                         | [mg/kg] | <0.01                                                                   | <0.01                                                                       | <0.01                                                       |
| • Fluoranthene                                                       | [mg/kg] | 0.06                                                                    | 0.06                                                                        | <0.01                                                       |
| • Pyrene                                                             | [mg/kg] | 0.06                                                                    | 0.06                                                                        | <0.01                                                       |
| • 1-Methylpyrene                                                     | [mg/kg] | <0.01                                                                   | <0.01                                                                       | <0.01                                                       |
| • Cyclopenta[cd]pyrene                                               | [mg/kg] | <0.01                                                                   | <0.01                                                                       | <0.01                                                       |
| • Benzo[a]anthracene                                                 | [mg/kg] | <0.50                                                                   | <0.01                                                                       | <0.01                                                       |
| • Chrysene                                                           | [mg/kg] | <0.50                                                                   | <0.01                                                                       | <0.01                                                       |
| • Benzo[b]fluoranthene                                               | [mg/kg] | <0.50                                                                   | <0.01                                                                       | <0.01                                                       |
| • Benzo[k]fluoranthene                                               | [mg/kg] | <0.50                                                                   | <0.01                                                                       | <0.01                                                       |
| • Benzo[j]fluoranthene                                               | [mg/kg] | <0.50                                                                   | <0.01                                                                       | <0.01                                                       |
| • Benzo[e]pyrene                                                     | [mg/kg] | <0.50                                                                   | <0.01                                                                       | <0.01                                                       |
| • Benzo[a]pyrene                                                     | [mg/kg] | <0.50                                                                   | <0.01                                                                       | <0.01                                                       |
| • Dibenzo[ah]anthracene                                              | [mg/kg] | <0.50                                                                   | <0.01                                                                       | <0.01                                                       |
| • Indeno[1,2,3-cd]pyrene                                             | [mg/kg] | <0.01                                                                   | <0.01                                                                       | <0.01                                                       |
| • Benzo[ghi]perylene                                                 | [mg/kg] | <0.01                                                                   | <0.01                                                                       | <0.01                                                       |
| • Dibenzo[ae]pyrene                                                  | [mg/kg] | <0.01                                                                   | <0.01                                                                       | <0.01                                                       |
| • Dibenzo[al]pyrene                                                  | [mg/kg] | <0.01                                                                   | <0.01                                                                       | <0.01                                                       |
| • Dibenzo[ai]pyrene                                                  | [mg/kg] | <0.01                                                                   | <0.01                                                                       | <0.01                                                       |
| • Dibenzo[ah]pyrene                                                  | [mg/kg] | <0.01                                                                   | <0.01                                                                       | <0.01                                                       |
| • Sum                                                                | [mg/kg] | <5.0                                                                    | 0.42                                                                        | 0.13                                                        |

|                                                |         | OEKO-<br>TEX®<br>STANDARD<br>100 Product<br>Class I<br>Annex 4 | #1<br>PES/EL<br>knitted<br>interlining<br>hot-melt<br>adhesive<br>white | #2<br>100% PES<br>non-woven<br>interlining<br>hot-melt<br>adhesive<br>white |
|------------------------------------------------|---------|----------------------------------------------------------------|-------------------------------------------------------------------------|-----------------------------------------------------------------------------|
| <b>Solvent Residues</b><br>OEKO-TEX® Method 14 |         |                                                                |                                                                         |                                                                             |
| Number of Tests                                |         |                                                                | 1                                                                       | 1                                                                           |
| • Benzene                                      | [mg/kg] | <5.00                                                          | <0.10                                                                   | <0.10                                                                       |
| • Formamide                                    | [%]     | <0.020                                                         | <0.010                                                                  | <0.010                                                                      |
| • Dimethylformamide (DMF)                      | [%]     | <0.05                                                          | <0.01                                                                   | <0.01                                                                       |
| • N,N-dimethylacetamide (DMAc)                 | [%]     | <0.05                                                          | <0.01                                                                   | <0.01                                                                       |
| • N-Methylpyrrolidone (NMP)                    | [%]     | <0.05                                                          | <0.01                                                                   | <0.01                                                                       |
| • N-ethyl-2-pyrrolidone (NEP)                  | [%]     |                                                                | <0.01                                                                   | <0.01                                                                       |

|                                                                   |         | OEKO-<br>TEX®<br>STANDARD<br>100 Product<br>Class I<br>Annex 4 | #1<br>PES/EL<br>knitted<br>interlining<br>hot-melt<br>adhesive<br>white | #2<br>100% PES<br>non-woven<br>interlining<br>hot-melt<br>adhesive<br>white | #3<br>CO/PES<br>non-woven<br>embroidery<br>backing<br>white |
|-------------------------------------------------------------------|---------|----------------------------------------------------------------|-------------------------------------------------------------------------|-----------------------------------------------------------------------------|-------------------------------------------------------------|
| <b>Surfactants, Wetting Agent Residues</b><br>OEKO-TEX® Method 15 |         |                                                                |                                                                         |                                                                             |                                                             |
| Number of Tests                                                   |         |                                                                | 1                                                                       | 1                                                                           | 1                                                           |
| • 4-tert-butylphenol                                              | [mg/kg] |                                                                | <2.0                                                                    | <2.0                                                                        | <2.0                                                        |
| • Pentylphenol (PeP)                                              | [mg/kg] |                                                                | <2.0                                                                    | <2.0                                                                        | <2.0                                                        |
| • Hexylphenol (HxP)                                               | [mg/kg] |                                                                | <2.0                                                                    | <2.0                                                                        | <2.0                                                        |
| • Heptylphenol (HpP)                                              | [mg/kg] |                                                                | <2.0                                                                    | <2.0                                                                        | <2.0                                                        |
| • Octylphenol (OP)                                                | [mg/kg] |                                                                | <2.0                                                                    | <2.0                                                                        | <2.0                                                        |
| • Nonylphenol (NP)                                                | [mg/kg] |                                                                | <2.0                                                                    | <2.0                                                                        | <2.0                                                        |
| • Sum AP                                                          | [mg/kg] | <10                                                            | <2.0                                                                    | <2.0                                                                        | <2.0                                                        |
| • Octylphenoethoxylate (OPEO)                                     | [mg/kg] |                                                                | <2.0                                                                    | <2.0                                                                        | <2.0                                                        |
| • Nonylphenoethoxylate (NPEO)                                     | [mg/kg] |                                                                | 6.8                                                                     | 6.8                                                                         | <2.0                                                        |
| • Sum AP & APEO                                                   | [mg/kg] | <100                                                           | 6.76                                                                    | 6.76                                                                        | <2.0                                                        |

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#1  
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adhesive  
white

| <b>N-Nitrosamines &amp; N-Nitrosatable Substances</b><br>OEKO-TEX® Method Nitrosamine |         |       |       |
|---------------------------------------------------------------------------------------|---------|-------|-------|
| Number of Tests                                                                       |         |       | 1     |
| • N-Nitrosodibenzylamine NDBzA                                                        | [mg/kg] | <0.5  | <0.05 |
| • N-Nitrosodibutylamine NDBA                                                          | [mg/kg] | <0.5  | <0.05 |
| • N-Nitrosodiethanolamine NDELA                                                       | [mg/kg] | <0.5  | <0.05 |
| • N-Nitrosodiethylamine NDEA                                                          | [mg/kg] | <0.5  | <0.05 |
| • N-Nitrosodiisobutylamine NDIBA                                                      | [mg/kg] | <0.5  | <0.05 |
| • N-Nitrosodiisononylamine NDiNA                                                      | [mg/kg] | <0.5  | <0.05 |
| • N-Nitrosodiisopropylamine NDIPA                                                     | [mg/kg] | <0.5  | <0.05 |
| • N-Nitrosodimethylamine NDMA                                                         | [mg/kg] | <0.5  | <0.05 |
| • N-Nitrosodipropylamine NDPA                                                         | [mg/kg] | <0.5  | <0.05 |
| • N-Nitrosomorpholine NMOR                                                            | [mg/kg] | <0.5  | <0.05 |
| • N-Nitroso-N-ethyl-N-phenylamine NEPhA                                               | [mg/kg] | <0.5  | <0.05 |
| • N-Nitroso-N-methyl-N-phenylamine NMPHA                                              | [mg/kg] | <0.5  | <0.05 |
| • N-Nitroso-piperidine NPIP                                                           | [mg/kg] | <0.5  | <0.05 |
| • N-Nitroso-pyrrolidine NPYR                                                          | [mg/kg] | <0.5  | <0.05 |
| • N-Nitrosomethylethylamine NMEA                                                      | [mg/kg] | <0.5  | <0.05 |
| • Sum N-Nitrosamines                                                                  | [mg/kg] |       | <0.05 |
| • N-Nitrosodibenzylamine NDBzA*                                                       | [mg/kg] |       | <0.05 |
| • N-Nitrosodibutylamine NDBA*                                                         | [mg/kg] |       | <0.05 |
| • N-Nitrosodiethanolamine NDELA*                                                      | [mg/kg] |       | <0.05 |
| • N-Nitrosodiethylamine NDEA*                                                         | [mg/kg] |       | <0.05 |
| • N-Nitrosodiisobutylamine NDIBA*                                                     | [mg/kg] |       | <0.05 |
| • N-Nitrosodiisononylamine NDiNA*                                                     | [mg/kg] |       | <0.05 |
| • N-Nitrosodiisopropylamine NDIPA*                                                    | [mg/kg] |       | <0.05 |
| • N-Nitrosodimethylamine NDMA*                                                        | [mg/kg] |       | <0.05 |
| • N-Nitrosodipropylamine NDPA*                                                        | [mg/kg] |       | <0.05 |
| • N-Nitrosomorpholine NMOR*                                                           | [mg/kg] |       | <0.05 |
| • N-Nitroso-N-ethyl-N-phenylamine NEPhA*                                              | [mg/kg] |       | <0.05 |
| • N-Nitroso-N-methyl-N-phenylamine NMPHA*                                             | [mg/kg] |       | <0.05 |
| • N-Nitroso-piperidine NPIP*                                                          | [mg/kg] |       | <0.05 |
| • N-Nitroso-pyrrolidine NPYR*                                                         | [mg/kg] |       | <0.05 |
| • N-Nitrosomethylethylamine NMEA*                                                     | [mg/kg] |       | <0.05 |
| • Sum N-Nitrosatable Substances                                                       | [mg/kg] | <5.0  | <0.05 |
| • 2-Mercaptobenzothiazol                                                              | [mg/kg] | <1000 | <0.05 |
| • * N-Nitrosatable Substances                                                         |         |       |       |

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white

|                                                                            |         |     |            |
|----------------------------------------------------------------------------|---------|-----|------------|
| <b>Phenol</b><br>OEKO-TEX® Method 5.1 *<br><br>Number of Tests<br>• Phenol | [mg/kg] | <20 | 1<br><0.05 |
|----------------------------------------------------------------------------|---------|-----|------------|

A determination of general odour has been carried out on all submitted samples. No abnormal odour has been detected.

## 7 Remarks

### Period of Validity

There are no regulations concerning duration of validity in the individual test standards. As the results of the examinations refer only to the submitted and examined samples, the report is valid for these for an unlimited period. A period of validity specified as part of an expert evaluation is in the discretion of the consultant or TESTEX. The applicability of results and expert evaluations for materials not tested is in the responsibility of the applicant. Whereby an apportionment of results as well as any specified period of validity can only be done for identically constructed products and only as long as the product is produced unchanged. Possible national or international restrictions concerning the terms of usability of test and classification reports have to be considered; this is not the responsibility of the test laboratory.

### Sample Material

Results of performed tests only refer to the sample material provided. The testing period is defined as timeframe between receipt of samples and issue date of test report. Without explicit written other agreement testing is destructive and the sample material is transferred to the property of TESTEX, which is entitled to freely decide on storage and disposal.

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End of Report