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REPORT

OEKO-TEX®
CONFIDENCE IN TEXTILES
STANDARD 100

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Client	Client's ref. nr.	
Catell AB **Västberga Allé 26** **126 30 HÄGERSTEN**	Contact person **Joakim Theander**	Our ref. nr. **5190703**

Object

Compliance test of main material in glove of relevant parameters in order to check whether the material meets the requirements in STANDARD 100 by OEKO-TEX®, Appendix 4 Product Class II.

Summary

Tested parameters and results (pass or fail) are summarized in Table 1.

Test Material

1	Black glove Marked: EDEMA light/medium 85% nylon, 15% spandex

The test material was received 2018-10-03 and 2019-09-23

Table 1. Tested parameters, pass or fail.

Test Material	1
pH	pass
Formaldehyde	pass
Extractable heavy metals	pass
Extractable Ni after abrasion	
Chromium VI	
Total lead and cadmium	
Pesticides	
Glyphosate and salts[1]	
Chlorinated phenols, phenol and OPP	pass
Phthalates	
Bisphenol A	
TCEP	
Siloxanes	
Organic tin compounds	pass
Perfluorinated compounds	
Chained chlorinated paraffins (SCCP+MCCP)	
Dimethylfumarate	
ADCA	
Cleavable arylamines	pass
Aniline	pass
Allergenic/cancerogenic disperse dyes	pass
Quinoline	pass
Carcinogenic dyes and pigments	
Other banned dyes	
Chlorinated benzenes and toluenes	
Polycyclic aromatic hydrocarbons	pass
Solvent residues	pass
Benzene	
APEO/AP	pass
UV stabilizers	
Nitrosamines; N-nitrosatable substances[1]	
Colour fastness to water	pass
Colour fastness to perspiration	**fail**
Colour fastness to rubbing	pass
Colour fastness to saliva /perspiration	
VOC, climate chamber	
Odour (SNV 195 651)	
Odour	

[1]Under observation, presently not regulated

Procedure and result

The tests are performed according to relevant parts of STANDARD 100 by OEKO-TEX® as prescribed by the OEKO-TEX® Association.
For test results, see Appendix 1.

Material 1 does not fulfil the requirements in STANDARD 100 by OEKO-TEX® Product Class II concerning colour fastness to perspiration, but for the other tested parameters the requirements in STANDARD 100 by OEKO-TEX® Product Class II are fulfilled.

For material 1, Phenol and Naphtalene was detected, but below limit value.

Comment

This compliance tests shall only be considered as a check regarding if the tested material can reach the requirements in STANDARD 100 by OEKO-TEX®, Appendix 4 Product Class II.
The tests report is **not** valid as a certificate and the results do not represent an official STANDARD 100 by OEKO-TEX® compliance, they are only valid for selected parameters for specific lots.

Mölndal, 2019-09-26
RISE IVF

Helena Hjärtnäs
Technical Reviewer

Lisa Helgeson
Project Manager

Appendix 1

Table 1. pH

Test Material	pH value
1	6.1
Oeko-Tex® limit value Product Class I-II	4.0 – 7.5

Table 2. Formaldehyde [mg/kg]

Test Material	Formaldehyde
1	n d[1]
Oeko-Tex® limit value Product Class II	<75

[1] n d = not detected (corresponds to Japanese Law, abs. unit <0.5 respectively < 16 mg/kg)

Table 3. Extractable metals [mg/kg]

Test Material	Sb	As	Pb	Cd	Cr	Co	Cu	Ni[1]	Hg	Ba	Se
1	< 0.3	< 0.1	< 0.1	< 0.05	< 0.3	< 0.3	< 0.3	< 0.3	< 0.02	0.3	< 0.3
Oeko-Tex® limit value Product Class II-III	<30	<1.0	<1.0[4]	<0.1	<2.0	<4.0	<50[2]	<4.0[3]	<0.02	<1000	<100

Table 4. Chlorinated phenols, Other chemical residues (phenol and Orthophenylphenol (OPP)) [mg/kg] [1]

Test Material	Chlorinated phenols					Other chemical residues	
	PCP	TeCP, sum	TrCP, sum	DCP, sum	MCP, sum	Phenol	OPP
1	< 0.02	< 0.05	< 0.12	< 0.12	< 0.06	<4	< 2
Oeko-Tex® limit value Product Class II-IV	<0.5	<0.5	<2.0	<3.0	<3.0	<50	<25

[1] The individual substances are listed in Standard 100 by OEKO-TEX® Appendix 5

Table 5. Organic tin compounds [mg/kg]

Test Material	1	Oeko-Tex® limit value Product Class II-IV
TBT	< 0.1	1.0
TPhT	< 0.1	1.0
DBT	< 0.1	2.0
DMT	< 0.1	2.0
DOT	< 0.1	2.0
DPhT	< 0.1	2.0
MMT	< 0.1	2.0
MBT	< 0.1	2.0
MOT	< 0.1	2.0
TeBT	< 0.1	2.0
TCyHT	< 0.1	2.0
TMT	< 0.1	2.0
TOT	< 0.1	2.0
TPT	< 0.1	2.0
DPT	< 0.1	2.0
MPhT	< 0.1	2.0
TeET	< 0.1	2.0

Table 6. Colorants (Cleavable cancerogenic arylamines derived from azo colorants [mg/kg]

Test Material	Cleavable arylamines[1,2]	Anline[1,3]
1	< 20	<20
Oeko-Tex® limit value Product Class II-IV	< 20	<50

[1] The individual arylamines are listed in Standard 100 by OEKO-TEX® Appendix 5
[2]The sum of cancerogenic arylamine and of possible also as chemical residue present free cancerogenic (same) arylamine.
[3]The sum of cleavable aniline and of possibly also as chemical residue present free aniline

Table 7. Colorants, Allergenic, cancerogenic and other banned disperse dyes, cancerogenic dyes (Basic red 9, Basic violet 3) and Other chemical residues, Quinoline [mg/kg]

Test Material	Allergenic and cancerogenic, other banned disperse dyes[1,2]	Cancerogenic dyes (Basic red 9, Basic violet 3)[2]	Quinoline[2]
1	<10	<10	<10
Oeko-Tex® limit value Product Class I-IV	**<50**	**<50**	**<50**

[1] The individual allergenic and cancerogenic disperse dyes are listed in Standard 100 by OEKO-TEX®, Appendix 5

[2] Disperse Blue 1, Basic Red 9, Basic Violet 3 and Quinoline are established CMR substances and will be regulated for textiles in REACH, Annex XVII in November 1, 2020.

Table 8. Polycyclic aromatic hydrocarbons (PAH) and [mg/kg]

Test Material	1	Oeko-Tex® limit value Product Class II-IV
Benzo[a]pyrene [2]	< 0.2	<1.0
Benzo[e]pyrene [2]	< 0.2	<1.0
Benzo[a]anthracene [2]	< 0.2	<1.0
Chrysene [2]	< 0.2	<1.0
Benzo[b]fluoranthene [2]	< 0.2	<1.0
Benzo[j]fluoranthene [2]	< 0.2	<1.0
Benzo[k]fluoranthene [2]	< 0.2	<1.0
Dibenzo[a,h]anthracene [2]	< 0.2	<1.0
Sum 24 PAH[1,3,4,5]	**0.7**	<10.0

[1] The individual substances are listed in Standard 100 by OEKO-TEX® Appendix 5

[2] Regulated in REACH, Annex XVII.
Max 0.5 mg/kg for toys and childrens articles and max 1 mg/kg for other articles.

[3] Anthracene is identified as Substances of Very High Concern and is included in the Candidate List.
EU and EEA suppliers of articles which contain substances in the Candidate List in a concentration above 0.1% (w/w) (1000 mg/kg) have certain obligations according to the REACH regulation

[4] Benzo[ghi]perylene is identified as Substances of Very High Concern and is included in the Candidate List.
EU and EEA suppliers of articles which contain substances in the Candidate List in a concentration above 0.1% (w/w) (1000 mg/kg) have certain obligations according to the REACH regulation.

[5] Naphtalene was found in material 1 in the concentration of 0.7 mg/kg which is below limit value.

Table 9. Solvent residues[1] [%, w/w] and Other chemical residues, (mg/kg), (Benzene)

Test Material	NMP[2]	DMAc[2]	DMF[2]	Formamide	Benzene
1	< 0.01	< 0.01	< 0.01	< 0.01	<1
Oeko-Tex® limit value Product Class I-IV	**<0.05**	**<0.05**	**<0.05**	**<0.02**	**<5**

[1] The individual substances are listed in STANDARD 100 by OEKO-TEX® Appendix 5.
[2] Exception for products which must undergo further production stages: max 3.0%. (heat process (wet/dry stage) or other)

Table 10. Surfactant, wetting agent residues, [mg/kg] (APEO (Alkylphenols and Alkylphenol ethoxylates))

Test Material	NP[1]	OP	HpP,	PeP	NP(EO)[1,2]	OP(EO)
1	< 2.5	< 2.5	< 2.5	< 2.5	< 20	< 20
Oeko-Tex® limit value Product Class I-IV	**<10 (sum)**				**<100** (sum incl NP/OP, HpP, PeP)	

[1] Identified as Substances of Very High Concern and is included in the Candidate List. EU and EEA suppliers of articles which contain substances in the Candidate List in a concentration above 0.1% (w/w) (1000 mg/kg) have certain obligations according to the REACH regulation.
[2] Will be regulated in REACH, Annex XVII.: Max 0.01% (w/w) (100 mg/kg), in February 2021.

Table 11. Colour fastness to water (staining)

Test Material	Grey scale (Fibre content adjacent fabric)	Grey scale (Fibre content adjacent fabric)
1	3-4(PA)	4(CO)
Oeko-Tex® limit value Product Class II-IV	**3**	**3**

Table 12. Colour fastness to perspiration (staining)

Test Material	Grey scale (Fibre content adjacent fabric)		Grey scale (Fibre content adjacent fabric)	
	pH 5.5	pH 8.0	pH 5.5	pH 8.0
1	4-5(CO)	4(CO)	4(PA)	3(PA)
Oeko-Tex® limit value Product Class I-IV	**3-4**	**3-4**	**3-4**	**3-4**

Table 13. Colour fastness to rubbing dry (staining)

Test Material	Length	Width
1	4-5	4-5
Oeko-Tex® limit value Product Class I-IV	**4**	**4**