

6. June 2016

MC/krj/WeO/mrÜ

Test Report No. 16.0.79506

(=12.HTR.10685 ZV3)

Applicant : Empas Emprime Tekstil San. Ltd. Sti.
Baglar Mah. Atatürk Cad. Nergiz Sok. No. 11
34212 Günesli - Bagcilar / Istanbul
TURKEY

Date of order : 02/12/2016

Reference no. or contact person : Mr Müslüm Derman
Tel: +90 2124 89172 7
Email: muslum@empasnet.com

Receipt of order : 02/23/2016

Receipt of material : 02/23/2016
04/15/2016 Samples 8 NU1 & 11 NU1 for retesting
05/02/2016 Sample 8 E1 for retesting
05/18/2016 Sample 8 E2 for retesting
05/30/2016 Sample 8 E3 for retesting

Receipt of further information : 02/11/2016 Payment in advance
06/03/2016 Signed documents
06/03/2016 QMS document

Details of order : Renewal of the certificate for textile products with the label
"Confidence in textiles – Tested for harmful substances according
to Oeko-Tex® Standard 100"

Test no. of first certification (master no.) : 12.HTR.10685

Der Prüfbericht umfasst 16 Seiten. / The test report comprises 16 pages.

Die Akkreditierung gilt für die in der Urkunde aufgeführten Prüfverfahren - im Bericht mit * gekennzeichnet.
The accreditation applies for the test methods listed in the certificate - marked * in the report.



Gründungsmitglied der Internationalen Gemeinschaft für Forschung und Prüfung auf dem Gebiet Textilökologie (OEKO-TEX® Standard 100)

Our terms of business shall apply:
www.hohenstein.de/pdf/agb_e.pdf

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VAT REG No. DE262079343

Hohenstein Textile Testing Institute GmbH & Co. KG • Court of Registration County Stuttgart HRA 723464 • personally liable associate: Hohenstein Verwaltungs GmbH HRB 752904 • company headquarter is Boennigheim • Managing Director: Dr. Stefan Droste

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Note/s : The application for certification was made for the commission finishing processes described in the application forms.

This only includes the parameters of the finishing steps mentioned, and not those of the basic goods relating to the article groups and product categories indicated in the application prior to finishing.

For technical reasons, the Institute will allocate a new test number to each order for the renewal of a certificate.

The renewed certificate will always be issued under the master number indicated in the first certification. The master number in brackets will be suffixed to the current test number of this expertise and will serve to identify the relevant product. The additional designation "ZV" with a number indicates the number of times the certificate has been renewed.

The application for renewal of the certificate 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.

The applicant documents that there are no changes to the previous certified article group.

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:

Pigment, pigment discharge, pigment water based printed knitted fabric produced from cotton, viscose (commission printing and finishing).

The four product categories specified in Oeko-Tex® Standard 100 are described as follows:

Product-class	Definition
I	Products for babies 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 with the exception of leather clothing.
II	Products with direct contact to skin 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.).

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Product-class	Definition
III	<p>Products without direct contact to skin 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.).</p>
IV	<p>Decoration material 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.</p>

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	pigment print	on knitted fabric	lab. sample	Yellow M3G		yellow	on CO
2	pigment print	on knitted fabric	lab. sample	Orange C-1116		orange	on CO
3	pigment print	on knitted fabric	lab. sample	Red MFB		red	on CO
4	pigment print	on knitted fabric	lab. sample	Navy Blue MFR		navy	on CO
5	pigment print	on knitted fabric	lab. sample	Black IKP		black	on CO
6	pigment print	on knitted fabric				base: white print: yellow, green, blue, orange, red, navy, black	on CO
7	pigment water based print	on knitted fabric				base: white print: yellow, green, blue, orange, red, navy, black	on CO
7 a	pigment water based print	on knitted fabric				print: blue, orange, navy	on CO

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Serial No.	Description of article or material	Additional information					Material composition
		Quality	Article No.	Colour No.	Design	Colour	
8	pigment discharge print	on knitted fabric				base: black print: yellow, green, blue, orange, red, navy, dark grey (black)	on CO
8 a	pigment discharge print	on knitted fabric				print: blue, red, dark grey (black)	on CO
9	pigment print	on knitted fabric				base: white print: yellow, green, blue, orange, red, navy, black	on CV
9 a	pigment print	on knitted fabric				print: blue, black, navy, yellow	on CV
10	pigment water based print	on knitted fabric				base: white print: yellow, green, blue, orange, red, navy, black	on CV
11	pigment discharge print	on knitted fabric				base: black print: yellow, green, blue, orange, red, navy, dark grey (black)	on CV

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Serial No.	Description of article or material	Additional information					Material composition
		Quality	Article No.	Colour No.	Design	Colour	
8 NU1	pigment discharge print	on knitted fabric				base: black print: yellow, green, blue, orange, red, navy, dark grey (black)	on CO
11 NU1	pigment discharge print	on knitted fabric				base: black print: yellow, green, blue, orange, red, navy, dark grey (black)	on CV

Serial No.	Description of article or material	Additional information					Material composition
		Quality	Article No.	Colour No.	Design	Colour	
8 E1	pigment discharge print	on knitted fabric				base: black print: yellow, green, blue, orange, red, navy, dark grey (black)	on CO

Serial No.	Description of article or material	Additional information					Material composition
		Quality	Article No.	Colour No.	Design	Colour	
8 E2	pigment discharge print	on knitted fabric				base: black print: yellow, green, blue, orange, red, navy, dark grey (black)	on CO

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Serial No.	Description of article or material	Additional information					Material composition
		Quality	Article No.	Colour No.	Design	Colour	
8 E3	pigment discharge print	on knitted fabric				base: navy print: yellow, green, blue, orange, red, lilac, dark grey	on CO

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

After being informed about the results by advanced notice the orderer sent improved samples from the same finishing quality (NU) resp. improved samples from a comparable finishing quality (E).

Test Result/s

Tests were carried out in accordance with Oeko-Tex® Standard 100.

The test results are given in the charts below.

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

sample	pH
6 pigment print base: white print: yellow, green, blue, orange, red, navy, black	5,6
8 pigment discharge print base: black print: yellow, green, blue, orange, red, navy, dark grey (black)	7,3
10 pigment water based print base: white print: yellow, green, blue, orange, red, navy, black	5,0
limit values acc. to Oeko-Tex® Standard 100	product class I 4,0 – 7,5 product class II 4,0 – 7,5 product class III 4,0 – 9,0 product class IV 4,0 – 9,0

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sample		formaldehyde in mg/kg (ppm)			
		product class I	product class II	product class III	product class IV
7	pigment water based print base: white print: yellow, green, blue, orange, red, navy, black	n.d.			
9	pigment print base: white print: yellow, green, blue, orange, red, navy, black	n.d.			
11	pigment discharge print base: black print: yellow, green, blue, orange, red, navy, dark grey (black)	n.d.			
limit values acc. to Oeko-Tex® Standard 100		n.d.	75	300	300

Note:

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

sample		extractable heavy metals in mg/kg (ppm)								
		Sb antimony	As arsenic	Pb lead	Cd cadmium	Cr chromium	Co cobalt	Cu copper	Ni nickel	Hg mercury
6	pigment print base: white print: yellow, green, blue, orange, red, navy, black	< 4	< 0,1	< 0,1	< 0,05	< 0,1	< 0,1	< 4	< 0,1	< 0,01
10	pigment water based print base: white print: yellow, green, blue, orange, red, navy, black	< 4	< 0,1	< 0,1	< 0,05	< 0,1	< 0,1	< 4	< 0,1	< 0,01
limit values acc. to Oeko-Tex® Standard 100										
product class I		30	0,2	0,2	0,1	1,0	1,0	25,0 ³	1,0 ⁴	0,02
product class II		30	1,0	1,0 ¹	0,1	2,0	4,0	50,0 ³	4,0 ⁵	0,02
product class III		30	1,0	1,0 ¹	0,1	2,0	4,0	50,0 ³	4,0 ⁵	0,02
product class IV		--	1,0	1,0 ¹	0,1	2,0 ²	4,0	50,0 ³	4,0 ⁵	0,02

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Notes:

A Test after mechanical ageing (EN 12472)

¹ No requirement for accessories made from glass

² For leather articles 10 mg/kg

³ No requirement for accessories made from inorganic materials

⁴ **For metallic accessories and metallized surfaces: 0,5 mg/kg**

⁵ **For metallic accessories and metallized surfaces: 1,0 mg/kg**

sample	heavy metals in digested sample (total content) in mg/kg (ppm)	
	Cd cadmium	Pb lead
7 pigment water based print base: white print: yellow, green, blue, orange, red, navy, black	<5	<5
9 pigment print base: white print: yellow, green, blue, orange, red, navy, black	<5	<5
11 pigment discharge print base: black print: yellow, green, blue, orange, red, navy, dark grey (black)	<5	<5
limit values acc. to Oeko-Tex® Standard 100 product class I - IV	40	90

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sample	phenols in mg/kg (ppm)			
	pentachlorophenol (PCP)	tetrachlorophenols (TeCP)	trichlorophenols (TrCP)	o-phenylphenol (OPP)
8 pigment discharge print base: black print: yellow, green, blue, orange, red, navy, dark grey (black)	n.d.	n.d.	n.d.	n.d.
10 pigment water based print base: white print: yellow, green, blue, orange, red, navy, black	n.d.	n.d.	n.d.	n.d.
limit values acc. to Oeko-Tex® Standard 100 product class I product class II - IV	0,05 0,50	sum isomers 0,05 sum isomers 0,50	sum isomers 0,2 sum isomers 2,0	50 100

sample	forbidden AZO-colorants cleavable arylamines of MAK-list III (category 1 or 2) in mg/kg (ppm)
	composite sample 1 pigment print yellow 2 pigment print orange 3 pigment print red
composite sample 4 pigment print navy 5 pigment print black	n.d.
limit value acc. to Oeko-Tex® Standard 100	product class I – IV n.d.

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sample	colour fastness						
	to water		to perspiration				to dry rubbing ¹
			alkaline		acid		
6 pigment print base: white print: yellow, green, blue, orange, red, navy, black							4
7a pigment water based print print: blue, orange, navy	CO 4-5	WO 4-5					
8a pigment discharge print print: blue, red, dark grey (black)	CO 3	WO 3-4					
9a pigment print print: blue, black, navy, yellow	CV 4-5	WO 4-5					
10 pigment water based print base: white print: yellow, green, blue, orange, red, navy, black							4
11 pigment discharge print base: black print: yellow, green, blue, orange, red, navy, dark grey (black)							3 ²
limit values acc. to Oeko-Tex® Standard 100 product class I - IV	3		3-4		3-4		4 (3²)

Notes:

¹ No requirements for "wash-out" articles.

² 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

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sample		colour fastness to saliva and perspiration
6	pigment print base: white print: yellow, green, blue, orange, red, navy, black	fast
7	pigment water based print base: white print: yellow, green, blue, orange, red, navy, black	fast
8	pigment discharge print base: black print: yellow, green, blue, orange, red, navy, dark grey (black)	not fast
9	pigment print base: white print: yellow, green, blue, orange, red, navy, black	fast
10	pigment water based print base: white print: yellow, green, blue, orange, red, navy, black	fast
11	pigment discharge print base: black print: yellow, green, blue, orange, red, navy, dark grey (black)	not fast
limit value acc. to Oeko-Tex® Standard 100		product class I fast

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sample		colour fastness to saliva and perspiration
8NU1	pigment discharge print base: black print: yellow, green, blue, orange, red, navy, dark grey (black)	not fast
11NU1	pigment discharge print base: black print: yellow, green, blue, orange, red, navy, dark grey (black)	fast
limit value acc. to Oeko-Tex® Standard 100		product class I fast

sample		colour fastness to saliva and perspiration
8E1	pigment discharge print base: black print: yellow, green, blue, orange, red, navy, dark grey (black)	not fast
limit value acc. to Oeko-Tex® Standard 100		product class I fast

sample		colour fastness to saliva and perspiration
8E2	pigment discharge print base: black print: yellow, green, blue, orange, red, navy, dark grey (black)	not fast
limit value acc. to Oeko-Tex® Standard 100		product class I fast

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sample	colour fastness to saliva and perspiration
8E3 pigment discharge print base: navy print: yellow, green, blue, orange, red, lilac, dark grey	fast
limit value acc. to Oeko-Tex® Standard 100	product class I fast

sample	organo tin compounds in mg/kg (ppm)			
	TBT	TPhT	DBT	DOT
composite sample 8 pigment discharge print base: black print: yellow, green, blue, orange, red, navy, dark grey (black) 10 pigment water based print base: white print: yellow, green, blue, orange, red, navy, black	n.d.	n.d.	n.d.	n.d.
limit values acc. to Oeko-Tex® Standard 100				
product class I	0,5	0,5	1,0	1,0
product class II - IV	1,0	1,0	2,0	2,0

sample	plasticizers (phthalates) in %
6 pigment print base: white print: yellow, green, blue, orange, red, navy, black	n.d.
limit values acc. to Oeko-Tex® Standard 100	
product class I	sum (DINP, DNOP, DEHP, DHxP, DIDP, DIHxP, BBP, DBP, DIBP, DIHP, DHNUP, DHP, DMEP, DPP) 0,1
product class II - IV	sum (DEHP, BBP, DBP, DHxP, DIBP, DIHP, DIHxP, DHNUP, DHP, DMEP, DPP) 0,1

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sample		Tris(2-chloroethyl)phosphate (TCEP) in %
6	pigment print base: white print: yellow, green, blue, orange, red, navy, black	n.d.
limit values acc. to Oeko-Tex® Standard 100 product class I - IV		0,1

sample		polycyclic aromatic hydrocarbons (PAH) in mg/kg (ppm)	
composite sample 6	pigment print base: white print: yellow, green, blue, orange, red, navy, black	n.d.	
11	pigment discharge print base: black print: yellow, green, blue, orange, red, navy, dark grey (black)		
limit values acc. to Oeko-Tex® Standard 100		product class I	product class II-IV
		Benzo[a]pyrene	1,0
		Benzo[e]pyrene	1,0
		Benzo[a]anthracene	1,0
		Chrysene	1,0
		Benzo[b]fluoranthene	1,0
		Benzo[j]fluoranthene	1,0
		Benzo[k]fluoranthene	1,0
		Dibenzo[a,h]anthracene	1,0
		<u>and</u>	
		sum of all 24 PAH:	10,0

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sample	Nonylphenol, Octylphenol and specific Alkylphenoethoxylates in mg/kg (ppm)	
	NP / OP	NP / OP / NP (EO) / OP (EO)
6 pigment print base: white print: yellow, green, blue, orange, red, navy, black	n.d.	n.d.
11 pigment discharge print base: black print: yellow, green, blue, orange, red, navy, dark grey (black)	n.d.	n.d.
limit values acc. to Oeko-Tex® Standard 100 product class I - IV	sum <10,0	sum <100,0

sample	odour test
1 - 11	n.d.
limit value acc. to Oeko-Tex® Standard 100	product class I-IV no abnormal odour

Conclusion

The material for which the certification was applied fulfils the specific requirements for product class I of Oeko-Tex® Standard 100.

It is representative of the article group for which an application for certification was made.

The certification of the following article group is approved:

Pigment, pigment discharge, pigment water based printed knitted fabric produced from cotton, viscose (commission printing and finishing).

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").

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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 Oeko-Tex® Standard 100 is edition 01/2016. It can be downloaded directly from the Oeko-Tex® Homepage (<http://www.oeko-tex.com>).

Managing Director



Dr. Stefan Droste



Head of Department Oeko-Tex®



Dipl.-Ing. (FH) Elisabeth Weisheit

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