

25. July 2013  
CM/sm

## Test Report No. 13.0.26518

(=08.HBD.59321 ZV5)

**Applicant** : Keya Knit Composite Ltd.  
Jarun, Konabari  
Gazipur - 1346  
BANGLADESH

**Date of order** : 15/06/2013

**Reference no. or contact person** : Mr Masum Pathan  
Tel: +880 2929 779  
Email: masum@keya-bd.com

**Receipt of order** : 18/06/2013

**Receipt of material** : 18/06/2013

**Receipt of further information** : 01/07/2013 payment in advance

**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.)** : 08.HBD.59321

*This test report comprises 10 pages*

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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:

White, reactive and disperse dyed knitted fabrics made of 100 % cotton, cotton/elastane and cotton/polyester as well as knitted fabrics made of cotton/viscose in colour light grey melange and grey melange.

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

<b>Product-class</b>	<b>Definition</b>
I	<b>Products for babies</b> 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	<b>Products with direct contact to skin</b> Skin contact articles are those which are worn with a large part of their surface in direct contact with the skin (e.g. blouses, shirts, underwear etc.).
III	<b>Products without direct contact to skin</b> 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.).

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Product-class	Definition
IV	<p><b>Decoration material</b>                      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	knitted fabric	bleached				white	CO
2	knitted fabric	reactive dyed				orange	CO
3	knitted fabric	reactive dyed				red	CO
4	knitted fabric	reactive dyed				light pink	CO
5	knitted fabric	reactive dyed				green	CO
6	knitted fabric	reactive dyed				royal blue	CO
7	knitted fabric	reactive dyed				navy	CO
8	knitted fabric	reactive dyed				black	CO
9	knitted fabric	reactive dyed				red	CO/EL
10	knitted fabric	reactive dyed				green	CO/EL
11	knitted fabric	reactive dyed				navy	CO/EL
12	knitted fabric	reactive dyed				black	CO/EL
13	knitted fabric	bleached				white	CO/PES

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Serial No.	Description of article or material	Additional information					Material composition
		Quality	Article No.	Colour No.	Design	Colour	
14	knitted fabric	reactive and disperse dyed				orange	CO/PES
15	knitted fabric	reactive and disperse dyed				red	CO/PES
16	knitted fabric	reactive and disperse dyed				green	CO/PES
17	knitted fabric	reactive and disperse dyed				royal blue	CO/PES
18	knitted fabric	reactive and disperse dyed				navy	CO/PES
19	knitted fabric	reactive and disperse dyed				black	CO/PES
20	knitted fabric	melange				light grey melange	CO/CV
21	knitted fabric	melange				grey melange	CO/CV

Serial No.	Description of article or material	Additional information					Material composition
		Quality	Article No.	Colour No.	Design	Colour	
14 NU1	knitted fabric	reactive and disperse dyed				orange	CO/PES
19 NU1	knitted fabric	reactive and disperse dyed				black	CO/PES

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).

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## 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			
4 knitted fabric light pink	6,7			
10 knitted fabric green	6,5			
14 knitted fabric orange	6,5			
20 knitted fabric light grey melange	6,5			
<b>limit values acc. to Oeko-Tex® Standard 100</b>	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

sample	formaldehyde in mg/kg (ppm)			
1 knitted fabric white	n.d.			
12 knitted fabric black	n.d.			
13 knitted fabric white	n.d.			
21 knitted fabric grey melange	n.d.			
<b>limit values acc. to Oeko-Tex® Standard 100</b>	product class I n.d.	product class II 75	product class III 300	product class IV 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
10 knitted fabric green	< 4	< 0,05	< 0,05	< 0,05	< 0,1	< 0,1	< 4	< 0,1	< 0,01

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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
18 knitted fabric navy	< 4	< 0,05	< 0,05	< 0,05	< 0,1	< 0,1	< 4	0,10	< 0,01
<b>limit values acc. to Oeko-Tex® Standard 100</b>									
product class I	30	0,2	0,2	0,1	1,0	1,0	25,0 <sup>1</sup>	1,0 <sup>2</sup>	0,02
product class II	30	1,0	1,0 <sup>1</sup>	0,1	2,0	4,0	50,0 <sup>1</sup>	4,0 <sup>3</sup>	0,02
product class III	30	1,0	1,0 <sup>1</sup>	0,1	2,0	4,0	50,0 <sup>1</sup>	4,0 <sup>3</sup>	0,02
product class IV	--	1,0	1,0 <sup>1</sup>	0,1	2,0	4,0	50,0 <sup>1</sup>	4,0 <sup>3</sup>	0,02

Notes:

A Test after mechanical ageing (EN 12472)

<sup>1</sup> No requirement for accessories made from inorganic materials

<sup>2</sup> For metallic accessories and metallized surfaces: 0,5 mg/kg

<sup>3</sup> For metallic accessories and metallized surfaces: 1,0 mg/kg

sample	pesticides sum in mg/kg (ppm)			
	product class I sum 0,5	product class II sum 1,0	product class III sum 1,0	product class IV sum 1,0
2 knitted fabric orange	n.d.			
20 knitted fabric light grey melange	n.d.			
21 knitted fabric grey melange	n.d.			
<b>limit values acc. to Oeko-Tex® Standard 100</b>	product class I sum 0,5	product class II sum 1,0	product class III sum 1,0	product class IV sum 1,0

sample	phenols in mg/kg (ppm)		
	pentachlorophenol (PCP)	tetrachlorophenols (TeCP) 2,3,5,6- / 2,3,4,6- / 2,3,4,5-	o-phenylphenol (OPP)
17 knitted fabric royal blue	n.d.	n.d.	n.d.
20 knitted fabric light grey melange	n.d.	n.d.	n.d.
<b>limit values acc. to Oeko-Tex® Standard 100</b>			
product class I	0,05	sum 0,05	50
product class II - IV	0,50	sum 0,50	100

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sample	forbidden AZO-colorants cleavable arylamines of MAK-list III (category 1 or 2) in mg/kg (ppm)	
	composite sample 2 knitted fabric orange 4 knitted fabric light pink	n.d.
composite sample 14 knitted fabric orange 15 knitted fabric red 16 knitted fabric green	n.d.	
composite sample 17 knitted fabric royal blue 18 knitted fabric navy 19 knitted fabric black	n.d.	
<b>limit value acc. to Oeko-Tex® Standard 100</b>	<b>product class I – IV</b> n.d.	

sample	allergenic colorants in mg/kg (ppm)	
	composite sample 14 knitted fabric orange 15 knitted fabric red 16 knitted fabric green	n.d.
composite sample 17 knitted fabric royal blue 18 knitted fabric navy 19 knitted fabric black	n.d.	
<b>limit value acc. to Oeko-Tex® Standard 100</b>	<b>product class I - IV</b> n.d.	

sample	colour fastness						
	to water		to perspiration				to dry rubbing <sup>1</sup>
	CO	WO	alkaline		acid		
3 knitted fabric red	CO 4	WO 4-5					
5 knitted fabric green	CO 4-5	WO 4-5					
7 knitted fabric navy							5

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sample	colour fastness							
	to water		to perspiration				to dry rubbing <sup>1</sup>	
			alkaline		acid			
9	knitted fabric red	CO 4-5	WO 4-5					
11	knitted fabric navy						5	
15	knitted fabric red	CO 4	PES 4				5	
16	knitted fabric green	CO 4-5	PES 4-5				5	
17	knitted fabric royal blue						5	
18	knitted fabric navy	CO 4-5	PES 4-5				4-5	
<b>limit values acc. to Oeko-Tex® Standard 100 product class I - IV</b>		<b>3</b>		<b>3-4</b>		<b>3-4</b>		<b>4 (3<sup>2</sup>)</b>

Notes:

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

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

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

5 = best result, 1 = worst result

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

sample	colour fastness to saliva and perspiration
2	knitted fabric orange fast
3	knitted fabric red fast
5	knitted fabric green fast
6	knitted fabric royal blue fast
7	knitted fabric navy fast
8	knitted fabric black fast
9	knitted fabric red fast
10	knitted fabric green fast



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sample	colour fastness to saliva and perspiration
11 knitted fabric navy	fast
12 knitted fabric black	fast
14 knitted fabric orange	not fast
15 knitted fabric red	fast
16 knitted fabric green	fast
17 knitted fabric royal blue	fast
18 knitted fabric navy	fast
19 knitted fabric black	not fast
21 knitted fabric grey melange	fast
<b>limit value acc. to Oeko-Tex® Standard 100</b>	<b>product class I fast</b>

sample	colour fastness to saliva and perspiration
14NU1 knitted fabric orange	fast
19NU1 knitted fabric black	fast
<b>limit value acc. to Oeko-Tex® Standard 100</b>	<b>product class I fast</b>

sample	Nonylphenol, Octylphenol and specific Alkylphenoethoxylates in mg/kg (ppm)	
	NP / OP	NP / OP / NP (EO) <sub>1-9</sub> / OP (EO) <sub>1-2</sub>
composite sample 11 knitted fabric navy 14 knitted fabric orange	n.d.	n.d.
<b>limit values acc. to Oeko-Tex® Standard 100 product class I - IV</b>	<b>sum 50,0</b>	<b>sum 500,0</b>

sample	odour test
1 - 21	n.d.
<b>limit value acc. to Oeko-Tex® Standard 100</b>	<b>product class I – IV no abnormal odour</b>

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## 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:

White, reactive and disperse dyed knitted fabrics made of 100 % cotton, cotton/elastane and cotton/polyester as well as knitted fabrics made of cotton/viscose in colour light grey melange and grey melange.

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

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

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

The actual version of Oeko-Tex® Standard 100 is edition 04/2013. It can be downloaded directly from the Oeko-Tex® Homepage (<http://www.oeko-tex.com>).

Managing Director



Prof. Dr. Stefan Mecheels



Head of Test Centre  
Oeko-Tex® Standard 100



Dipl.-Ing. (FH) Elisabeth Weisheit

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