

6. May 2016  
IX/vca/kik/mrü

## Test Report No. 16.0.81891

(=13.HCN.19746 ZV3)

**Applicant** : Zhejiang Anshun Pettechs Fiber Co., Ltd.  
No. 12 Road, Dongzhou Industrial Zone  
Fuyang City, Zhejiang Province  
CHINA, P.R.

**Date of order** : 3/10/2016

**Reference no. or contact person** : Ms Xiaojuan Sun  
Tel: +86 571 63121062  
Email: sxj@anshunfiber.com

**Receipt of order** : 04/01/2016

**Receipt of material** : 04/01/2016

**Receipt of further information** : 03/28/2016 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.)** : 13.HCN.19746

Der Prüfbericht umfasst 7 Seiten. / The test report comprises 7 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 Textilekologie (OEKO-TEX®  
Standard 100)

Our terms of business shall apply:  
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personally liable associate: Hohenstein Verwaltungs GmbH HRB 752904 •  
company headquarter is Boennigheim • Managing Director: Dr. Stefan Droste

6. May 2016

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.

The application was made for the following article group:

Recycled polyester staple fibre in white and black made of PET bottles.

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

Product-class	Definition
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.).

6. May 2016

Product-class	Definition
IV	<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.

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	staple fibre					white	PES
2	staple fibre					black	PES

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

## 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			
1 staple fibre white	6,4			
<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)			
2 staple fibre black	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.

6. May 2016

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
2 staple fibre black	5	< 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 <sup>3</sup>	1,0 <sup>4</sup>	0,02
product class II	30	1,0	1,0 <sup>1</sup>	0,1	2,0	4,0	50,0 <sup>3</sup>	4,0 <sup>5</sup>	0,02
product class III	30	1,0	1,0 <sup>1</sup>	0,1	2,0	4,0	50,0 <sup>3</sup>	4,0 <sup>5</sup>	0,02
product class IV	--	1,0	1,0 <sup>1</sup>	0,1	2,0 <sup>2</sup>	4,0	50,0 <sup>3</sup>	4,0 <sup>5</sup>	0,02

Notes:

A Test after mechanical ageing (EN 12472)

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

<sup>2</sup> For leather articles 10 mg/kg

<sup>3</sup> No requirement for accessories made from inorganic materials

<sup>4</sup> For metallic accessories and metallized surfaces: 0,5 mg/kg

<sup>5</sup> For metallic accessories and metallized surfaces: 1,0 mg/kg

sample	phenols in mg/kg (ppm)					
	PCP Pentachloro- phenol	TeCP Tetrachloro- phenols	TrCP Trichloro- phenols	OPP o-Phenyl- phenol	DCP Dichloro- phenols	MCP Monochloro- phenols
1 staple fibre white	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.
limit values acc. to Oeko-Tex® Standard 100						
product class I	0,05	0,05 <sup>1</sup>	0,2 <sup>1</sup>	50	0,5 <sup>1</sup>	0,5 <sup>1</sup>
product class II - IV	0,50	0,50 <sup>1</sup>	2,0 <sup>1</sup>	100	3,0 <sup>1</sup>	3,0 <sup>1</sup>

Note: <sup>1</sup> sum of isomers

sample	forbidden AZO-colorants cleavable arylamines of MAK-list III (category 1 or 2) in mg/kg (ppm)
2 staple fibre black	n.d.
limit value acc. to Oeko-Tex® Standard 100	product class I – IV n.d.

sample	allergenic colorants in mg/kg (ppm)
2 staple fibre black	n.d.
limit value acc. to Oeko-Tex® Standard 100	product class I - IV n.d.

6. May 2016

sample	chlorinated benzenes and toluenes in mg/kg (ppm)
2 staple fibre black	n.d.
limit value acc. to Oeko-Tex® Standard 100	product class I – IV sum 1,0

sample	colour fastness					
	to water		to perspiration		to dry rubbing <sup>1</sup>	
			alkaline	acid		
2 staple fibre black	PES 4-5	CO 4-5				
limit values acc. to Oeko-Tex® Standard 100 product class I - IV	3		3-4		3-4	
					4 (3 <sup>2</sup> )	

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 staple fibre black	fast
limit value acc. to Oeko-Tex® Standard 100	product class I fast

sample	organo tin compounds in mg/kg (ppm)		
composite sample 2 staple fibre black	n.d.		
limit values acc. to Oeko-Tex® Standard 100		product class I	product class II - IV
	Tributyltin (TBT)	0,5	1,0
	Triphenyltin (TPHT)	0,5	1,0
	Dibutyltin (DBT)	1,0	2,0
	Dimethyltin (DMT)	1,0	2,0
	Diethyltin (DET)	1,0	2,0
	Diphenyltin (DPT)	1,0	2,0
	Monobutyltin (MBT)	1,0	2,0
	Monomethyltin (MT)	1,0	2,0
	Monooctyltin (MOT)	1,0	2,0
	Tetrabutyltin (TeBT)	1,0	2,0
	Tricyclohexyltin (TCyHT)	1,0	2,0
	Trimethyltin (TMT)	1,0	2,0
	Triethyltin (TOT)	1,0	2,0
	Tripropyltin (TPT)	1,0	2,0

6. May 2016

sample	polycyclic aromatic hydrocarbons (PAH) in mg/kg (ppm)		
composite sample 1 staple fibre white 2 staple fibre black	n.d.		
limit values acc. to Oeko-Tex® Standard 100		product class I	product class II-IV
	Benzo[a]pyrene	0,5	1,0
	Benzo[e]pyrene	0,5	1,0
	Benzo[a]anthracene	0,5	1,0
	Chrysene	0,5	1,0
	Benzo[b]fluoranthene	0,5	1,0
	Benzo[j]fluoranthene	0,5	1,0
	Benzo[k]fluoranthene	0,5	1,0
	Dibenzo[a,h]anthracene	0,5	1,0
	and sum of all 24 PAH:	5,0	10,0

sample	Nonylphenol, Octylphenol and specific Alkylphenolethoxylates in mg/kg (ppm)	
	NP / OP	NP / OP / NP (EO) / OP (EO)
1 staple fibre white	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 - 2	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:

Recycled polyester staple fibre in white and black made of PET bottles.

6. May 2016

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

Managing Director



Dr. Stefan Droste



Assistant Head of Department Oeko-Tex®



Dipl.-Ing. (FH) Ivonne Schramm

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