

## JAKO-O assignment on restricted substances in textile products

General requirement:

All basic-articles and as many as possible fashion articles shall be certified on Oeko-Tex Standard 100 class 1 and/or GOTS.

The information about the required certificate is provided to the supplier on the stylesheet.

The certificate must contain all relevant article and style numbers, it applies to. It must be dated and signed by the supplier.

In case no certificate for the ready-made article is released, OEKO-TEX certificates for all used materials and trims must be available and provided.

OR: - certificates related to restricted and harmful substances for all used materials and trims: All certificates from every test institute must contain the detailed test method and the final result (compliant/non compliant) on the first page.

The certificates related to restricted and harmful substances must show the analysis and compliance with the parameters of OEKO-TEX Standard 100 class 1 respectively 2. There must be certificates available for all colour ways of the relevant article or style.

All certificates respectively reports must be send to the quality assurance department latest 6 weeks before the catalogue release!

Test parameter	Test method	Product group						
	Norm / Standard	Garments (ladies' wear), day-/night wear, sports wear)	Swim wear	Jeans (Denim)	Garment- Prints: pigment dyes & washed out	Bedding	Hosiery, hats & bonets (head wear) and gloves	Functional wear
Colour fastness to rubbing *1	DIN EN ISO 105-X12	For velvet and cord reduced limits are acceptable. Dry: grade 3-4 & Wet: grade 2-3						
Dry		4	-	3	3-4	4	4	4
Wet		3	-	2	2-3	3	3	3
Colour fastness to water *1 (1)	DIN EN ISO 105-E01	4	4	3	3-4	4	4	4
Colour fastness to perspiration (acidic/alkaline) *1 (1)	DIN EN ISO 105-E04	3-4	3-4	3-4	3-4	4	3-4	4
Waschbarkeit / gemäß Pflegeanleitung *1 (1)	DIN EN ISO 105-C06	4	3-4	3	3-4	4	4	4
		For velvet, cord, brushed fabrics and silk: grade 3-4						
Colour fastness to dry cleaning *1 (1)	DIN EN ISO 105-D01	4	-	3	3-4	-	-	-
		For velvet, cord, brushed fabrics and silk: grade 3-4						
Colour fastness to light *2	DIN EN ISO 105-B02	5	5-6	5	4	5	5-6	5-6
			Neon colours 2-3				Neon colours 2-3	Neon colours 2-3
Colour fastness to chlorinated water *1 (concentration 100ppm)	DIN EN ISO 105-E03	-	3-4	-	-	-	-	-
Colour fastness to sea water *1	DIN EN ISO 105-E02	-	3-4	-	-	-	-	-
Sublimation to storage (only for contrast colours)	DIN 54056	4-5 (for Polyester and Polyamide fibers and fabrics)						
Seam slippage Seam opening at 4mm (only for woven fabrics)	DIN EN ISO 13936-2	Shell fabric: 120 N Lining: 80 N	-	Shell fabric: 120 N Lining: 80 N	Shell fabric: 120 N Lining: 80 N	-	-	Shell fabric: 120 N Lining: 80 N
Tear resistance (only for woven fabrics)	DIN EN ISO 13937-2	≥ 340g/m²: 30N ≥220g/m² to < 340g/m²: 30N < 200g/m² Lining: 8N						

Test parameter	Test method	Product group						
	Norm / Standard	Garments (ladies' wear), day-/night wear, sports wear)		Norm / Standard	Garments (ladies' wear), day-/night wear, sports wear)		Norm / Standard	Garments (ladies' wear), day-/night wear, sports wear)
Pilling woven *1 (after 2.000 rubs)	DIN EN ISO 12945-2	3-4	-	3-4	3-4	3-4	3-4	4
Pilling knitted *1 (after 2.000 rubs)		2-3	-	2-3	2-3	3-4	3-4	2-3
Dimensional stability and appearance after washing according Care Label (without ironing) (2) (household washing machine)	DIN EN ISO 6330 5077 3759	Woven: +/- 3% Warp and weft knitted: +/- 5%						
		The appearance shall not be affected (surface appearance, colour change, touch, print quality, lint, etc.). Colour change not less than grade 4						
Seam twist after 1 wash	DIN EN ISO 16322-3	Woven: +/- 1% Warp and weft knitted: +/- 2%	-	Woven: +/- 1% Warp and weft knitted: +/- 2%	Woven: +/- 1% Warp and weft knitted: +/- 2%	-	-	Woven: +/- 1% Warp and weft knitted: +/- 2%
Abrasion resistance		≥ 340g/m²: 35.000T < 340g/m²: 18.000T	18.000T	35.000T	≥ 340g/m²: 35.000T < 340g/m²: 18.000T	18.000T	18.000T	50.000T
Mass per unit area	DIN EN 12127	+/- 5%						
Odour	SNR 195651	Grade 3						
Corrosion of metall parts	DIN EN 12568 chapter 5.3.2	No corroded or rusty areas.						
Detachment of small parts Babies' and children's wear ≤ 36 months or ≤ size. 110	DIN EN 71-1 chapter. 8.4	≤ 6mm: 50N > 6mm: 90N						
Fastness to saliva and perspiration	DIN 53160-1 DIN 53160-2	Artificial sweat and saliva Grade: 5 (BVL B 82.92-3 / BVL B 82.02-13)						
Fiber composition	ISO/DIS 1833 VO 1007/2011	The fiber composition must match the information on the care label.						
Zipper test	DIN EN 16732	Must be compliant with the requirements in the standard						
UV-protection clothing	AS/NZS 4399 UV Standard 801	AS/NZS 4399: ≥ 40 UV Standard 801: ≥ 20						

## Functional tests

Parameter	Norm / Standard	Limit
Water penetration <sup>*3</sup>	DIN EN ISO 811	≥ 4.000 mm (shell fabric and all seam types)
Air permeability <sup>*3</sup>	DIN EN ISO 9237	≤ 5 l/m <sup>2</sup> x s (mm/s)
Water repellency <sup>*3</sup> ; Spraytest <sup>*3</sup>	DIN EN ISO 4920; (AATCC 22)	4; (90)
Water vapour transmission <sup>*3</sup> edition 2015	ASTM E96 Method BW edition 2015	≥ 2.000 g/m <sup>2</sup> x 24h

<sup>\*3</sup> all requirements must be met before and after 10 times washing (according care label)

Additional instructions:

- No fibre penetration of filling fibres in face and lining materials according to DIN EN 15586
- For pile and cord fabrics, sufficient pile strength must be ensured, e.g. with W pile knobs.
- Woven terry must reach a minimum value of 4N  
Test method: DIN 53843-1 Testing of textiles, loop tensile test, yarns
- Upper, lining and interlinings must be coordinated in their dimensional change behaviour.
- To ensure an appropriate care, all articles must be permanently and clearly marked with the appropriate care symbols.  
The labels must be resistant to washing and dry cleaning
- Clothing labelled as "easy-care" must be washable.  
Test method: ISO 7768 (for the evaluation of the smooth appearance of fabrics after household washing and drying)
- The fabrics and seams shall not crease or curl very much after the washing treatment.  
Test method AATCC 88B (for the evaluation of seams after household washing and drying)
- Microfibres are single filament yarns or staple fibres with a fineness of  $\leq 1.0$  dtex for all man-made fibres  
In general, articles are to be manufactured from microfibres in warp and/or weft direction.
- The processed cotton must have a minimum staple fibre length of  $\geq 28$ mm.  
Test method: DIN 53808-1 Testing of textiles - Determination of length of fibres by measuring of individual fibres
- All metal parts / accessories must be nickel-free and have no sharp points or sharp edges according to DIN EN 71-1 chapter 4.7.
- Only chemicals with C6 chains are tolerated for functional clothing or functional textiles.
- Bed linen must be washable at 60°C and suitable for tumble drying.
- Children's and nightwear must be washable at least at 60°C and suitable for tumble drying (tumble dryer).
- Cords and drawstrings on children's clothing must be compliant with the cords and drawstrings standard.  
Test method: DIN EN 14682 Safety of children's clothing – Cords and drawstrings on children's clothing
- The use of sandblasting techniques for denim articles is prohibited and must therefore not be used.

#### General requirements

##### Appearance after washing (textile care)

The appearance of the textile or the trims must not be negatively affected after textile care including drying (if necessary also in the dryer) with regard to e.g. print quality, handle, colour change (grades 3-4), lint and surface appearance. Heavy lint formation or smearing of prints is not accepted.

##### Articles in contrast colours

Contrast articles are defined as: black, red, blue, green and other dark colours in combination with light (white, yellow, pastel shades) base materials.

The following are not defined as contrasting articles: light and dark colours of one shade and flock prints.

The staining and the change in shade after textile care of the lighter colour shall not be lower than grade 4-5 for articles in contrasting colours.

##### Deviating standards

All deviating norms and standards must be approved by QA for the respective article.

#### Inspection for metal parts on finished parts of baby and children's clothing

Baby and children's clothing must be checked with a needle detector before delivery.



#### Colour distance for set and combination articles

Visual assessment: The colour assessment must be carried out according to DIN 6173 in sampling booths/light boxes. The article is checked under daylight D65, A and TL 84 according to DIN 5033.

Colour measurement: The colour measurement is to be carried out according to the testing standard DIN EN ISO 105-J01 (device setting: calculation factor CMC 2:1; gloss inclusion SCI/ 10° / light type: D65).

Permissible total colour difference  $dE \leq 0,8$

#### Foreign fibre content

The permissible proportion of extraneous fibres is defined in the provisions of Regulation 1007/2011. The tolerances regulated therein must be observed. The standard foreign fibre tolerance is max. 2% of the total weight of the textile product (Articles 20, 2a). Exceptions apply to woollen yarn with a maximum foreign fibre content of 5% of the total weight of the textile product (Articles 20, 2b) and to new wool (including woollen yarns) with a maximum foreign fibre content of 0.3% of the total weight of the textile product (Articles 8, 3).

#### Optical brighteners on children's clothing

The use of optical brighteners is not desired.

#### Trims

The product characteristics must be appropriate for the relevant product group.

The functionality of the trims, e.g. zippers, press studs, must be ensured after the textile care. It must be ensured that metal parts do not corrode after textile care (rust formation).

The opening force must be adapted to the product. The cross pull of hooks and eyelets must correspond to the product group used. The trims must not have any sharp, edges, points etc. after application.

The trims must be adapted to the product. The trims must be suitable for standard finishing processes on the ready made article (e.g. washing, bleaching, dyeing). Coloured buttons must not stain.

#### Labelling

Exact labelling can be found in our trim placement document.

#### Odour

Textiles that have an odour that is foreign to the product or that indicates improper production, storage etc. will not be accepted.

#### Declaration of conformity (DoC)

By means of a declaration of conformity in accordance with EN 17050-1, the supplier is obliged to deliver only goods that conform to the test sample.

#### Product labelling

Labelling according to product safety act (ProdSG) § 6

Specifications for the implementation of the labelling according to ProdSG § 6 must be followed.

Labelling according to textile labelling regulation EU 1007/2011

All products that fall within the scope of the Textile Labelling Regulation must always be provided with a textile label.

Marking of leather and imitation leather

Leather products which do not fall within the scope of the Textile Labelling Regulation must be labelled with the species of the animal from whose hide or skin the leather was obtained and the name of the type of leather used for clothing. To distinguish it from genuine leather, imitation leather must also be labelled as such.

#### Care labelling

All textiles as well as leather clothing must be provided with a care label, regardless of whether these products are washable or not. The care labelling is to be carried out using the symbols of DIN EN ISO 3758. The care label must be firmly and permanently attached to the textile and must be legible throughout the entire life cycle of the product.

#### Country of Origin (CoO)

Countries of origin must be indicated as „Made in .....“.