

**1<sup>st</sup> revision draft of the Global Organic Textile Standard, Version 3.0  
- Working Document -**

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International Working Group on Global Organic Textile Standard

**Global Organic Textile Standard  
(GOTS)**

***Version 3.0***



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Preliminary remark: Terms in 'cursive letters' are defined in annex A).

## 1. Principles

### 1.1. *Aim of the standard*

The aim of this standard is to define requirements to ensure organic status of textiles, from harvesting of the raw materials, through environmentally and socially responsible manufacturing up to labelling in order to provide a credible assurance to the end consumer.

### 1.2. *Scope and structure*

This standard covers the production, processing, manufacturing, packaging, labelling, trading and distribution of all textiles made from at least 70% certified organic natural fibres. The final products may include, but are not limited to fibre products, yarns, fabrics, clothes and home textiles.

The standard focuses on compulsory criteria only. Some of the criteria are compliance requirements for the entire facility where GOTS products are processed (2.4.10. Environmental management, 2.4.11. Waste water treatment, 3. Social minimum criteria and 4.1. Auditing of processing, manufacturing and trading stages), whereas others are criteria relevant for the specific products subject to certification (all other criteria of chapter 2 of this standard).

### 1.3. *Operational and product certification*

Processors, manufacturers and traders that have demonstrated their ability to comply with the relevant GOTS criteria in the corresponding certification procedure to an *Approved Certifier* receive a GOTS operational certificate (= scope certificate). Their textile goods produced in compliance with this standard qualify for GOTS certification.

### 1.4. *Label grading and Labelling*

The standard provides for a subdivision into two label-grades. The only differentiation for subdivision is the minimum percentage of 'organic' / 'organic - *in conversion*' material in the certified product. Labelling of products as '*in conversion*' is only possible, if the standard, on which the certification of the fibre production is based, permits such labelling for the fibre in question.

Textile goods (finished or intermediate) produced in compliance with this standard by a *Certified Entity* and certified by an *Approved Certifier* (= *GOTS Goods*) may be sold, labelled or represented as:

a) "organic" or "organic - *in conversion*"

or

b) "made with (x %) organic materials" or "made with (x %) organic - *in conversion* materials" and the immediate reference

"Global Organic Textile Standard".(or the short form "GOTS").

Labelling must be completed by a reference to the *Approved Certifier* who has certified the *GOTS Goods* (e.g. certifier's name and/or logo) and a reference to the *Certified Entity* (e.g. *Certified Entity's* name and/or licence n°).

An *Approved Certifier* must have reviewed and approved the intended labelling in advance of its application.

Where the GOTS logo is used, its application must be in compliance with the 'Licensing and Labelling Guide'.

In any case the GOTS labelling can only be physically applied by a *Certified Entity*.

### **1.5. Reference documents and availability**

Beside this standard the International Working Group has released the following official reference documents that provide for binding provisions and requirements for *Approved Certifiers* and users of the GOTS:

- Manual for the Implementation of the Global Organic Textile Standard: provides interpretations and clarifications for specific criteria of GOTS. Its purpose is to prevent any inconsistent, inappropriate or incorrect interpretation of the standard. It further contains requirements and detailed specifications for the application of the GOTS and the implementation of the related quality assurance system for certifiers.
- Licensing and Labelling Guide: specifies the licensing conditions for companies participating in the GOTS certification system and defines the corresponding licence fees. It further sets the requirements for the use of the registered trademark 'Global Organic Textile Standard' (GOTS logo) in order to ensure correct and consistent application on products as well as in advertisements, catalogues or other publications.
- Approval Procedure and Requirements for Certification Bodies: specifies the approval and monitoring procedures and sets out the related requirements for Certification Bodies to implement the GOTS certification and quality assurance system.

This standard, the reference documents and any further relevant public information as released by the International Working Group are introduced and available for download on the website [www.global-standard.org](http://www.global-standard.org)

## **2. Criteria**

### **2.1. Requirements for organic fibre production**

Approved are natural fibres that are certified organic and fibres from conversion period certified according to a recognised international or national organic farming standard by a certification body that has a valid accreditation for the recognised standard it certifies against and that is IFOAM accredited or internationally recognised (according to ISO 65). Certifying of products as *'in conversion'* is only possible, if the standard on which the certification of the fibre production is based, permits such a certification for the fibre in question. Conversion nature of fibres must be stated as specified in chapter 1.4. of this standard.

### **2.2. Requirements for material composition**

#### **2.2.1. Products sold, labelled or represented as "organic" or "organic – in conversion"**

No less than 95% of the fibre content of the products must be of certified organic origin or from *'in conversion'* period (identified and labelled as specified in chapters 1.4 and 2.1 of these standards). Up to 5% of the fibre content may be made of non-organic fibres that are listed in chapter 2.4.9. The remaining balance must not contain any genetically modified fibres. Blending organic and conventional fibres of the same type in the same product is not permitted. The percentage figures refer to the weight of the fibre content of the products in conditioned status.

#### **2.2.2. Products sold, labelled or represented as "made with x % organic materials" or "made with x % organic – in conversion materials"**

No less than 70% of the fibre content of the products - excluding accessories - must be of certified organic origin or from *'in conversion'* period (identified and labelled as specified in the chapters 1.4 and 2.1 of these standards). Up to 30% of the fibre content of the product may be made of non-organic fibres that are listed in chapter 2.4.9. The remaining balance must not contain any genetically modified fibres. The remaining balance may contain a maximum of 10% of regenerated or synthetic fibres as listed in chapter

2.4.9, except that socks, leggings and *sportswear* may contain a maximum of 25% of those regenerated or synthetic fibres. Blending organic and conventional fibres of the same type in the same product is not permitted. The percentage figures refer to the weight of the fibre content of the products in conditioned status.

### 2.3. General requirements for chemical inputs in all processing stages

#### 2.3.1. Prohibited and restricted inputs

Substance group	Criteria
<b>Aromatic solvents</b>	Prohibited
<b>Chlorophenols (including their salts and esters)</b>	Prohibited (such as TCP, PCP)
<b>Complexing agents and active detergents</b>	Prohibited are: - APEO, nonylphenol, octylphenol; - EDTA, DTPA and similar persistent complexing agents; - LAS, $\alpha$ -MES - PFOS, PFOA
<b>Fluorocarbons</b>	Prohibited
<b>Formaldehyde and other short-chain aldehydes</b>	Prohibited
<b>Genetically modified organisms (GMO's) and their derivates (including enzymes derived from genetically modified organisms)</b>	Prohibited
<b>Biocides</b>	Prohibited
<b>Halogenated solvents</b>	Prohibited
<b>Heavy metals</b>	Prohibited, <i>inputs</i> must be ' <i>heavy metal free</i> '. Impurities must not exceed the limit values as defined in annex A. Exceptions valid for dyes and pigments are set in chapter 2.4.6. and 2.4.7.
<b>Inputs that contribute permanent AOX to primary effluent</b>	Restricted: Prohibited are <i>inputs</i> containing more than 1% permanent AOX

Substance group	Criteria
Organotin compounds	Prohibited (such as DBT, MBT, TBT, DOT, TPhT)
Quaternary ammonium compounds	Prohibited. An exception valid in the dyeing process is set in chapter 2.4.6.
<b>Substances and preparations that are prohibited with a recognised internationally or a nationally valid legal character</b>	Prohibited
<b>Substances and preparations having restrictions in usage with a recognised internationally or nationally legal character</b>	The same restrictions apply, provide the <i>substances</i> and <i>preparations</i> are not already prohibited or have stricter restrictions criteria according to this standard. <i>Substances</i> listed in regulation EC 552/2009 (amending regulation EC 1907/2006 (REACH), annex XVII), the 'candidate list of substances of very high concern for authorisation' of the European Chemicals Agency (ECHA) and the restricted substance list (RSL) of the American Apparel & Footwear Association (AAFA) are prohibited.

### 2.3.2. Requirements related to hazards and toxicity

Substance group	Criteria
<b>Inputs that are assigned to specific risk phrases (hazard statements) related to health hazards</b>	Prohibited are <i>substances</i> that are assigned to any of the following risk phrases or combinations thereof (in accordance with the classification of Directive 67/548EEC):  R26: Very toxic by inhalation R27: Very toxic in contact with skin R28: Very toxic if swallowed R39: Danger of very serious irreversible effects R40: Limited evidence of a carcinogenic effect R45: May cause cancer R46: May cause heritable genetic damage R48: Danger of serious damage to health by prolonged exposure R49: May cause cancer by inhalation R60: May impair fertility R61: May cause harm to the unborn child

	<p>R62: Possible risk of impaired fertility  R63: Possible risk of harm to the unborn child  R68: Possible risk of irreversible effects</p> <p>Prohibited are <i>preparations</i> that contain at least one <i>substance</i> that is assigned to any of these risk phrases or combinations thereof and <i>preparations</i> that are directly assigned to any of these risk phrases or combinations thereof (in accordance with the classification of Directive 1999/45 EC, amended by Directive 2006/8/EC). For <i>inputs</i> assessed according to the Global Harmonized System (GHS) the equivalent hazard statements apply (annex 3 of GHS respective annex 7 of regulation EC 1272/2008).</p>
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<b><i>Substance group</i></b>	<b><i>Criteria</i></b>
<p><b><i>Inputs</i> that are assigned to specific risk phrases (hazard statements) related to environmental hazards</b></p>	<p>Prohibited are <i>preparations</i> that are assigned to any of the following (combinations of) risk phrases(in accordance with the classification of Directive 1999/45EC, amended by Directive 2006/8/EC):</p> <p>R50: Very toxic to aquatic organisms  R50/53: Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment  R51/53: Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment  R54: Toxic to flora  R55: Toxic to fauna  R56: Toxic to soil organisms  R58: May cause long-term adverse effects in the environment  R59: Dangerous for the ozone layer</p> <p>Prohibited are <i>substances</i> that are assigned to any of these (combinations of) risk phrases, if applied as direct <i>input</i> (in accordance with the classification of Directive 67/548EEC). For <i>inputs</i> assessed according to the Global Harmonized System (GHS) the equivalent hazard statements apply (annex 3 of GHS respective annex 7 of regulation EC 1272/2008).</p>

All *preparations* applied must further comply with the following requirements:

Parameter	Criteria
Oral Toxicity <sup>1)</sup>	LD <sub>50</sub> > 2000 mg/kg <sup>2)</sup>
Aquatic Toxicity <sup>3)</sup>	LC <sub>50</sub> , EC <sub>50</sub> , IC <sub>50</sub> > 1 mg/l
Relation of biodegradability / eliminability <sup>4)</sup> to aquatic toxicity <sup>3)</sup>	Only allowed, if: < 70% and > 100 mg/l > 70% and > 10 mg/l > 95% and > 1 mg/l
Bio-accumulativity / Biodegradability	<i>Substances</i> , known to be 'bio-accumulative' and not biodegradable <sup>5)</sup> are prohibited.

1) Performing animal tests to determine unknown LD<sub>50</sub> values is prohibited. Instead alternative methods to OECD 203 [96hr] (such as conclusions on analogy, in vitro test) may be used to determine unknown values

2) If the toxicity is only relating to the pH-value, alkaline and acids are accepted unless restricted in other parts of this standard.

3) Test method [duration]: LC<sub>50</sub> fish: Performing fish tests to determine unknown LC<sub>50</sub> fish values is prohibited. Instead alternative methods to OECD 203 [96hr] (such as conclusions on analogy, fish egg test, in vitro test) may be used to determine unknown values; EC50 daphnia, OECD 202 [48hr]; algae IC50, OECD 201 [72hr]

4) Testing methods: OECD 301 A, OECD 301, E, ISO 7827, OECD 302 A, ISO 9887, OECD 302 B, ISO 9888 or OECD 303A; alternatively to meet the 70% level a *preparation* tested with one of the methods OECD 303A or ISO 11733 a percentage degradation of at least 80% must be shown - or if tested with one of the methods OECD 301 B, ISO 9439, OECD 301 C, OECD 302 C, OECD 301 D, ISO 10707, OECD 301 F, ISO 9408, ISO 10708 or ISO 14593 a percentage degradation of at least 60% must be shown. To meet the 95% level, if tested with any of the mentioned methods a percentage degradation of 95% must be shown. Testing duration with each method is 28 days.

5) Testing requirement: >70% OECD 302A [28d] or equivalent testing method according to footnote 4, except test methods related to eliminability (OECD 302B)

### 2.3.3. Assessment basis for chemical inputs

Basis for assessment of all chemical *inputs* (*substances* and *preparations*) is the Material Safety Data Sheet (MSDS), prepared according to an applicable recognised norm or directive. The *Approved Certifiers* should, where appropriate and felt necessary, include further sources of information (such as additional toxicological and environmental data on specific components of the auxiliary agents, test reports and independent lab analysis) in the assessment.

Certifiers with approval for this specific scope are authorised to issue conformity documents to the chemical supply industry listing the trade names of *preparations* that have been assessed and found to be compliant with the criteria of this standard.

All chemical *inputs* must have been approved by a GOTS *Approved Certifier* prior to its usage.

## **2.4. Specific requirements for processing and test parameters**

### **2.4.1. Separation and Identification**

All stages through the processing chain must be established so as to ensure that organic and conventional fibres are not commingled and that organic fibres are not contaminated by contact with prohibited *substances*.

All organic raw materials must be clearly labelled and identified as such at all stages of the processing chain.

### **2.4.2. Spinning**

Allowed *inputs* include paraffin, paraffin oils and *substances* derived from natural raw materials only.

### **2.4.3. Sizing and weaving / knitting**

Allowed sizing agents include starch, starch derivatives, other natural *substances* and CMC (carboxymethylcellulose). Polyvinylalcohol (PVA) and Polyacrylate (PAC) may be used for no more than 25% of the total sizing in combination with natural *substances* only, calculated for the chemical without water.

Knitting / weaving oils must not contain heavy metals. Other *inputs* must be derived from natural raw materials only.

### **2.4.4. Non woven manufacture**

Allowed non-woven manufacturing processing includes only mechanical compaction, webbing and entangling such as hydro entanglement.

#### 2.4.5. Pre-treatment stages, wet processing

Pre-treatment stage	Criteria
<b>Ammonia treatment</b>	Prohibited - Exception: allowed for after-treatment of wool, if performed in closed system.
<b>Bleaches</b>	On basis of oxygen only (peroxides, ozone, etc.). <i>Approved Certifiers</i> may grant exceptions for non-cotton fibre products where oxygen bleaches are not sufficiently functional.
<b>Boiling, kiering, washing</b>	Allowed are auxiliaries that meet the basic requirements as set in chapter 2.3.1. and 2.3.2. only. Washing detergents must not contain phosphates.
<b>Chlorination of wools</b>	Prohibited
<b>Desizing</b>	Allowed are GMO free enzymatic desizing and other auxiliaries that meet the basic requirements as set in chapter 2.3.1. and 2.3.2. only
<b>Mechanical/thermal treatments</b>	Allowed
<b>Mercerization</b>	Allowed with auxiliaries that meet the basic requirements as set in chapter 2.3.1. and 2.3.2. only. Alkaline must be recycled.
<b>Optical brightening</b>	Allowed are optical brighteners that meet all criteria for the selection of dyes and auxiliaries as set in chapter 2.4.6. Dyeing.
<b>Other, not explicitly listed pre-treatment methods</b>	Allowed are mechanical / thermal pre-treatment methods and such with the use of <i>substances</i> on basis of <i>natural materials</i> .

#### 2.4.6. Dyeing

Parameter	Criteria
<b>Selection of dyes and auxiliaries</b>	Allowed are natural dyes, synthetic dyes and auxiliaries that meet the requirements as set in chapter 2.3.1 and 2.3.2. only. Prohibited are azo dyes that release carcinogenic arylamine compounds (MAC III, category 1,2,3) Prohibited are (disperse) dyes classified as allergenic. Prohibited are dyes containing heavy metals as an integral part of the dye molecule (e.g.

Parameter	Criteria
	<p>heavy metal dyes, certain reactive dyes) under consideration of the following exceptions:</p> <ul style="list-style-type: none"> <li>- General exception for Iron</li> <li>- Specific exception for copper: permitted up to 3% per weight in blue, green and turquoise dyestuffs.</li> </ul> <p>Auxiliaries used for fixing purposes in the dyeing process may exceptionally contain quaternary ammonium compounds if they meet the basic requirements as set in chapter 2.3.1. and 2.3.2.</p>

#### 2.4.7. Printing

Parameter	Criteria
<b>Selection of dyes, pigments and auxiliaries</b>	<p>Allowed are dyes, pigments and auxiliaries that meet the requirements as set in chapter 2.3.1 and 2.3.2 of this standard.</p> <p>Flock printing is allowed with natural and regenerated fibres if the fibres used meet the limit values for residues as listed in chapter 2.4.16.</p> <p>Prohibited are dyes containing heavy metals as an integral part of the dye molecule (e.g. heavy metal dyes, certain reactive dyes) under consideration of the following exceptions:</p> <ul style="list-style-type: none"> <li>- General exception for Iron</li> <li>- Specific exception for copper: permitted up to 3% per weight in blue, green and turquoise dyestuffs only.</li> </ul> <p>Prohibited are discharge printing methods using aromatic solvents.</p> <p>Prohibited are plastisol printing methods using phthalates and PVC.</p> <p>Prohibited are azo dyes that release carcinogenic arylamine compounds (MAC III, category 1,2,3)</p>

#### 2.4.8. Finishing

Parameter	Criteria
<b>Selection of finishing methods and auxiliaries</b>	<p>Allowed are mechanical, thermal and other physical finishing methods.</p> <p>Allowed are natural and synthetic <i>inputs</i> that meet the basic requirements as set in chapter</p>

Parameter	Criteria
	<p>2.3.1 and 2.3.2 only.</p> <p>Prohibited are synthetic <i>inputs</i> used for anti-microbial finishing, coating, filling and stiffening, lustring and matting, (water- or oil-) repellent and proof finishing as well as weighting.</p> <p>Flame retardant finishing is exceptionally permitted if it is legally required in the country and for the product in question and if the <i>inputs</i> used meet the basic requirements stated in chapter 2.3.1.</p>

#### 2.4.9. Requirements for additional materials and accessories

Additional Materials	Criteria
Fibre materials accepted for the remaining non-organic balance of the product's material composition according to chapter 2.2.1. and 2.2.2.	<p>Allowed are:</p> <ul style="list-style-type: none"> <li>- conventional natural fibres (all non GMO vegetable and animal fibres)</li> <li>- mineral fibres (except asbestos)</li> <li>- regenerated fibres (cellulosic based such as viscose, modal, lyocell or acetate and protein based; the raw materials used must be non GMO)</li> <li>- synthetic (polymer) fibres: only polyamide, polyester and polyurethane (elastane)</li> </ul> <p>The additional fibre materials may be mixed with the organic fibres to the fabric or used in certain details of the product. From 1<sup>st</sup> January 2013 onwards polyester must be made from post-consumer recycled material.</p> <p>All additional materials must meet the limit values for residues as listed in chapter 2.4.16.</p>

Accessories	Criteria
Material in general	<p>Allowed are <i>natural materials</i> including biotic material (such as natural fibre, wood, leather, horn, bone, stone, shell) and inorganic material (such as minerals and metals).</p> <p>Regenerated and synthetic materials are only allowed, if their use is not restricted in the below list of accessories.</p> <p>Prohibited is the use of:</p> <ul style="list-style-type: none"> <li>- chrome (e.g. as component of a metal)</li> <li>- nickel (e.g. as component of a metal)</li> <li>- threatened timber</li> <li>- PVC</li> </ul>

Accessories	Criteria
	All materials used for accessories must not contain any prohibited <i>input</i> as listed in chapter 2.3.1 and must meet the limit values for residues as listed in chapter 2.4.16.
Appliqué	Allowed are <i>natural materials</i> only.
Buckles	Allowed are chains and tapes of <i>natural materials</i> only.
Buttons / press-studs	Allowed are <i>natural materials</i> . Plastic buttons are allowed if it can be demonstrated that buttons from <i>natural materials</i> are not available in sufficient quantity and with the required properties. From 1 <sup>st</sup> January 2013 onwards plastic buttons must be made from post-consumer recycled materials.
Cords / borders	Allowed are <i>natural materials</i> only.
Edgings	Allowed are <i>natural materials</i> and elasthane.
Elastic bands and yarns	No specific material restrictions.
Embroidery yarns	No specific material restrictions.
Fasteners / closing systems	Allowed are <i>natural materials</i> . Synthetic materials are allowed for such fasteners and closing systems where the required functionality is not achievable with <i>natural materials</i> (such as hook and loom fasteners, beam fasteners).
Inlays / Interface / Inter(linings)	Allowed are natural and regenerated materials only.
Labels	Allowed are natural and regenerated materials and polyester. From 1 <sup>st</sup> January 2013 onwards polyester must be made from post-consumer recycled material.
Pockets	Allowed are natural fibres only.
Seam bindings / hatbands	No specific material restrictions for seam bindings. Allowed are hatbands of <i>natural materials</i> only.
Sewing threads	No specific material restrictions.
Shoulder pads	Allowed of natural and regenerated materials. Also mixtures of those materials with polyester are allowed. From 1 <sup>st</sup> January 2013 onwards polyester must be made from post-consumer recycled material.
Supports and Frames	Allowed are natural materials only.
Zips	No specific material restrictions.
Other, not explicitly listed accessories	Allowed are <i>natural materials</i> . Approved certifiers may grant exceptions for other materials if the required properties cannot be achieved by using <i>natural materials</i> .

#### **2.4.10. Environmental management**

Operators must have a written environmental policy. Depending on the processing stages performed, the policy should include:

- person responsible
- procedures to minimise waste and discharges
- procedures for monitoring waste and discharges
- procedures to follow in case of waste and pollution incidents
- documentation of staff training in the conservation of water and energy, the proper and minimal use of chemicals and their correct disposal
- programme for improvement

Wet processing units must keep full records of the use of chemicals, energy, water consumption and waste water treatment, including the disposal of sludge. In particular they must continuously measure and monitor waste water temperature, waste water pH and sediment quantities.

#### **2.4.11. Waste water treatment**

Wastewater from all wet processing sites must be treated in an internal or external functional wastewater treatment plant before discharged to surface waters. The applicable national and local legal requirements for waste water treatment (including limit values with regard to pH, temperature, TOC, BOD, COD and residues) must be fulfilled. Wastewater from wool scouring sites must, when discharged to surface waters after treatment (whether on-site or off-site), have a COD content of less than 45 g/kg greasy wool. Treatment of wastewater from water retting of bast fibres must achieve a reduction of COD (or TOC) of at least 95% for hemp fibres and 75% for all other bast fibres. Wastewater from all other wet-processing sites must, when discharged to surface waters after treatment (whether on-site or off site), have a COD content of less than 20 g/kg of textile output expressed as an annual average. Any treated effluent that is discharged to surface waters, must have a pH between 6 and 9 (unless the pH of the receiving water is outside this range) and a temperature of less than 40C° (unless the temperature of the receiving water is above this value). The copper content must not exceed 0,5 mg/l.

Wastewater analyses must be performed and documented periodically at normal operating capacity.

#### **2.4.12. Storage, packaging and transport**

Organic textile products must be stored and transported in such a manner as to prevent contamination by prohibited *substances* and commingling with conventional products or substitution of the contents.

Packaging material must not contain PVC.

Transport means and routes must be documented.

In cases where pesticides/biocides must be used in storerooms / transport means, they have to comply with the applicable international or national organic production standard.

In the event that treatment of a raw organic fibre product with a *substance* that does not comply with the applicable international or national organic production standard is legally required in an importing country and for the product in question (e.g. by governmental phytosanitary regulations), a derogation for the application of the prohibited *substance* may be granted by the importer's GOTS *Approved Certifier*, provided that:

- a) No alternative treatment is permitted by the importing country's legislation (e.g. phytosanitary regulations), as documented by a statement from the responsible government agency; and
- b) Prior to acceptance by the GOTS certified importer the treated raw organic fibre product must be tested for residues of the prohibited *substance* under the supervision of the importer's GOTS *Approved Certifier*, with no such residues being detected.

#### **2.4.13. Record keeping & internal quality assurance**

All operational procedures and practices must be supported by effective documented control systems and records that enable to trace:

- The origin, nature and quantities of organic products which have been delivered to the unit
- The nature, quantities and consignees of *GOTS Goods* which have left the unit
- Any other information such as origin, nature and quantities of raw materials, accessories and chemical *inputs* delivered to the unit and the composition of manufactured products that may be required for the purposes of proper inspection of the operation

*Certified Entities* purchasing organic fibres must receive and maintain transaction certificates (=certificates of inspection), issued by a recognised certifier and certified in accordance with the criteria of chapter 1.4 for the whole quantity purchased.

*Certified Entities* purchasing *GOTS Goods* must receive and maintain a proof on the GOTS certified status (e.g. transaction certificate) issued by an *Approved Certifier* for the whole quantity of *GOTS Goods* purchased.

The consignee of any organic fibres and *GOTS Goods* must check the integrity of the packaging or container and verify the origin and nature of the certified products from the information contained in the product marking and corresponding documentation (e.g. invoice, bill of lading, transaction certificate) upon receipt of the certified products.

A product whose GOTS compliant status is in doubt may only be put into processing or packaging after elimination of that doubt.

#### **2.4.14. Technical quality parameters**

Any final product labelled according to these standards should comply with the following technical quality parameters. Information about any (potential) non-compliance(s) must be indicated by the licensee of the final product in the product declaration.

<b>Parameters</b>	<b>Criteria</b>	<b>Test method (equivalent test methods)</b>
<b>Rubbing fastness, dry for fibre blends</b>	3-4 3	ISO 105x12 (AATCC 8, DIN 54021, JIS L0849)
<b>Rubbing fastness, wet</b>	2	DIN 54021 ISO 105x12 (AATCC 8, DIN 54021, JIS L0849)
<b>Perspiration fastness, alkaline and acid for fibre blends</b>	3-4 3	ISO 105 E04 (AATCC 15, DIN 54020, JIS L0848)
<b>Light fastness</b>	3-4	ISO 105 B02 (AATCC 16 option 3, DIN 54004, JIS L0843)
<b>Dimensional changes after washing Knitted/hosiery: Woven:</b>	max. 8% max. 3%	ISO 6330 (AATCC 135 (fabrics) and 150 (garments), DIN 53920, JIS L1018)
<b>Saliva fastness</b>	"FAST" for baby and children's clothing	LMBG B 82.10-1
<b>Washing fastness when washed at 60 °C</b>	3-4	ISO 105 C03 (AATCC 61 option 3A (at 140 °F), DIN EN 20105-C03, JIS L0844)

<b>Washing fastness of animal fibre material and blends thereof when washed at 30 °C</b>	3-4	ISO 105 C01 (DIN EN 20105-C03), analogue with reduced washing temperature
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#### 2.4.15. Limit values for residues in GOTS Goods

GOTS Goods need to comply with the following chemical quality parameters:

<b>Parameter</b>	<b>Criteria</b>	<b>Test method</b>
<b>Arylamines with carcinogenic properties (amine-releasing azo dyes MAC III, category 1,2,3)</b>	< 30 mg/kg	EN 14362-1
<b>AOX</b>	< 5.0 mg/kg	Extraction with boiling water, adsorption on charcoal, AOX-Analyzer, ISO 9562 i.A. <sup>1)</sup>
<b>Disperse dyes (classified as allergenic or carcinogenic)</b>	< 30 mg/kg	DIN 54231
<b>Formaldehyde</b>	< 16 mg/kg	Japanese Law 112, ISO 14184-1 i.A.
<b>Glyoxal and other short-chain aldehydes</b>	< 20 mg/kg	Extraction, HMBT, Photometry UV/VIS
<b>pH value</b>	4.5 – 9.0 (no skin contact) 4.5 – 7.5 (skin contact and baby-wear)	DIN EN 1413
<b>Chlorophenols (PCP, TeCP)</b>	< 0.01 mg/kg	VDI 4301-3, i.A.
<b>o-Phenylphenole</b>	< 1.0 mg/kg	Extraction, DFG/S19, GC/MS
<b>Pesticides, sum parameter</b>		§ 64 LFGB L 00.0034
<b>All natural fibres (except shorn wool), cert. organic</b>	< 0.1 mg/kg	

Parameter	Criteria	Test method
<b>Shorn wool, cert. organic</b>	< 0.5 mg/kg	
<b>Heavy metals</b>	<u>In eluate</u> : figures in mg/kg refer to the textile	Elution DIN EN ISO 105-E04 DIN 38406-E29
<b>Antimony (Sb)</b>	< 0.2 mg/kg	
<b>Arsenic (As)</b>	< 0.2 mg/kg	
<b>Lead (Pb)</b>	< 0.2 mg/kg	
<b>Cadmium (Cd)</b>	< 0.1 mg/kg	
<b>Chromium (Cr)</b>	< 1.0 mg/kg	
<b>Chromium VI (Cr-VI)</b>	< 0.5 mg/kg	DIN EN ISO 105-E04, DIN 38405-D24
<b>Cobalt (Co)</b>	< 1.0 mg/kg	
<b>Copper (Cu)</b>	< 25 mg/kg	
<b>Nickel (Ni)</b>	< 1.0 mg/kg	
<b>Mercury (Hg)</b>	< 0.02 mg/kg	
<b>Selenium (Se)</b>	< 0.2 mg/kg	
<b>Tin (Sn)</b>	< 2.0 mg/kg	
<b>Organotin compounds, individually TBT, TphT, DBT, DOT MBT</b>	< 0.05 mg/kg < 0.1 mg/kg	Extraction, E-DIN 38407-13 i.A. quantification with GC/MS
<b>Phthalates (DINP, DNOP, DEHP, DIDP, BBP, DBP, DIBP), sum parameter</b>	< 100 mg/kg	DIN EN 15777: 2009-12

1) The determination of the residue of halogenated compounds in the textile follows an extraction of the textile with boiling hot water. The extracted halogenated compounds will be adsorbed on charcoal. The charcoal with the adsorbed organic halogenated compounds will be analyzed following the ISO 9562 in adaption.

#### 2.4.16. Limit values for residues in additional materials and accessories

Additional materials and accessories (in accordance with the criteria of chapter 2.4.9.) used for *GOTS Goods* need to comply with the following chemical quality parameters.

Parameter	Criteria	Test method
<b>Arylamines with carcinogenic properties (amine-releasing azo dyes MAC III, category 1,2,3)</b>	< 30 mg/kg	EN 14362-1
<b>AOX</b>	< 5.0 mg/kg	Extraction with boiling water, adsorption on charcoal, AOX-Analyzer ISO 9562 i.A. <sup>1)</sup>
<b>Disperse dyes (classified as allergenic or carcinogenic)</b>	< 30 mg/kg	DIN 54231
<b>Formaldehyde</b>	< 300 mg/kg (no skin contact) < 75 mg/kg (skin contact) < 16 mg/kg (babywear)	Japanese Law 112 ISO 14184-1 i.A.
<b>Glyoxal and other short-chain aldehydes</b>	< 20 mg/kg	Extraction, HMBT, Photometry UV/VIS
<b>pH value</b>	4.5 – 9.0 (no skin contact) 4.5 – 7.5 (skin contact and babywear)	DIN EN 1413
<b>Chlorophenols (PCP, TeCP)</b>	< 0.05 mg/kg	VDI 4301-3, i.A.
<b>Pesticides, sum parameter</b>		DIN 38409-14 i.A.
<b>All natural fibres (except shorn wool)</b>	< 0.5 mg/kg	
<b>Shorn wool</b>	< 1.0 mg/kg	
<b>Heavy metals</b>	<u>In eluate</u> : figures in mg/kg refers to	Elution DIN EN ISO 105-E04, DIN 38406-E29

Parameter	Criteria	Test method
	additional material or accessory	
<b>Arsenic (As)</b>	< 0.2 mg/kg	
<b>Lead (Pb)</b>	< 0.2 mg/kg	
<b>Cadmium (Cd)</b>	< 0.1 mg/kg	
<b>Chromium (Cr)</b>	< 1.0 mg/kg	
<b>Chromium VI (Cr-VI)</b>	< 0.5 mg/kg	DIN EN ISO 105-E04, DIN 38405-D24
<b>Cobalt (Co)</b>	< 1.0 mg/kg	
<b>Copper (Cu)</b>	< 50 mg/kg	
<b>Nickel (Ni)</b>	< 1.0 mg/kg	
<b>Mercury (Hg)</b>	< 0.02 mg/kg	
<b>Selenium (Se)</b>	< 0.2 mg/kg	
<b>Tin (Sn)</b>	< 2.0 mg/kg	
<b>Nickel release</b>	< 0.5 µg/cm <sup>2</sup> /week	EN 12472, EN 1811
<b>Organotin compounds, individually</b> <b>TBT, TphT, DBT, DOT</b> <b>MBT</b>	< 0.05 mg/kg < 0.1 mg/kg	Extraction, E-DIN 38407-13 i.A. quantification with GC/MS
<b>Phthalates (DINP, DNOP, DEHP, DIDP, BBP, DBP, DIBP) sum parameter</b>	< 100 mg/kg	DIN EN 15777: 2009-12

1) The determination of the residue of halogenated compounds in the textile follows an extraction of the textile with boiling hot water. The extracted halogenated compounds will be adsorbed on charcoal. The charcoal with the adsorbed organic halogenated compounds will be analyzed following the ISO 9562 in adaption.

### **3. Minimum social criteria**

#### **3.1. *Scope***

The following social criteria apply to all textile processing and manufacturing stages. As soon as applicable minimum social criteria will be introduced to recognised organic farming standards, these will apply to the farm level as well.

For adequate implementation and assessment of the following specific criteria the corresponding key conventions of the International Labour Organization (ILO) have to be taken as the relevant basis for interpretation.

#### **3.2. *Employment is freely chosen***

There is no forced or bonded labour.

Workers are not required to lodge "deposits" or their identity papers with their employer and are free to leave their employer after reasonable notice.

#### **3.3. *Freedom of association and the right to collective bargaining are respected***

Workers, without distinction, have the right to join or form trade unions of their own choosing and to bargain collectively.

The employer adopts an open attitude towards the activities of trade unions and their organisational activities.

Workers representatives are not discriminated against and have access to carry out their representative functions in the workplace.

Where the right to freedom of association and collective bargaining is restricted under law, the employer facilitates, and does not hinder, the development of parallel means for independent and free association and bargaining.

#### **3.4. *Working conditions are safe and hygienic***

A safe and hygienic working environment must be provided, bearing in mind the prevailing knowledge of the industry and of any

specific hazards. Adequate steps must be taken to prevent accidents and injury to health arising from, associated with, or occurring in the course of work, by minimising, so far as is reasonably practicable, the causes of hazards inherent in the working environment.

Workers must receive regular and recorded health and safety training, and such training must be repeated for new or reassigned workers.

Access to clean toilet facilities and to potable water, and, if appropriate, to rest areas, food consuming areas and sanitary facilities for food storage must be provided.

Accommodation, where provided, must be clean, safe, and meet the basic needs of the workers.

The company observing the code must assign responsibility for health and safety to a senior management representative.

### **3.5. *Child labour must not be used***

There must be no new recruitment of child labour.

Companies must develop or participate in and contribute to policies and programmes which provide for the transition of any child found to be performing child labour to enable her or him to attend and remain in quality education until no longer a child.

Children and young persons under 18 must not be employed at night or in hazardous conditions.

These policies and procedures including the interpretation of the terms "child" and "child labour" must conform to the provisions of the relevant ILO conventions C138 and C182.

### **3.6. *Living wages***

Wages and benefits paid for a standard working week meet, at a minimum, national legal standards or industry benchmark standards, whichever is higher. In any event wages should always be enough to meet basic needs and to provide some discretionary income.

All workers must be provided with written and understandable information about their employment conditions including wages before they enter employment and about the particulars of their wages for the pay period concerned each time that they are paid.

Deductions from wages as a disciplinary measure are not permitted nor must any deductions from wages unless provided for by national law without the express permission of the worker concerned. All disciplinary measures should be recorded.

### **3.7. Working hours are not excessive**

Working hours must comply with national laws and benchmark industry standards, whichever affords greater protection.

In any event, workers must not be required to work in excess of 48 hours per week on a regular basis, and must be provided with at least one day off for every 7 day period on average. Overtime must be voluntary, must not exceed 12 hours per week, must not be demanded on a regular basis and must always be compensated at a premium rate.

### **3.8. No discrimination is practised**

There is no discrimination in hiring, compensation, access to training, promotion, termination or retirement based on race, caste, national origin, religion, age, disability, gender, marital status, sexual orientation, union membership or political affiliation.

### **3.9. Regular employment is provided**

To every extent possible work performed must be on the basis of recognised employment relationship established through national law and practice.

Obligations to employees under labour or social security laws and regulations arising from the regular employment relationship must not be avoided through the use of labour-only contracting, sub-contracting, or home-working arrangements, or through apprenticeship schemes where there is no real intent to impart skills or provide regular employment, nor must any such obligations be avoided through the excessive use of fixed-term contracts of employment.

### **3.10. Harsh or inhumane treatment is prohibited**

Physical abuse or discipline, the threat of physical abuse, sexual or other harassment and verbal abuse or other forms of intimidation must be prohibited.

### **3.11. Social Compliance Management**

Operators must have a policy for social accountability to ensure that the social criteria can be met. They must support the implementation and monitoring of the social criteria by:

- nominating a person responsible for social accountability
- monitoring compliance with the social criteria and implementing necessary improvements at its facilities
- informing its workers about the content of the minimum social criteria
- maintaining records of the name, age, working hours and the wages paid for each worker
- maintaining and providing appropriate safety equipment and materials to its workers
- recording and investigating complaints from workers or third parties related to the adherence to the social criteria and maintaining records about any necessary corrective measures arising from them
- refraining from disciplinary measures, dismissals or other forms of discrimination against workers for providing information concerning observance of the social criteria

## **4. Quality assurance system**

### **4.1. Auditing of processing, manufacturing and trading stages**

Operators from post harvest handling up to garment making and final packing as well as *traders* of *GOTS Goods* must undergo an on-site annual inspection cycle (including possible unannounced inspections) and must hold a valid operational certificate. *Traders* having an annual turnover with *GOTS Goods* less than 5000 € and retailers only selling to end consumers are exempt from the certification obligation; provide they do not (re-)pack or (re-)label *GOTS Goods*. The responsible *Approved Certifier* may further decide on exceptions from the annual onsite inspection cycle for small-scale sub-contractors with a low risk potential regarding environmental and social criteria. Such units must be clearly identified, must have a contract with the contracting *Certified Entity* (who is responsible for their compliance with these standards) and may be subject to inspection at the certifiers discretion.

The entity under whose name or brand the labelled GOTS Goods are sold to the end consumer is responsible for exercising due care in ensuring compliance of the products with this standard, the Licensing and Labelling Guide and further provisions as re-

leased by the International Working Group on Global Organic Textile Standard (IWG).

Certifiers must be authorised by the IWG for the specific scope(s) in which they offer certification services:

- ① Certification of mechanical textile processing and manufacturing operations and their products
- ② Certification of wet processing and finishing operations and their products
- ③ Certification of trading operations and related products

Basis for authorisation by the IWG is an accreditation of the certifier on basis of the IWG document 'Approval Procedure and Requirements for Certification Bodies' by the main co-operation partner of the IWG for this process, IOAS, or another recognised accreditation body.

#### **4.2. Testing of Technical Quality Parameters and Residues**

*Certified Entities* are expected to undertake testing in accordance with a risk assessment in order to assure compliance with this standard and in specific with the criteria of chapter 2.4.14 (Technical Quality Parameters) as well as 2.4.15 and 2.4.16 (Orientation Values for Residues in *GOTS Goods*, additional materials and accessories). All *GOTS Goods* and the components of these products should be included in this risk assessment and therefore potentially subject to testing. The testing frequency and the number of samples should be established according to this risk assessment.

Samples for residue testing may also be taken by the inspector during the required on-site inspection, either as back-up to the inspection process or in case of suspicion of contamination or non-compliance. Additional samples of goods may be taken from the supply chain at any time without advance notice.

Laboratories that are accredited according to ISO/IEC 17025 and that have appropriate experience in textile residue testing are approved to perform residue testing under this standard..

## Annex

### A) Definitions

Term	Definition for the purpose of this standard
<i>Approved Certifier</i>	Certification body which is approved by the IWG to perform inspections and certifications according to GOTS in the relevant scope.
' <i>Bio-accumulative</i> '	A <i>substance</i> is considered as (potentially) bio-accumulative, if BCF (= bio-concentration factor) $\geq 100$ or if $\log Pow$ (= logarithm of the n-octanol-water partition coefficient) $\geq 3$
<i>Certified Entity</i>	Processor, manufacturer or trader of <i>GOTS Goods</i> certified by an <i>Approved Certifier</i> .
<i>GOTS Goods</i>	Textile goods (finished or intermediate) produced in compliance with GOTS by a <i>Certified Entity</i> and certified by an <i>Approved Certifier</i> .
' <i>Heavy metal free</i> '	An <i>input</i> is considered as 'heavy metal free' if it does not contain heavy metals as a functional constituent and any impurities contained do not exceed the following limit values as set by ETAD: Antimony: 50ppm, Arsenic: 50ppm, Barium: 100ppm, Cadmium: 20ppm, Cobalt: 500ppm, Copper: 250ppm, Chrome: 100ppm, Iron: 2500ppm, Lead: 100 ppm, Manganese: 1000ppm, Nickel: 200ppm, Mercury: 4ppm, Selenium: 20ppm, Silver: 100ppm, Zinc: 1500ppm, Tin: 250ppm
' <i>In conversion</i> '	A product from an operation or portion thereof, which has completed at least 12 months under organic management and is under the supervision of a certification body.
<i>Input</i>	General term for all <i>substances</i> and <i>preparations</i> directly applied as textile auxiliary agents, dyes or pigments.
<i>Natural materials</i>	A <i>natural material</i> is any product or physical matter that comes from plants, animals, or the ground. Minerals and the metals that can be extracted from them are also considered to belong into this category (e.g. natural fibres, leather, wood, stones, shells, metals, seed and plant oils etc.).
' <i>Permanent AOX</i> '	AOX is permanent, if the molecular structure of the <i>input</i> contributes halogenated organic compounds to wastewater generated during fibre processing.
<i>Preparations</i>	Mixtures or solutions composed of two or more <i>substances</i> .
<i>Substances</i>	Chemical elements and their compounds as they occur in the natural state or as produced by industry.
<i>Sportswear</i>	<i>Sportswear</i> includes any garment that is functional or technical active wear, which requires it to perform properly with regard to stretch, sun block, insect repellent, moisture repellent, wrinkle repellent and

	breathability. Such a garment is intended to be suitable for activities such as walking, hiking, running, exercise, dance, and athletic pursuits, not including leisure or casual wear.
<i>Trader</i>	Entity trading with (=buying and selling) <i>GOTS Goods</i> in the supply chain between producer the fibre and retail merchant of the final product regardless if the goods are physically purchased. Agents that do not become proprietor of the goods are not considered as traders.

## B) List of abbreviations

### Organisations / Standards:

GOTS	Global Organic Textile Standard
IWG	International Working Group on GOTS (member organisations: IVN, JOCA, OTA, SA)
IVN	International Association Natural Textile Industry, Germany
JOCA	Japan Organic Cotton Association, Japan
OTA	Organic Trade Association, USA
SA	Soil Association, UK
AAFA	American Apparel & Foodwear Association (AAFA)
ECHA	European Chemicals Agency
ETAD	Ecological and Toxicological Association of Dyes and Organic Pigments Manufacturers
GHS	Global Harmonized System
IFOAM	International Federation of Organic Agriculture Movements
ILO	International Labour Organisation
ISO	International Organization for Standardization
IOAS	International Organic Accreditation Service
OECD	Organisation of Economic Cooperation and Development
REACH	EEC Regulation regarding Registration, Evaluation, Authorisation and Restriction of Chemicals

Others:

EC50	Effect concentration (50%)
IC50	Inhibition concentration (50% inhibition)
LC50	Lethal concentration (50% mortality)
$\alpha$ -MES	$\alpha$ -methyl ester sulphonate (C16/18)
AOX	Absorbable halogenated hydrocarbons and <i>substances</i> that can cause their formation.
APEO	Alkylphenoethoxylate
BBP	Benzylbutyl phthalate
BOD	Biological Oxygen Demand
COD	Chemical Oxygen Demand
DBP	Dibutyl phthalate
DBT	Dibutyltin
DEHP	Diethylhexyl phthalate
DIBP	Di-isobutyl phthalate
DIDP	Diisodecyl phthalate
DINP	Diisononyl phthalate
DNOP	Di-n-octyl phthalate
DTPA	Diethylenetriamine penta-acetate
EDTA	Ethylenediamine tetra-acetate
GMO	Genetically modified organisms
HMBT	2-Hydrazono-2,3-dihydro-3-methylbenzothiazole-hydrochloride
MAC	Maximum Allowable Concentration (of a <i>substance</i> at the working place)
MBT	Monobutyltin
LAS	Linear alkyl benzene sulphonate
PCB	Polychlorinated Biphenyls
PCP	Pentachlorophenol
PFOA	Perfluorooctanoic acid
PFOS	Perfluorooctane sulfonate
PVC	Polyvinyl chloride
TBT	Tributyltin
TeCP	Tetrachlorophenol
TOC	Total Organic Carbon
TPhT	Triphenyltin