

Pilot Circularity on Textile Waste: Webinar on HIGG FEM and GOTS Certification for Garment Sector in Cambodia

July 25, 2024



Implemented by

giz Deutsche Gesellschaft
für Internationale
Zusammenarbeit (GIZ) GmbH

FABRIC Cambodia

TAFTAC
Textile, Apparel, Footwear And Travel Goods Association in Cambodia

Welcome to Webinar on HIGG FEM and GOTS Certification

Organized by



Speakers





Tom Dao - ថ្ងៃទី 25 ខែកក្កដា ឆ្នាំ 2024

ការបណ្តុះបណ្តាល GOTS 7.0



ឯកសារយោង

ស្តង់ដារវាយនភ័ណ្ឌសរីរាង្គសកល (GOTS) កំណែ 7.0
កាលបរិច្ឆេទមានប្រសិទ្ធភាព៖ ថ្ងៃទី 1 ខែមីនា ឆ្នាំ 2024

តំណភ្ជាប់៖ https://global-standard.org/images/resource-library/documents/standard-and-manual/GOTS_7.0__SIGNED_.pdf

សៀវភៅណែនាំសម្រាប់ការអនុវត្តកម្មវិធី GOTS កំណែ 7.0
កាលបរិច្ឆេទមានប្រសិទ្ធភាព៖ ថ្ងៃទី 1 ខែមីនា ឆ្នាំ 2024

តំណភ្ជាប់៖ https://global-standard.org/images/resource-library/documents/standard-and-manual/Manual_for_the_Implementation_of_GOTS_V7.0__SIGNED_.pdf

ការយល់ព្រមលើសារធាតុគីមី និងគ្រឿងប្រើប្រាស់

តំណភ្ជាប់៖ <https://global-standard.org/the-standard/approval-of-chemicals-and-accessories>



1. GOTS Scopes

- 1a. GOTS Scopes
- 1b. GOTS labeling Grade

2. Traceability

- 2a. Record keeping, Internal Quality.
- 2b. Segregation, Storage, Packaging and Transport.

3. Material Requirements

4. Environment, Social and Governance Criteria

- 4a. Management Process
- 4b. Chemical Input
- 4c. Environmental Criteria
- 4d. Human Rights and Social Criteria
- 4e. Governance Criteria

5. Product Technical Quality Criteria

- 5a. Technical Quality Parameters
- 5b. Residue's limit value (Chemical)
- 5c. Accessories and additional fiber limit value

6. Special requirements for special products

- 6a. Textile Personal Care Products
- 6b. Food Contact Textiles

GLOBAL ORGANIC TEXTILE STANDARD (GOTS)

VERSION 7.0

March 2023

Effective Date: 1 March 2024

Global Standard gemeinnützige GmbH
Rotebühlstr. 102 · 70178 Stuttgart · Germany

www.global-standard.org



វិសាលភាពនៃ GOTS

វិសាលភាព 1:

វិញ្ញាបនបត្រនៃដំណើរការវាយនភ័ណ្ឌមេកានិចនិងប្រតិបត្តិការផលិតកម្មនិងរបស់ពួកគេ។ ផលិតផល។

វិសាលភាព 2:

វិញ្ញាបនបត្រនៃការដំណើរការសើមនិងប្រតិបត្តិការបញ្ចប់និងផលិតផលរបស់ពួកគេ។

វិសាលភាព 3:

ការបញ្ជាក់អំពីប្រតិបត្តិការពាណិជ្ជកម្ម និងផលិតផលដែលពាក់ព័ន្ធ

វិសាលភាព ៤:

ការយល់ព្រមលើភ្នាក់ងារជំនួយវាយនភ័ណ្ឌ (ធាតុគីមី) លើបញ្ជីវិជ្ជមាន

ស្តង់ដារនេះគ្របដណ្តប់លើការកែច្នៃ ការផលិត ការវេចខ្ចប់ ការដាក់ស្លាកសញ្ញា ការធ្វើពាណិជ្ជកម្ម និងការចែកចាយនៃវាយនភ័ណ្ឌទាំងអស់ដែលផលិតពីយ៉ាងហោចណាស់70% បញ្ជាក់សរីរាង្គធម្មជាតិសរសៃ. ផលិតផលចុងក្រោយអាចរួមបញ្ចូល ប៉ុន្តែមិនកំណត់ចំពោះជាតិសរសៃផលិតផល អំបោះ ក្រណាត់ សំលៀកបំពាក់ គ្រឿងវាយនភ័ណ្ឌម៉ូត (យកតាមខ្លួន ឬពាក់) ប្រដាប់ក្មេងលេងវាយនភ័ណ្ឌ វាយនភ័ណ្ឌផ្ទះ ពួក និងផលិតផលពួក ព្រមទាំងផលិតផលថែរក្សាផ្ទាល់ខ្លួនវាយនភ័ណ្ឌ



GOTS Label Grade និង Labeling

មានតែទំនិញវាយនភណ្ឌ (បានបញ្ចប់ ឬកម្រិតមធ្យម) ដែលផលិតដោយអនុលោមតាមស្តង់ដារនេះ ដោយ ក អង្គភាពដែលបានបញ្ជាក់និងបញ្ជាក់ដោយ អ វិញ្ញាបនប័ត្រដែលបានអនុម័ត(= ទទួលបាន ទំនិញ) អាចត្រូវបានលក់ ដាក់ស្លាក ឬតំណាង៖

<p>ការបំប្លែងសរីរាង្គ ឬសរីរាង្គ មិនតិចជាង 95% ($\geq 95\%$) នៃជាតិសរសៃ ខ្លឹមសារនៃផលិតផល - មិនរាប់បញ្ចូល គ្រឿងបន្លាស់</p>	<p>ផលិតដោយសារធាតុសរីរាង្គ (x %) ឬផលិតដោយសារ ធាតុសរីរាង្គ (x %) មិនតិចជាង 70% ($\geq 70\%$) នៃជាតិសរសៃខ្លឹមសារនៃ ផលិតផល - មិនរាប់បញ្ចូលគ្រឿងបន្លាស់</p>
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តម្រូវការផលិតកម្មសម្ភារៈសរីរាង្គ

នធម្មជាតិសរសៃដែលត្រូវបានបញ្ជាក់ 'សរីរាង្គ' ឬ 'សរីរាង្គ - នៅក្នុងការបំប្លែង' យោងទៅតាមស្តង់ដារណាមួយដែលត្រូវបានអនុម័តនៅក្នុង IFOAM Family of Standards សម្រាប់វិសាលភាពដែលពាក់ព័ន្ធនៃផលិតកម្ម (ដំណាំ ឬផលិតកម្មសត្វ) ដូចជាបទប្បញ្ញត្តិ (EC) 834/2007, USDA National Organic កម្មវិធី (NOP) ជាតិរបស់ APEDA កម្មវិធីសម្រាប់ផលិតកម្មសរីរាង្គ (NPOP) ស្តង់ដារសរីរាង្គរបស់ប្រទេសចិន GB/T19630 ។

ស្ថាប័នបញ្ជាក់ត្រូវមានការទទួលស្គាល់ត្រឹមត្រូវ និងទទួលស្គាល់សម្រាប់ស្តង់ដារដែលខ្លួនបញ្ជាក់។ ការទទួលស្គាល់ដែលទទួលស្គាល់គឺការទទួលស្គាល់ ISO 17065 ការទទួលស្គាល់ NOP និងការទទួលស្គាល់ IFOAM ។

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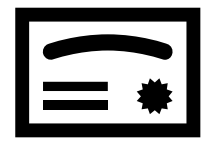
ការរក្សាកំណត់ត្រា ការធានាគុណភាពផ្ទៃក្នុង

នីតិវិធីប្រតិបត្តិការដើម្បីតាមដាន:


- ប្រភពដើម ធម្មជាតិ និងបរិមាណនៃសម្ភារៈ និងធាតុចូល
- លំហូរនៃទំនិញនៅក្នុងអង្គភាព
- ធម្មជាតិ បរិមាណ និងអ្នកទទួលទំនិញ GOTS ចាកចេញពីអង្គភាព
- ជាតិសរសៃសមាសភាពនៃផលិតផលដែលផលិត




រក្សាកំណត់ត្រា 5 ឆ្នាំ



វិញ្ញាបនបត្រ វិញ្ញាបនបត្រ និង វិញ្ញាបនបត្រប្រតិបត្តិការ



វិក្កយបត្រ, កំណត់ចំណាំ ដកជញ្ជូន លិខិតអនុម័ត



ពិនិត្យ និងផ្ទៀងផ្ទាត់ ប្រភពដើម នៅពេលទទួល



កំណត់សរសៃសរីរាង្គ ជាមួយនឹងវិក្កយបត្រ



កិច្ចសន្យាជាមួយអ្នកម៉ៅការបន្ត ដើម្បីអនុលោមតាមលក្ខណៈវិនិច្ឆ័យ GOTS

i មូល ចងក្រង និងចែករំលែកព័ត៌មានដែលមិនមែនជាពាណិជ្ជកម្មទាក់ទងនឹង ការវាស់វែងផលប៉ះពាល់ ប្រសិនបើ និងតាមតម្រូវការរបស់ GOTS។

ការបែងចែក ការផ្គត់ផ្គង់ ការវេចខ្ចប់ និងការដឹកជញ្ជូន



ពាណិជ្ជកម្ម B2B នៃទំនិញ GOTS

- រក្សាទុក និងដឹកជញ្ជូន ដើម្បីការពារការចម្លងមេរោគ ការបញ្ជូន ឬជំនួស។
- បំបែកសរសៃសរីរាង្គជាតិសរសៃធម្មតា។
- ដាក់ស្លាកឱ្យបានច្បាស់លាស់នូវសម្ភារៈ GOTS ទាំងអស់ ទំនិញនៅទូទាំងសង្វាក់ផ្គត់ផ្គង់។
- ឯកសារដឹកជញ្ជូន និងដឹកជញ្ជូន។
- ថ្នាំសម្លាប់សត្វល្អិត និងជីវគីមីត្រូវតែគោរពតាមស្តង់ដារសរីរាង្គ។
- **PVC មិនត្រូវបានអនុញ្ញាតទេ។**សម្រាប់ការវេចខ្ចប់។ កាត់បន្ថយការប្រើប្រាស់ប្លាស្ទិកសម្រាប់វេចខ្ចប់។

- ទំនិញពាណិជ្ជកម្ម B2C នៃទំនិញ GOTS គឺជញ្ជូនរួមជាមួយនឹងផលិតផលធម្មតា នៅពេលដែលមានស្លាកសញ្ញា GOTS។
- ការប្រើប្រាស់តែមួយ **ការព្យួរស្លាស្ទិចត្រូវបានហាមឃាត់**នៅក្នុង GOTS Goods។ ស្លាស្ទិចកែច្នៃឡើងវិញត្រូវបានអនុញ្ញាត។
- **PVC មិនត្រូវបានអនុញ្ញាតទេ។**នៅក្នុងការវេចខ្ចប់។ កាត់បន្ថយការប្រើប្រាស់ប្លាស្ទិកសម្រាប់វេចខ្ចប់។
- ក្រដាស / ក្រដាសកាតុងធ្វើកេស **ការវេចខ្ចប់ត្រូវតែកែច្នៃឡើងវិញ**ឬបញ្ជាក់សម្រាប់ព្រៃឈើប្រកបដោយនិរន្តរភាព (ឧទាហរណ៍៖ FSC CoC)។
- សរសៃវាយនភ័ណ្ឌសម្រាប់ការវេចខ្ចប់ឬ **ខ្សែអក្សរ hangtag** ត្រូវតែជា៖
 - សរីរាង្គដែលបានបញ្ជាក់ - ផ្នែក 5.2.7
 - ការបម្លែងសរីរាង្គដែលបានបញ្ជាក់ - 5.2.7
 - បានទទួលយកសរសៃបន្ថែម - 5.2.8

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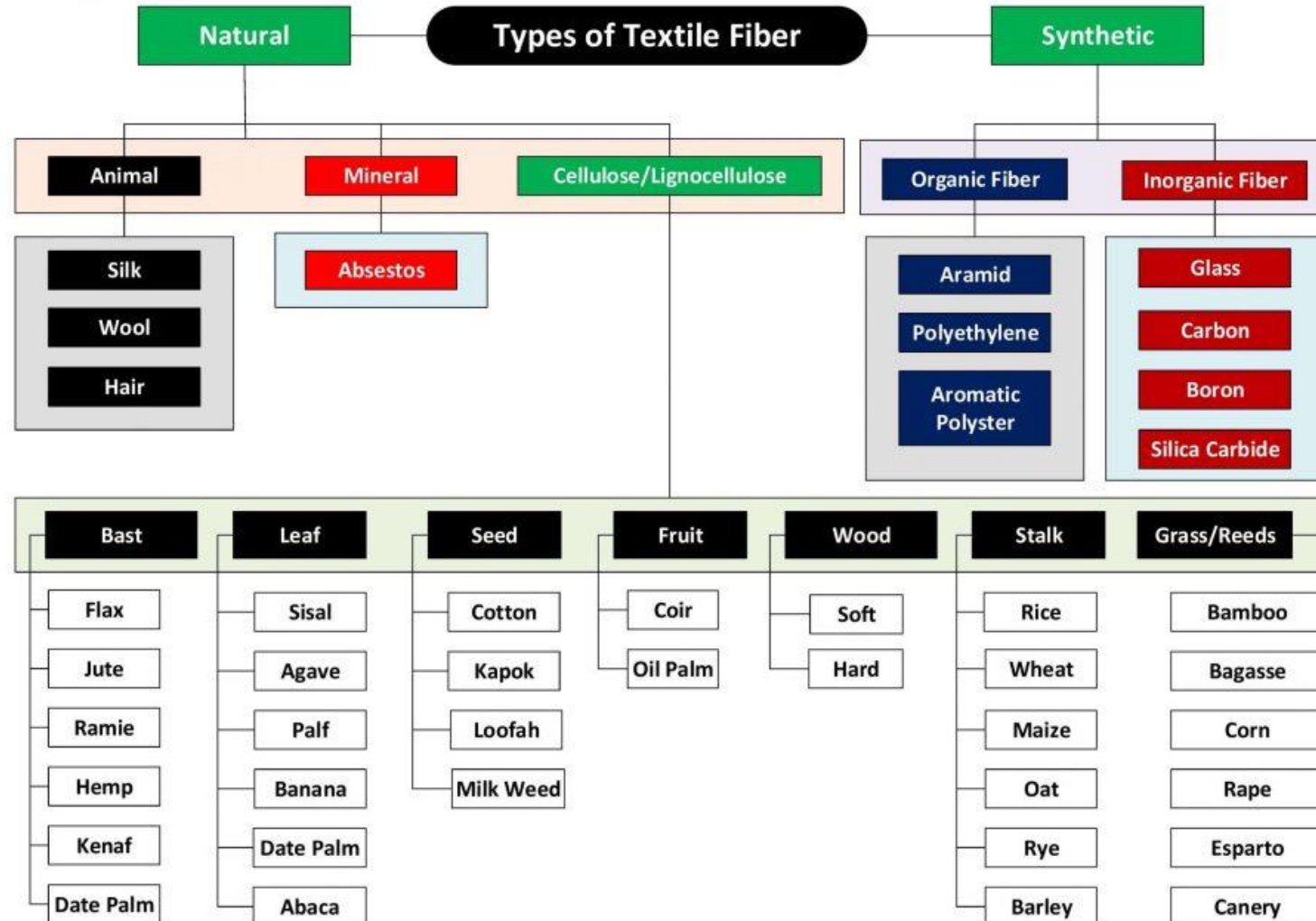
March 2023

Effective Date: 1 March 2024

Global Standard gemeinnützige GmbH
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ចំណាត់ថ្នាក់នៃវាយនភ័ណ្ឌសរសៃ



មើលបន្ថែមទៀតអំពី Textile នៅលើ Facebook

តំបន់: <http://gnktt.weebly.com/classification-of-textile-fibers.html>



បន្ថែមជាតិសរសៃតម្រូវការសម្បារ:

សម្រាប់ទំនិញ GOTS ដែលត្រូវបានលក់ ដាក់ស្លាក ឬតំណាងថា "ផលិតដោយ (x%) វត្ថុធាតុដើមសរីរាង្គ" ឬ "ផលិតដោយ (x%) វត្ថុធាតុបំប្លែងសរីរាង្គ រហូតដល់ 30% ($\leq 30\%$) នៃផលិតផលជាតិសរសៃសមាសភាពអាចមាន "បន្ថែមជាតិសរសៃសម្បារ:"។

Natural vegetable or animal fibres, regenerated fibres, other:	
1. Non-GMO conventional, virgin or recycled natural vegetable fibres	✓ ALLOWED <i>Individually or in combination as a sum total up to 30% ($\leq 30\%$)</i>
2. Non-GMO conventional, virgin or recycled animal fibres	
3. Organic, mechanically recycled natural vegetable or animal fibres derived from Pre-consumer Waste of GOTS Goods (intermediate or finished)	
4. Lyocell or protein-based regenerated fibres derived from non-GMO sources and certified organic raw materials or pre- or post-consumer waste or from raw materials certified according to a programme that verifies compliance with sustainable forestry management principles	
5. PLA (polylactic acid) fibre produced from non-GMO bio-mass sources	



បន្ថែមជាតិសរសៃតម្រូវការសម្បារ:

សម្រាប់ទំនិញ GOTS ដែលត្រូវបានលក់ ដាក់ស្លាក ឬតំណាងថា "ផលិតដោយ (x%) វត្ថុធាតុដើមសរីរាង្គ" ឬ "ផលិតដោយ (x%) វត្ថុធាតុបំប្លែងសរីរាង្គ រហូតដល់ 30% ($\leq 30\%$) នៃផលិតផលជាតិសរសៃសមាសភាពអាចមាន "បន្ថែមជាតិសរសៃសម្បារ:"។

Recycled synthetic (polymer) fibres:

<ol style="list-style-type: none"> Derived from pre- or post-consumer waste: only polyester, polyamide, polypropylene, elastomultiester (elasterell-p) and polyurethane (elastane) 	<p>✓ ALLOWED</p> <p><i>Individually or in combination as a sum total up to 20% ($\leq 20\%$)</i></p>
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Regenerated fibres, virgin synthetic (polymer) fibres, other:

<ol style="list-style-type: none"> Regenerated fibres like lyocell, viscose or modal: raw materials used shall be non-GMO Virgin synthetic (polymer) fibres: only polyamide, polypropylene, elastomultiester (elasterell-p) and polyurethane (elastane) Stainless steel fibres and mineral fibres 	<p>✓ ALLOWED</p> <p><i>Individually or in combination as a sum total up to 10% ($\leq 10\%$)</i></p>
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បន្ថែមជាតិសរសៃតម្រូវការសម្បារ:

សម្រាប់ទំនិញ GOTS ដែលត្រូវបានលក់ ដាក់ស្លាក ឬតំណាងថា "ផលិតដោយ (x%) វត្ថុធាតុដើមសរីរាង្គ" ឬ "ផលិតដោយ (x%) វត្ថុធាតុបំប្លែងសរីរាង្គ រហូតដល់ 30% ($\leq 30\%$) នៃផលិតផលជាតិសរសៃសមាសភាពអាចមាន "បន្ថែមជាតិសរសៃសម្បារ:"។

REQUIREMENTS FOR ADDITIONAL FIBRE TYPES	CRITERIA
Prohibited fibre types (miscellaneous):	
1. Conventional cotton (virgin, recycled, non-GMO)	X PROHIBITED
2. Conventional angora hair fibre	
3. Virgin polyester	
4. Acrylic	
5. Asbestos, carbon and silver fibres	
6. Mulesed wool	
7. Any other not explicitly permitted fibres	

Table 1: Allowed and Prohibited Additional Fibres

គ្រឿងបន្លាស់ដែលត្រូវបានអនុញ្ញាត និងហាមឃាត់



សម្ភារៈជាទូទៅ (មានសុពលភាពសម្រាប់ appliqués, ព្រំដែន, buckles, ប៊ូតុងនិងចុច -studs, ខ្សែ, edgings, ក្រុមយឺតនិង yarns, yarns ប៉ាក, fasteners និងប្រព័ន្ធបិទ, កាសែត adhesive ប្រើសម្រាប់ fusing, hatbands, lace ប្រើជាការតុបតែង, linings, inlays, interface, labels (heat-transfer/ adhesive/ care/ GOTS), interlinings, pocket liners, seam binding, sewing threads, shoulders, padding for undergarments, trims, zippers, soles in footwear and any other unexpectedly listed accessories)

<ol style="list-style-type: none"> Natural Materials include biogenic⁴ material (such as (organic or conventional) natural fibre, wood, leather, horn, bone, shell) and non-biotic material (such as minerals, metals, stone) 	<p>✓ ALLOWED</p>
<ol style="list-style-type: none"> Regenerated or synthetic material 	
<ol style="list-style-type: none"> Asbestos Carbon fibres Silver (filament, treated) fibres Chromium (e.g. as a component of metal or in leather tanning, except that stainless steel is permitted) Nickel (e.g. as a component of metal, except that stainless steel is permitted) Material from threatened animals, plants and timber Chlorinated plastics (e.g. PVC) 	<p>X PROHIBITED</p>

គ្រឿងបន្លាស់ដែលត្រូវបានអនុញ្ញាត និងហាមឃាត់



Filling, stuffing

- **For textile fibre use** (textile fibres used as fillings are not considered as Accessories)

1. Textile fibre materials certified to organic or Organic in-conversion	✓ ALLOWED
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- **For non-textile material use**

2. Only Natural Materials are permitted and shall be from certified organic or Organic in-conversion production in case such certification is applicable for the kind of material used (e.g. for plant-based materials such as grain spelt or animal based-materials such as feathers).	✓ ALLOWED
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- **For latex foam use** (for filling or stuffing)

3. Latex foam made from certified organic or Organic in-conversion latex or from latex certified according to a program that verifies compliance with sustainable forestry management principles.	✓ ALLOWED
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Support and frame

! The requirements as specified in the row 'material in general' apply.

1. Latex foam used in mattresses shall be made from certified organic or Organic in-conversion latex or from latex certified according to a program that verifies compliance with sustainable forestry management principles.	✓ ALLOWED
2. Polyurethane foams are not permitted in mattresses or other textile bedding products.	X PROHIBITED

Non-slip floor covering

- **Natural backing materials:** ✓ ALLOWED

1. Natural backing materials shall satisfy requirements in Sections 4.2.2 and 4.2.3.
2. Latex shall be made from certified organic or Organic in-conversion latex or from latex certified according to a program that verifies compliance with sustainable forestry management principles.
3. Natural inorganic materials (such as dolomite) may be used in conjunction with this backing material and shall satisfy Sections 4.2.2 and 4.2.3.

- **Synthetic backing materials** X PROHIBITED

Cotton bud sticks

1. Natural Materials	✓ ALLOWED
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Table 2: Allowed and Prohibited Accessories

1. GOTS Scopes

- 1a. GOTS Scopes
- 1b. GOTS labeling Grade

2. Traceability

- 2a. Record keeping, Internal Quality.
- 2b. Segregation, Storage, Packaging and Transport.

3. Material Requirements

4. Environment, Social and Governance Criteria

- 4a. Management Process
- 4b. Chemical Input
- 4c. Environmental Criteria
- 4d. Human Rights and Social Criteria
- 4e. Governance Criteria

5. Product Technical Quality Criteria

- 5a. Technical Quality Parameters
- 5b. Residue's limit value (Chemical)
- 5c. Accessories and additional fiber limit value

6. Special requirements for special products

- 6a. Textile Personal Care Products
- 6b. Food Contact Textiles

GLOBAL ORGANIC TEXTILE STANDARD (GOTS)

VERSION 7.0

March 2023

Effective Date: 1 March 2024

Global Standard gemeinnützige GmbH
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ដំណើរការគ្រប់គ្រងដោយឧស្សាហ៍ព្យាយាម

ដំណើរការឧស្សាហ៍

ព្យាយាម៖

- បង្កើនភាពឧស្សាហ៍ព្យាយាមក្នុងគោលនយោបាយ និងប្រព័ន្ធគ្រប់គ្រង។
- កំណត់អត្តសញ្ញាណផលប៉ះពាល់ជាក់ស្តែង ឬសក្តានុពល។
- បញ្ឈប់ ទប់ស្កាត់ ឬកាត់បន្ថយផលប៉ះពាល់អវិជ្ជមាន។
- បទការអនុវត្តនិងលទ្ធផល។
- ទំនាក់ទំនងរបៀបដែលផលប៉ះពាល់ត្រូវបានដោះស្រាយ។
- បើកសំណងនៅពេលសមស្រប។

តម្រូវការ៖

- អនុវត្តចំពោះអង្គភាពដែលមានវិញ្ញាបនបត្រ GOTS ទាំងអស់ ដោយពិចារណាលើទំហំ បរិបទ និងរចនាសម្ព័ន្ធ។
- ការអនុវត្តជាបន្តបន្ទាប់ និងការកែលម្អជាលំដាប់។
- អនុម័តគោលនយោបាយស្តីពីការប្រតិបត្តិអាជីវកម្មប្រកបដោយការទទួលខុសត្រូវ។
- ពង្រឹងប្រព័ន្ធគ្រប់គ្រងសម្រាប់ភាពឧស្សាហ៍ព្យាយាម។
- ចាត់តាំងអ្នកគ្រប់គ្រងជាន់ខ្ពស់ និងការទទួលខុសត្រូវផ្ទៃក្រុមប្រឹក្សាភិបាលសម្រាប់ការត្រួតពិនិត្យ។
- ផ្តល់ការបណ្តុះបណ្តាល និងបែងចែកធនធានសម្រាប់ដំណើរការឧស្សាហ៍ព្យាយាម។

ការគ្រប់គ្រងគីមី

ការប្រើប្រាស់គីមី

- ប្រើតែសារធាតុគីមីក្នុងបញ្ជីវិជ្ជមាន GOTS ។
- លិខិតអនុញ្ញាតត្រឹមត្រូវសម្រាប់សារធាតុគីមី GOTS
- សន្លឹកទិន្នន័យសុវត្ថិភាពសម្រាប់សារធាតុគីមីទាំងអស់។

ការវាយតម្លៃគីមី៖

- **ការអនុម័តជាមុន**៖ រាល់ធាតុគីមីទាំងអស់ត្រូវតែត្រូវបានវាយតម្លៃមុនពេលទិញ។
- **ការយល់ព្រម**៖ អ្នកបង្កើតគីមីត្រូវតែដាក់ពាក្យសុំការអនុម័តដោយ GOTS វិសាលភាពអន្តរជាតិ។
- **អ្នកបង្កើតគីមី** ត្រូវតែរៀបចំតាមទម្រង់ដែលបានអនុញ្ញាត។ ឧទាហរណ៍៖ ប្រព័ន្ធសុខុមនីយកម្មសត្វល្អ (GHS)
- **GOTS បញ្ជីវិជ្ជមាន** រាល់ធាតុគីមី និងឈ្មោះពាណិជ្ជកម្មរបស់ពួកគេត្រូវបានចុះបញ្ជីក្នុងបញ្ជីវិជ្ជមាន GOTS នៅលើគេហទំព័រ GOTS ។



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▶ APPROVED CHEMICAL INPUTS

APPROVED CHEMICAL INPUTS

Free Text (e.g. trade name, name of company)

Type / Utilisation ▾

Country ▾

GOTS Version ▾

SEARCH RESULTS

តម្រូវការសាកល្បង

ការធ្វើតេស្តគីមីទូទៅ

- ការបញ្ជូលគីមីទូទៅ (វិសាលភាព 4)
- គីមីជាក់លាក់ក្នុងដំណើរការដំណាក់កាលនីមួយៗ
- ប្រេងម៉ាស៊ីន - លោហៈធ្ងន់ដោយឥតគិតថ្លៃ

ផលិតផលអ្នកប្រើប្រាស់

ចុងក្រោយ

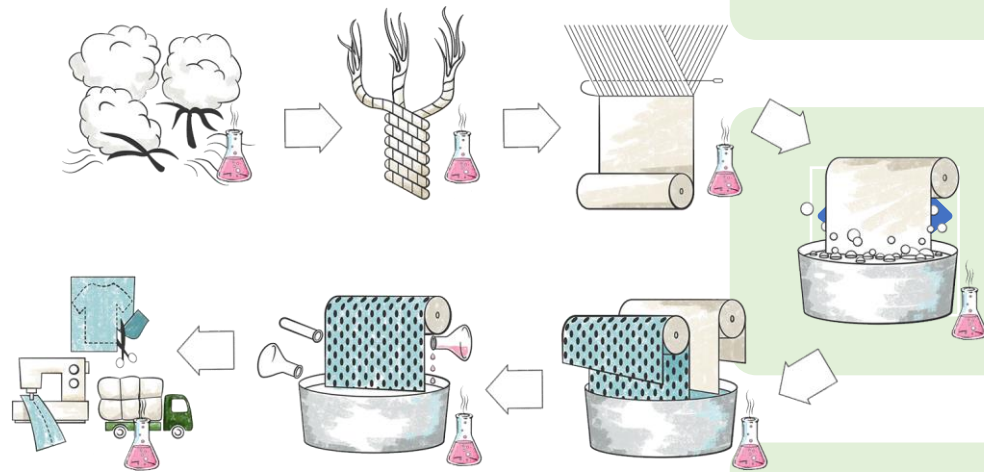
- ជារបៀបត្រីគុណភាពបច្ចេកទេស
- GOTS តម្លៃកំណត់ទំនិញសម្រាប់សំណល់
- GOTS តម្លៃកំណត់ទំនិញសម្រាប់ Fiber បន្ថែម

របាយការណ៍សាកល្បងប

វិស័យ

- របាយការណ៍សាកល្បងទឹកសំណល់
- របាយការណ៍តេស្តបំពុលអាកាស
- របាយការណ៍តេស្តបំពុលសំឡេង
- របាយការណ៍បរិមាណឧស្ម័នផ្ទះកញ្ចក់

ការបញ្ចូលគីមី



Input is the **general term** used for all the substances and preparations directly applied as textile **auxiliary, dyes, pigments** in the textile wet processing

Use of inputs in **Textile Wet Processing**



General **requirements for chemical inputs** in all processing stages for textile as **per GOTS standard 4.2.2**(Prohibited and Restricted Inputs) and **4.2.3**(Requirements Related to Hazard and Toxicity)

ការបញ្ជូលគីមី



Table - Prohibited and Restricted Chemicals

SUBSTANCE GROUP	CRITERIA	SUBSTANCE GROUP	CRITERIA	SUBSTANCE GROUP	CRITERIA
Aromatic and/or halogenated solvents	× PROHIBITED	Heavy metals		Cyclic siloxanes (D4, D5, D6)	
Flame retardants		1. Inputs that are not 'Heavy Metal Free'	× PROHIBITED	1. D4: above the classification limit of 0.025% (250 mg/kg)	× PROHIBITED
1. Chlorinated flame retardants	× PROHIBITED	2. Impurities shall not exceed the limit values as defined in Section 7		2. D5, D6: Inputs that contain ≥1000 mg/kg	
2. Brominated flame retardants		3. Dyes and pigments	I RESTRICTED Exceptions are set in sections 4.2.6.6. and 4.2.6.7.	Substances and Preparations that are prohibited for application in textiles with an internationally recognised or a nationally valid legal character	× PROHIBITED
3. Phosphate based flame retardants, listed in the Implementation Manual		Inputs (e.g. azo dyes and pigments) which release arylamines with carcinogenic properties (MAK III, category 1,2,3) and Aniline, free, (category 4)	× PROHIBITED	Substances and Preparations having restrictions in usage for application in textiles with an internationally recognised or a nationally valid legal character	<i>The same restrictions apply, provided the Substances and Preparations are not already prohibited or have stricter restrictions criteria according to this Standard.</i>
4. Flame retardants containing antimony or antimony trioxide		Inputs containing functional nanoparticles (= particles with a size < 100 nm)	× PROHIBITED	Substances and Preparations listed in regulation EC 552/2009 (amending regulation EC 1907/2006 (REACH), annex XVII), and the 'candidate list of Substances of very high concern (SVHC) for authorisation' of the European Chemicals Agency (ECHA) are prohibited.	× PROHIBITED
5. Disodium octaborate		Inputs with halogen containing compounds		Microplastics	
Chlorinated benzenes and toluenes	× PROHIBITED	1. Inputs that contain > 1% Permanent AOX	× PROHIBITED	1. Intentionally added synthetic Microplastics	× PROHIBITED
1. Such as mono, di, tri, tetra and penta- chlorophenols		2. Certain pigments (for printing)	I RESTRICTED Exceptions are set in section 4.2.6.7.	In-can preservatives in chemical Inputs	
Chlorophenols (including their salts and esters)	× PROHIBITED	Organotin compounds		1. In-can preservatives which do not meet the requirements of Sections 4.2.2 and 4.2.3	× PROHIBITED
Complexing agents and surfactants		1. Such as DBT, DMT, DOT, DPhT, DPT, MBT, MMT, MOT, MPhT, TBT, TCyHT, TeBT, TeET, TMT, TOT, TPhT, TPT	× PROHIBITED	2. Biocidal active Substance(s) that comply with European biocidal products regulation (BPR 528/2012) and are listed on the Union list of BPR for product type PT06 (preservatives for products during storage), which are accessible here are exceptionally allowed.	I EXCEPTION
1. All APs and APEOs (i.e. NP, OP, NPEO, OPEO, APEOs terminated with functional groups, APEO-polymers)	× PROHIBITED	Plasticizers		https://echa.europa.eu/en/information-on-chemicals/biocidal-active-substances	
2. EDTA, DTPA, NTA		1. PAH, phthalates and esters of phthalic acid, bisphenol A and all other plasticisers with endocrine disrupting potential	× PROHIBITED	Quinoline	× PROHIBITED
3. LAS, α-MES		Per- and polyfluoroalkyl Substances (PFAS)			
Endocrine Disruptors	× PROHIBITED	1. All PFAS compounds including PFCA (incl. PFOA), PFSA (incl. PFOS) FTOH, PFNA, PFHpA, PFDA, PFOSA, PTFE	× PROHIBITED		
Formaldehyde and other short-chain aldehydes		Quaternary ammonium compounds			
1. Inputs that contain or generate formaldehyde or other short-chain aldehydes (like glyoxal) during designated application	× PROHIBITED	1. DTDMAC, DSDMAC and DHTDMAC	× PROHIBITED		
Glycol derivatives		2. Chlorinated paraffins	× PROHIBITED		
1. All glycol derivatives listed in the Implementation Manual	× PROHIBITED	3. Short-chain chlorinated paraffins (SCCPs, C ₁₀₋₁₃)			
Genetically modified organisms (GMO)		4. Medium-chain chlorinated paraffins (MCCPs, C ₁₄₋₁₇)			
All inputs that:	× PROHIBITED				
1. Contain GMO					
2. Contain enzymes derived from GMO					
3. Are made from GMO raw materials (e.g., starch, surfactants or oils from GM plants)					
4. Contain GMO based traceability markers					

Table 3: Prohibited and Restricted Chemicals

SUBSTANCE GROUP	CRITERIA
Inputs which are classified with specific hazard statements (risk phrases) related to health hazards	
<ol style="list-style-type: none"> Substances which are classified with any of the following hazard statements/risk phrases, if applied as direct Input Preparations which are classified with any of the following hazard statements/risk phrases Preparations which contain at least one Substance which is classified with any of the following hazard statements <p>In accordance with the codification system of the Globally Harmonized System of Classification (GHS) as published by the United Nations, annex 3:</p> <ul style="list-style-type: none"> H300 Fatal if swallowed H310 Fatal in contact with skin H330 Fatal if inhaled H340 May cause genetic defects H341 Suspected of causing genetic defects H350 May cause cancer H351 Suspected of causing cancer H360 May damage fertility or the unborn child H361 Suspected of damaging fertility or the unborn child H370 Causes damage to organs H371 May cause damage to organs H372 Causes damage to organs through prolonged or repeated exposure <p><i>For Inputs assessed on the basis of GHS, where the implementation system does not provide for the codified H-statements, the corresponding hazard classes and categories of GHS, annex 3, apply. For Inputs assessed according to the 'risk phrase' classification (Directive 67/548EEC amended and appealed by Regulation EC 1272/2008), the equivalent risk phrases apply.</i></p>	× PROHIBITED

Inputs which are classified with specific hazard statements/risk phrases related to environmental hazards	
<ol style="list-style-type: none"> Substances which are classified with any of the following hazard statements/risk phrases, if applied as direct Input Preparations which are classified with any of the following hazard statements/risk phrases <p>In accordance with the codification system of the Globally Harmonized System of Classification (GHS) as published by the United Nations, annex 3:</p> <ul style="list-style-type: none"> H400 Very toxic to aquatic life H410 Very toxic to aquatic life with long-lasting effects H411 Toxic to aquatic life with long-lasting effects H420 Harms public health and the environment by destroying ozone in the upper atmosphere H433 Harmful to terrestrial vertebrates 	× PROHIBITED

SUBSTANCE GROUP	CRITERIA
Inputs which are bio-accumulative and not rapidly degradable	
<ol style="list-style-type: none"> Substances, if applied as direct Input, and Preparations classified with H413: 'May cause long-lasting harmful effects to aquatic life' that are both 'bio-accumulative'⁵ and not 'rapidly degradable'^{6 7} 	× PROHIBITED

Table 4: Hazards Restrictions in Chemical Inputs

All preparations applied shall further comply with the following requirements:

PARAMETER	CRITERIA
Oral Toxicity⁸	I RESTRICTED LD ₅₀ > 2000 mg/kg ⁹
Aquatic Toxicity¹⁰	I RESTRICTED LC ₅₀ , EC ₅₀ , IC ₅₀ > 1 mg/l
Relation of Biodegradability / Eliminability¹¹ to Aquatic Toxicity¹⁰	I RESTRICTED Only allowed, if: < 70% and > 100 mg/l > 70% and > 10 mg/l > 95% and > 1 mg/l

ដំណាក់កាលកែច្នៃវាយនភ័ណ្ណ





លក្ខណៈវិនិច្ឆ័យកែច្នៃវាយនភ័ណ្ណ

ដំណើរការដំបូង

ក្នុងករណីកប្បាសសរវាងសរសៃមុនពេលទទួលយកការចូលសរសៃទៅកាន់ខ្សែសង្វាក់ផ្គត់ផ្គង់ដែលមានការបញ្ជាក់ GOTS ការធ្វើតេស្តសំណល់ថ្នាំសម្លាប់សត្វល្អិត និងការធ្វើតេស្ត GMO និងត្រូវធ្វើឡើង។ សូមយោងទៅលើឯកសារវិញ្ញាបនប័ត្រ និងប៉ារ៉ាម៉ែត្រប្រតិបត្តិការសម្រាប់ GOTS Certified Gins ។

បង្វិល

អនុញ្ញាតគឺជាសារធាតុបន្ថែមដែលបំពេញតាមតម្រូវការមូលដ្ឋានដូចដែលបានកំណត់ក្នុងផ្នែក 4.2.2 និង 4.2.3 ប៉ុណ្ណោះ។ ផលិតផលប៉ារ៉ាម៉ែត្រដែលប្រើត្រូវចម្រាញ់ទាំងស្រុងជាមួយនឹងតម្លៃកំណត់សម្រាប់ប្រេងដែលនៅសល់ 0.5% ។ សំយោគសរសៃដែលនឹងត្រូវរំលាយនៅដំណាក់កាលដំណើរការនៅពេលក្រោយ ហាមប្រើ។



លក្ខណៈវិនិច្ឆ័យកែច្នៃវាយនភ័ណ្ឌ

ទំហំ និងត្យាញ/ប៉ាក់

ភ្នាក់ងារកំណត់ទំហំដែលត្រូវបានអនុញ្ញាតរួមមានម្សៅ ដេរីវេនៃម្សៅ សារធាតុធម្មជាតិផ្សេងទៀត និង CMC (carboxymethylcellulose)។

ទំហំសំយោគដែលបំពេញតាមតម្រូវការមូលដ្ឋានដូចដែលបានកំណត់ក្នុងផ្នែកទី 4.2.2 និង 4.2.3 អាចត្រូវបានប្រើប្រាស់មិនលើសពី 25% នៃទំហំសរុបដោយរួមផ្សំជាមួយសារធាតុធម្មជាតិតែប៉ុណ្ណោះ ដោយផ្អែកលើការគណនាបរិមាណសារធាតុគីមីដោយគ្មានទឹក។

ក្នុងករណីដែលទំហំសំយោគបែបនេះត្រូវបានកែច្នៃ/យកមកវិញពីទឹកសំណល់កំណត់ទំហំដំណើរការជាមួយនឹងសមាមាត្រ > 80% ពួកវាអាចត្រូវបានប្រើដោយគ្មានដែនកំណត់ក្នុងទំហំសរុប ប៉ុន្តែនៅតែបំពេញតាមតម្រូវការដូចដែលបានកំណត់ក្នុងផ្នែក 4.2.2 និង 4.2.3 ។

ធាតុចូលផ្សេងទៀតដែលប្រើក្នុងការកែច្នៃត្រូវទទួលបានពីវត្ថុធាតុដើមធម្មជាតិតែប៉ុណ្ណោះ

ផលិតកម្មមិនត្យាញ

ដំណើរការផលិតដែលមិនមែនជាត្យាញដែលត្រូវបានអនុញ្ញាត រួមបញ្ចូលតែការបង្រួមមេកានិច ការចងខ្សែ និងការជាប់គាំង ដូចជា hydroentanglement ។

ការព្យាបាលមុន និង ដំណាក់កាលដំណើរការសើម



Table - Pre-treatment and Other Wet Processing Stages

TREATMENT / PROCESS	CRITERIA
Ammonia treatment	× PROHIBITED
1. Ammonia treatment is allowed if performed in a closed system with a minimum of 99% recycling rate	! EXCEPTION
Bleaching	
1. Inputs that are oxygen-based only (peroxides, ozone, etc.)	✓ ALLOWED
2. Catalysers which contain manganese may be used provided that ETAD's manganese residue limit (1000 mg/kg, see Section 7) is met.	! EXCEPTIONS
3. Approved Certifiers may grant exceptions for non-cotton fibre products where oxygen bleaches are not sufficiently functional, provided they meet the basic requirements as set in Section 4.2.2 and 4.2.3	
Boiling, kiering, washing	
4. Only auxiliaries that meet the basic requirements set in Sections 4.2.2 and 4.2.3	✓ ALLOWED
5. Washing detergents shall not include phosphates	! RESTRICTED

TREATMENT / PROCESS	CRITERIA
Chlorination of wools	× PROHIBITED
Desizing	
1. Only GMO-free enzymatic desizing Inputs and other auxiliaries that meet the basic requirements set in Sections 4.2.2 and 4.2.3	✓ ALLOWED
Mechanical/thermal treatments	✓ ALLOWED
Mercerisation	
1. Auxiliaries that meet the basic requirements as set in Section 4.2.2 and 4.2.3 only.	✓ ALLOWED: Alkali shall be recycled
2. Ammonia may be allowed and used for mercerisation of cotton only if performed in a closed-loop system and only if a minimum of 99% of the ammonia is recycled in such a system	! EXCEPTION
Optical brightening	
1. Optical brightening agents (OBAs) that meet all criteria for the selection of dyes, pigments, inks and auxiliaries as set in Section 4.2.6.6.	✓ ALLOWED
Other (not explicitly listed pre-treatment methods)	
1. Mechanical/thermal pre-treatment methods and such with the use of Substances based on Natural Materials	✓ ALLOWED

Table 6: Restrictions in Pre-treatment and Wet Processing



ការលាបពណ៌ និងបោះពុម្ព

PARAMETER	CRITERIA
Selection of dyes, pigments and auxiliaries	
1. Natural and synthetic dyes, pigments, and auxiliaries that meet the requirements as set in Sections 4.2.2 and 4.2.3 only	✓ ALLOWED
2. Dyes (disperse) classified as allergenic	✗ PROHIBITED
3. Colourants classified or suspected as carcinogenic (H350/H351)	✗ PROHIBITED
4. Dyes and pigments containing heavy metals as integral part of the dye molecule (e.g. heavy metal dyes, certain reactive dyes), under the consideration of following exceptions:	✗ PROHIBITED
a. Iron	I EXCEPTION: General exception
b. Copper	I EXCEPTION: Specific exception <i>Permitted up to 5% per weight, for only blue, green and turquoise dyestuffs and pigments</i>
5. Inputs containing >1% Permanent AOX	✗ PROHIBITED
a. Only for yellow, green and violet pigments	I EXCEPTION: <i>Up to 5% Permanent AOX is permitted</i>
6. The use of natural dyes and auxiliaries that are derived from threatened species listed on the Red List of the IUCN	✗ PROHIBITED
7. Sensitising (H317) chemicals such as disperse dyes shall not be used, handled or manufactured unless proper and sufficient Occupational Health and Safety practices are adhered to as in Section 4.4.7 at Certified Entities and Chemical Formulators (see 4.2.5).	I RESTRICTED

Table 7: Restrictions in Dyeing

PARAMETER	CRITERIA
Selection of dyes, pigments and auxiliaries	
1. Natural and synthetic dyes, pigments, and auxiliaries that meet the requirements as set in Sections 4.2.2 and 4.2.3 only	✓ ALLOWED
2. Ammonia only as a required buffer in pigment printing paste	✓ ALLOWED
3. Flock printing is allowed with non-GMO natural and regenerated fibres that comply with Section 5.2.8	✓ ALLOWED
4. Dyes (disperse) classified as allergenic	✗ PROHIBITED
5. Colourants classified or suspected as carcinogenic (H350/H351)	✗ PROHIBITED
6. Dyes and pigments containing heavy metals as integral part of the dye molecule (e.g. heavy metal dyes, certain reactive dyes), under the consideration of following exceptions:	✗ PROHIBITED
a. Iron	I RESTRICTED: General exception
b. Copper	I RESTRICTED: Specific exception <i>Permitted up to 5% per weight, for only blue, green and turquoise dyestuffs and pigments</i>
7. Printing methods using aromatic solvents, phthalates or chlorinated plastics (e.g. PVC)	✗ PROHIBITED
8. Inputs containing >1% Permanent AOX	✗ PROHIBITED
a. Only for yellow, green and violet pigments	I EXCEPTION: <i>Up to 5% Permanent AOX is permitted</i>
9. The use of natural dyes and auxiliaries that are derived from threatened species listed on the Red List of the IUCN	✗ PROHIBITED
10. Sensitising (H317) chemicals such as disperse dyes shall not be used, handled or manufactured unless proper and sufficient Occupational Health and Safety practices are adhered to as in Section 4.4.7 at Certified Entities and Chemical Formulators (see 4.2.5)	I RESTRICTED

Table 8: Restrictions in Printing

Table - Finishing and Manufacturing

PARAMETER	CRITERIA
Selection of finishing methods and auxiliaries	
<ol style="list-style-type: none"> 1. Mechanical, thermal and other physical finishing methods 2. Natural and synthetic Inputs that meet the basic requirements as set in Sections 4.2.2 and 4.2.3 only 3. Stain removers that meet the basic requirements as set in Sections 4.2.2 and 4.2.3. 	✓ ALLOWED
<ol style="list-style-type: none"> 4. Use of synthetic Inputs for anti-microbial finishing (including biocides), coating, filling and stiffening, lustering and matting, as well as weighting. 5. Garment finishing methods that are considered to be harmful to the Workers (such as sandblasting of denim). 	✗ PROHIBITED

Table 9: Restrictions in Finishing and Manufacturing

តម្រូវការប្រេងម៉ាស៊ីន

- ប្រេងម៉ាស៊ីនដែលអាចទាក់ទងជាមួយទំនិញ GOTS ក្នុងអំឡុងពេលដំណើរការ / ដំណាក់កាលផលិត តាមបណ្តោយខ្សែសង្វាក់ផ្គត់ផ្គង់ GOTS និងត្រូវមិនមានលោហៈធ្ងន់។
- ប្រេងម៉ាស៊ីនបែបនេះអាចឆ្លងកាត់នីតិវិធីវាយតម្លៃការបញ្ចូលសារធាតុគីមីដោយស្ម័គ្រចិត្តសម្រាប់ការអនុម័ត ហើយអាចត្រូវបានចុះបញ្ជីក្នុងបញ្ជីវិជ្ជមាន GOTS ។



តម្រូវការសាកល្បង

✓ ការធ្វើតេស្តគីមីទូទៅ

- ការបញ្ជូលគីមីទូទៅ (វិសាលភាព 4)
- គីមីជាក់លាក់ក្នុងដំណើរការដំណាក់កាលនីមួយៗ
- ប្រេងម៉ាស៊ីន - លោហៈធ្ងន់ដោយឥតគិតថ្លៃ



ផលិតផលអ្នកប្រើប្រាស់

ចុងក្រោយ

- ជារបៀបត្រីគុណភាពបច្ចេកទេស
- GOTS តម្លៃកំណត់ទំនិញសម្រាប់សំណល់
- GOTS តម្លៃកំណត់ទំនិញសម្រាប់ Fiber បន្ថែម

របាយការណ៍សាកល្បងប

វិស័យ

- របាយការណ៍សាកល្បងទឹកសំណល់
- របាយការណ៍តេស្តបំពុលអាកាស
- របាយការណ៍តេស្តបំពុលសំឡេង
- របាយការណ៍បរិមាណឧស្ម័នផ្ទះកញ្ចក់

ប៉ារ៉ាម៉ែត្រគុណភាពបច្ចេកទេស

PARAMETER	CRITERIA	TEST METHOD
Rubbing fastness, dry	3-4	ISO 105 X12
for fibre blends	3	
Rubbing fastness, wet	2	ISO 105 X12
Perspiration fastness, alkaline and acidic		ISO 105 E04
Shade Change	3-4	
Staining on Multi-fibre	3-4	
Perspiration fastness, for fibre blends		ISO 105 E04
Shade Change	3	
Staining on Multi-fibre	3	
Light fastness	3-4	ISO 105 B02
Dimensional change after washing at 40 °C (30°C for animal fibre material and blends thereof) <i>! This criterion is only valid for the garment sector</i>		ISO 6330
Knitted/hosiery	max. ±8%	
Woven	max. ±3%	
Saliva fastness (only for Textiles for Babies)	5	BVL B 82.92.3 DIN 53160-1
Washing fastness when washed at 40°C		ISO 105 C06 A1M
Shade Change	3-4	
Staining on Multi-fibre	3-4	
Washing fastness of animal fibre material and blends thereof when washed at 30 °C		ISO 105 C06 A1S <i>without use of steel balls</i>
Shade Change	3-4	
Staining on Multi-fibre	3-4	

Table 10: Technical Quality Requirements for GOTS Goods

កំណត់តម្លៃសម្រាប់សំណល់នៅក្នុង GOTS

Good



PARAMETER	CRITERIA (limit values)	TEST METHOD
Alkylphenol (ethoxylates)		
NP, OP, HpP, PeP, NPEO, OPEO sum parameter	< 20 mg/kg	For AP: ISO 21084:2019 For NP, OP: Extraction, derivatisation, GC/MS or HPLC/MS
NP, OP, HpP, PeP sum parameter	< 10 mg/kg	For NPEO, OPEO: Extraction in methanol, derivatisation, HPLC/MS: EN ISO 18254-1 or NPLC: EN ISO 18254-2 (test range for NPEO and OPEO: 3-15 moles)
AOX	< 5 mg/kg	Extraction with boiling water, adsorption on charcoal; AOX analyser based on ISO 9562 Alternatively: HJ/T 83-2001
Arylamines		
With carcinogenic properties (amine-releasing azo dyes MAK III, category 1,2,3)	< 20 mg/kg	EN 14362-1 and -3; (HPLC/GCMS)
Aniline, free (MAK III category 4)	< 20 mg/kg	EN 14362-1; (HPLC/GCMS) without reductive cleavage
Disperse dyes classified as allergenic¹²	< 20 mg/kg	DIN 54231; (LC/MS)
Formaldehyde	< 16 mg/kg	Japanese Law 112; or based on ISO 14184-1
Glyoxal and other short-chain aldehydes (mono- and di-aldehydes up to C6)	< 20 mg/kg	Extraction (acc. to ISO 14184-1), ISO 17226-1 (HPLC)
PH value		ISO 3071
No skin contact	4.5-9.0	
All others	4.5-7.5	
Chlorophenols LFGB 82-02-08/ EN ISO 17070 (GC/MS)		
PCP	< 0.01 mg/kg	
TeCP	< 0.01 mg/kg	
TrCP	< 0.2 mg/kg	
DCP	< 0.5 mg/kg	
MCP	< 0.5 mg/kg	
O-Phenyl Phenol (OPP)	< 1.0 mg/kg	
Pesticides, sum parameter		
All natural fibres (except shorn wool)	< 0.1 mg/kg	§ 64 LFGB L 00.00-34 (GC/MS); § 64 LFGB L 00.00-114 (LC/MS/MS); L 00.00-115
Shorn wool	< 0.5 mg/kg	

PARAMETER	CRITERIA (limit values)	TEST METHOD
Extractable heavy metals In eluate. Figures in mg/kg refer to textile		
Antimony (Sb)	< 0.2 mg/kg	
Arsenic (As)	< 0.2 mg/kg	
Cadmium (Cd)	< 0.1 mg/kg	
Chromium (Cr)	< 1.0 mg/kg	
Cobalt (Co)	< 1.0 mg/kg	
Copper (Cu)	< 25.0 mg/kg	
Lead (Pb)	< 0.2 mg/kg	EN 16711-2, ISO 17294-2 (ICP/MS)
Nickel (Ni)	< 1.0 mg/kg	
Mercury (Hg)	< 0.02 mg/kg	
Selenium (Se)	< 0.2 mg/kg	
Tin (Sn)	< 2.0 mg/kg	
Manganese (Mn)	< 90 mg/kg	
Zinc (Zn)	< 750 mg/kg	
Barium (Ba)	< 1000 mg/kg	
Chromium VI (Cr-VI)	< 0.5 mg/kg	Elution using EN 16711-2, EN ISO 17075-2
Total heavy metals (in digested sample)		
Cadmium (Cd)	< 40 mg/kg	EPA 3050 B, ICP/MS, EPA 3051 or EN 16711-1
Lead (Pb)	< 50 mg/kg	EPA 3050 B, ICP/MS, EPA 3051 or EN 16711-1
Organotin compounds		
TBT	< 0.05 mg/kg	
TphT	< 0.05 mg/kg	
DBT	< 0.05 mg/kg	
DOT	< 0.05 mg/kg	Extraction in solvent, ISO 17353 (GC/MS) or ISO/TS 16179 or ISO 22744-1:2020, Part 1 and Part 2
MBT	< 0.1 mg/kg	
DMT, DPT, MoT, MMT, MPHT, TeBT, TCyHT, TMT, TOT, TPT, DphT, TeET	< 0.1 mg/kg	
Per- and polyfluoroalkyl Substances (PFAS) PFOA and related Substances such as		
Me-PFOA, Et-PFOA	< 0.025 mg/kg	DIN EN 17681-1
PFOS and PFAS C9-C14	< 0.025 mg/kg	DIN EN 17681-2
C9-C14 related PFAS	< 0.1 mg/kg	

PARAMETER	CRITERIA (limit values)	TEST METHOD
FTOH	< 0.01 mg/kg	
Phthalates, sum parameter		
Such as BBP, DBP, DCHP, DEHP, DEP, DHNUP, DHP, DHxP, DIBP, DIDP, DIHP, DIHxP, DINP, DMEP, DMP, DNOP, DNP, DPP, DPpP	< 100 mg/kg	DIN EN 15777:2009-12 (GC/MS) or ISO 14389
Polycyclic Aromatic Hydrocarbons (PAH)		
Sum	< 5.0 mg/kg	
Chrysene	< 0.5 mg/kg	
Benzo[a]anthracene	< 0.5 mg/kg	
Benzo[b]fluoranthene	< 0.5 mg/kg	
Benzo[j]fluoranthene	< 0.5 mg/kg	
Benzo[k]fluoranthene	< 0.5 mg/kg	
Benzo[a]pyrene	< 0.5 mg/kg	
Benzo(e)pyrene	< 0.5 mg/kg	
Dibenzo[a,h]anthracene	< 0.5 mg/kg	
Naphthalene	< 1.0 mg/kg	
Acenaphthylene	< 1.0 mg/kg	
Acenaphthene	< 1.0 mg/kg	
Fluorene	< 1.0 mg/kg	A/PS GS 2019:01 PAK
Phenanthrene	< 1.0 mg/kg	
Anthracene	< 1.0 mg/kg	
Fluoranthene	< 1.0 mg/kg	
Pyrene	< 1.0 mg/kg	
Indeno[1,2,3-cd]pyrene	< 1.0 mg/kg	
Benzo[g,h,i]perylene	< 1.0 mg/kg	
Cyclopenta (c,d)pyrene	< 1.0 mg/kg	
Dibenzo [a,e] pyrene	< 1.0 mg/kg	
Dibenzo [a,h] pyrene	< 1.0 mg/kg	
Dibenzo [a,i] pyrene	< 1.0 mg/kg	
Dibenzo [a,l] pyrene	< 1.0 mg/kg	
1-Methylpyrene	< 1.0 mg/kg	
Chlorinated paraffins, sum parameter		

កំណត់តម្លៃសម្រាប់សំណល់នៅក្នុងជាតិសរសៃបន្លែម



PARAMETER	CRITERIA (limit values)		TEST METHOD
	Baby and personal care products	All other products	
Arylamines			
With carcinogenic properties (amine-releasing azo dyes MAK III, category 1,2,3)	< 20 mg/kg	< 20 mg/kg	EN 14362-1 and -3; (HPLC/GCMS)
Aniline (MAK III category 4) (free)	< 20 mg/kg	< 50 mg/kg	EN 14362-1 (HPLC/GCMS), without reductive cleavage
Disperse dyes (classified as allergenic or carcinogenic)	< 20 mg/kg	< 20 mg/kg	DIN 54231; (LC/MS)
Formaldehyde			
Skin contact	< 16 mg/kg	< 75 mg/kg	Japanese Law 112; or based on ISO 14184-1
No skin contact		< 150 mg/kg	
Glyoxal and other short-chain aldehydes (mono- and di-aldehydes up to C6)			
Skin contact	< 20 mg/kg	< 75 mg/kg	Extraction (acc. to ISO 14184-1), ISO 17226-1 (HPLC)
No skin contact		< 300 mg/kg	
PH value	4.0 - 7.5	4.0 - 7.5	ISO 3071
Chlorophenols			

PARAMETER	CRITERIA (limit values)		TEST METHOD
	Baby and personal care products	All other products	
PCP	< 0.05 mg/kg	< 0.5 mg/kg	
TeCP	< 0.05 mg/kg	< 0.5 mg/kg	
TrCP	< 0.2 mg/kg	< 2.0 mg/kg	LFGB 82-02-08; (GC/MS)
DCP	< 0.5 mg/kg	< 3.0 mg/kg	
MCP	< 0.5 mg/kg	< 3.0 mg/kg	
Pesticides, sum parameter			
All natural fibres (except shorn wool)	< 0.5 mg/kg	< 1 mg/kg	§ 64 LFGB L 00.00-34 (GC/MS); § 64 LFGB L 00.00-114 (LC/MS/MS); L 00.00-115
Shorn wool	< 1.0 mg/kg	< 1 mg/kg	
Extractable heavy metals			
Arsenic (As)	< 0.2 mg/kg	< 1.0 mg/kg	
Cadmium (Cd)	< 0.1 mg/kg	< 0.1 mg/kg	
Chromium (Cr)	< 1.0 mg/kg	< 2.0 mg/kg	
Cobalt (Co)	< 1.0 mg/kg	< 4.0 mg/kg	EN 16711-2, ISO 17294-2 (ICP/MS)
Copper (Cu) ¹³	< 25.0 mg/kg	< 50.0 mg/kg	
Lead (Pb)	< 0.2 mg/kg	< 1.0 mg/kg (not for glass)	
Nickel (Ni)	< 1.0 mg/kg	< 4.0 mg/kg	
Mercury (Hg)	< 0.02 mg/kg	< 0.02 mg/kg	
Chromium VI (Cr-VI)	< 0.5 mg/kg	< 0.5 mg/kg	Elution by EN 16711-2 EN ISO 17075-2
Total heavy metals (in digested sample)			
Cadmium (Cd)	< 40 mg/kg	< 40 mg/kg	EPA 3050 B, ICP/MS, EN16711-1
Lead (Pb)	< 90 mg/kg	< 90 mg/kg	
Nickel release	< 0.5 µg/cm ² /week	< 0.5 µg/cm ² /week	EN 12472, EN 1811
Organotin compounds			
TBT	< 0.5 mg/kg	< 1.0 mg/kg	
TphT	< 0.5 mg/kg	< 1.0 mg/kg	
DBT	< 1.0 mg/kg	< 2.0 mg/kg	Extraction in solvent, ISO 17363 (GC/MS) or ISO/TS 16179 or ISO 22744-1:2020, Part 1 and Part 2
DOT	< 1.0 mg/kg	< 2.0 mg/kg	
MBT	< 1.0 mg/kg	< 2.0 mg/kg	

¹³This criterion is not applicable to inorganic / non-biological materials such as metals

PARAMETER	CRITERIA (limit values)		TEST METHOD
	Baby and personal care products	All other products	
DMT, DPT, MoT, MMT, MPHT, TeBT, TcYHT, TMT, TOT, TPT, DpHT, TeET	< 1.0 mg/kg	< 2.0 mg/kg	
Phthalates, sum parameter			
Such as DINP, DMEP, DNOP, DEHP, DIDP, BBP, DBP, DIBP, DEP, DIHP, DHNUP, DCHP, DHxP, DIHxP, DPPP, DHP, DNP, DPP, DMP	< 0.05%	< 0.05%	ISO 14389
Polycyclic Aromatic Hydrocarbons (PAH)			
Sum parameter	< 5.0 mg/kg	< 10.0 mg/kg	
1-Methylpyrene	< 0.5 mg/kg	< 1.0 mg/kg	
Acenaphthene	< 0.5 mg/kg	< 1.0 mg/kg	
Acenaphthylene	< 0.5 mg/kg	< 1.0 mg/kg	
Anthracene	< 0.5 mg/kg	< 1.0 mg/kg	
Benzo(e)pyrene	< 0.5 mg/kg	< 1.0 mg/kg	
Benzo(j)fluoranthene	< 0.5 mg/kg	< 1.0 mg/kg	
Benzo[a]anthracene	< 0.5 mg/kg	< 1.0 mg/kg	
Benzo[a]pyrene	< 0.5 mg/kg	< 1.0 mg/kg	
Benzo[b]fluoranthene	< 0.5 mg/kg	< 1.0 mg/kg	
Benzo[g,h,i]perylene	< 0.5 mg/kg	< 1.0 mg/kg	
Benzo[k]fluoranthene	< 0.5 mg/kg	< 1.0 mg/kg	AFPS GS 2019:01 PAK
Chrysene	< 0.5 mg/kg	< 1.0 mg/kg	
Cyclopenta (c,d)pyrene	< 0.5 mg/kg	< 1.0 mg/kg	
Dibenzo [a,e] pyrene	< 0.5 mg/kg	< 1.0 mg/kg	
Dibenzo [a,h] pyrene	< 0.5 mg/kg	< 1.0 mg/kg	
Dibenzo [a,i] pyrene	< 0.5 mg/kg	< 1.0 mg/kg	
Dibenzo [a,l] pyrene	< 0.5 mg/kg	< 1.0 mg/kg	
Dibenzo[a,h]anthracene	< 0.5 mg/kg	< 1.0 mg/kg	
Fluoranthene	< 0.5 mg/kg	< 1.0 mg/kg	
Fluorene	< 0.5 mg/kg	< 1.0 mg/kg	
Indeno[1,2,3-cd]pyrene	< 0.5 mg/kg	< 1.0 mg/kg	
Naphthalene	< 0.5 mg/kg	< 1.0 mg/kg	

PARAMETER	CRITERIA (limit values)		TEST METHOD
	Baby and personal care products	All other products	
Phenanthrene	< 0.5 mg/kg	< 1.0 mg/kg	
Pyrene	< 0.5 mg/kg	< 1.0 mg/kg	
Chlorinated paraffins, sum parameter			
Short Chain Chlorinated Paraffins (C ₁₀₋₁₃) & Medium Chain Chlorinated Paraffins (C ₁₄₋₁₇)	< 50 mg/kg	< 50 mg/kg	
Cyclic siloxanes			
D4	< 250 mg/kg	< 250 mg/kg	Extraction in solvent, GC/MS
D5, D6	< 1000 mg/kg	< 1000 mg/kg	
Other chemical residues			
Azodicarboxamide/ Azodicarbonamide/ Diazene-1,2-dicarboxamide (ADCA)	< 1000 mg/kg	< 1000 mg/kg	
Solvent residues			
NMP, DMAc, DMF	0.05% by weight	0.05% by weight	Extraction with methanol, GC-MS or dynamic headspace
Formamide	0.02% by weight	0.02% by weight	
Chlorinated benzenes & toluenes	1.0 mg/kg	1.0 mg/kg	DIN EN 17137
Nonylphenol ethoxylates	100 mg/kg	100 mg/kg	
Quinoline	< 20 mg/kg	< 20 mg/kg	DIN 54231:2005 with methanol extraction followed by LC/MS

Table 12: Limit Values for Chemical Residues in Additional Fibres and Accessories

Table - Additional Requirements for Accessories

FURTHER PARAMETERS FOR SPECIFIC MATERIALS USED IN ACCESSORIES	CRITERIA (limit values)	TEST METHOD
Polyester fibres		
Antimony (Sb)	< 30 mg/kg	EN 16711-2; ISO 17294-2 (ICP/MS)
Natural latex foam		
Butadiene	< 1.0 mg/kg	GC - FID
Chlorophenols (incl. salts and esters)	< 1.0 mg/kg	LFGB 82-02-08 (GC/MS)
Carbon disulphide	< 0.02 mg/m ³	Chamber test, DIN ISO 16000-6
Nitrosamines	< 0.001 mg/m ³	Chamber test; ZH 1/120-23 or BGI 505-23 for air sampling and analysis

Table 13: Additional Requirements for Accessories



GOTS - ចំណុចត្រួតពិនិត្យគីមី

- អ្នកដំណើរការទទួលបានលិខិតយល់ព្រម GOTS ដែលមានសុពលភាពនៅពេលធ្វើសវនកម្ម។
- បញ្ជីពេញលេញនៃសារធាតុគីមីត្រូវតែមាននៅពេលធ្វើសវនកម្ម
- ធាតុបញ្ចូលដែលបានប្រើទាំងអស់សម្រាប់ដំណើរការទំនិញ GOTS ត្រូវតែចុះបញ្ជីនៅលើលិខិតអនុញ្ញាតរបស់ GOTS ដែលចេញដោយ CB ក្នុងករណីដែលមិនមានលិខិតអនុញ្ញាតត្រូវតែពិនិត្យពីមូលដ្ឋានទិន្នន័យ GOTS ព័ត៌មានខាងក្រោម។
- <https://global-standard.org/find-suppliers-shops-and-inputs/approved-chemical-inputs>

តម្រូវការសាកល្បង

✓ ការធ្វើតេស្តគីមីទូទៅ

- ការបញ្ជូលគីមីទូទៅ (វិសាលភាព 4)
- គីមីជាក់លាក់ក្នុងដំណើរការដំណាក់កាលនីមួយៗ
- ប្រេងម៉ាស៊ីន - លោហៈធ្ងន់ដោយឥតគិតថ្លៃ

✓ ផលិតផលអ្នកប្រើប្រាស់

ចុងក្រោយ

- ជារមែត្រគុណភាពបច្ចេកទេស
- GOTS តម្លៃកំណត់ទំនិញសម្រាប់សំណល់
- GOTS តម្លៃកំណត់ទំនិញសម្រាប់ Fiber បន្ថែម

ការគ្រប់គ្រងបរិស្ថាន

- របាយការណ៍សាកល្បងទឹកសំណល់
- របាយការណ៍តេស្តបំពុលអាកាស
- របាយការណ៍តេស្តបំពុលសំឡេង
- របាយការណ៍បរិមាណឧស្ម័នផ្ទះកញ្ចក់



ការគ្រប់គ្រងបរិស្ថាន

អនុលោមភាព និង

- គោរពតាមលក្ខណៈវិនិច្ឆ័យការងាររបស់បរិស្ថានជាតិ/មូលដ្ឋាន។
- រក្សាគោលនយោបាយគ្រប់គ្រងបរិស្ថាន និងគីមីជាលាយលក្ខណ៍អក្សរ។
- ចែករំលែកគោលការណ៍ជាមួយនិយោជិតទាំងអស់។

ប្រព័ន្ធគ្រប់គ្រង:

- **បុគ្គលិកទទួលខុសត្រូវ:**ប្រគល់ភារកិច្ចសម្រាប់ការគ្រប់គ្រងបរិស្ថាន និងគីមី។
- **ទិន្នន័យធនធាន:**តាមដានការប្រើប្រាស់ថាមពល និងទឹកក្នុងមួយគីឡូក្រាមនៃវាយនភណ្ឌ។
- **គោលដៅ:**កំណត់គោលដៅកាត់បន្ថយការប្រើប្រាស់ថាមពល/ទឹក និងបង្កើនថាមពលកកើតឡើងវិញ។
- **ការគ្រប់គ្រងកាកសំណល់:**តាមដានកាកសំណល់ និងការហូរចេញក្នុងមួយគីឡូក្រាមនៃវាយនភណ្ឌ ដោយមានគោលដៅកាត់បន្ថយ។
- **នីតិវិធីនៃឧប្បត្តិហេតុ:**មានពិធីការសម្រាប់ឧប្បត្តិហេតុកាកសំណល់ និងការបំពុល។
- **ការបណ្តុះបណ្តាលបុគ្គលិក:**បណ្តុះបណ្តាលលើការអភិរក្សធនធាន ការគ្រប់គ្រងសារធាតុគីមី និងការចោលសំរាម។
- **គម្រោងកែលម្អ:** អនុវត្តគម្រោងកែលម្អរយៈពេលវែង និងរយៈពេលខ្លី។

ការគ្រប់គ្រងបរិស្ថាន

ការគ្រប់គ្រងគីមី និងកាកសំណល់៖

- រក្សាសារពើភ័ណ្ឌនៃសារធាតុគីមីដែលត្រូវបានអនុម័តដោយ GOTS ។
- រក្សាកំណត់ត្រានៃការប្រើប្រាស់គីមី ថាមពល និងទឹក; ការព្យាបាលទឹកសំណល់។
- វាស់ និងតាមដានទឹកសំណល់ កែច្នៃ/ចោលកាកសំណល់រឹងឱ្យបានត្រឹមត្រូវ។
- គ្មានការដុតកាកសំណល់នៅទីកន្លែង ឬកន្លែងចាក់សំរាមដែលមិនមានការត្រួតពិនិត្យទេ។

ការត្រួតពិនិត្យការបំពុល៖

- ត្រួតពិនិត្យស្ទង់រងរខាន និងការបំពុលខ្យល់តាមបទប្បញ្ញត្តិក្នុងស្រុក។
- អនុវត្តការធ្វើតេស្តតាមកាលកំណត់។

ការគ្រប់គ្រងឧស្ម័នផ្ទះកញ្ចក់ (GHG)៖

- កំណត់ តាមដាន កំណត់បរិមាណ និងកាត់បន្ថយការបំពុលឧស្ម័នផ្ទះកញ្ចក់។
- ប្រមូលទិន្នន័យដំបូងនៅលើប្រភព GHG និងកំណត់វិធីសាស្ត្រកាត់បន្ថយ។
- រួមបញ្ចូលការបំពុលផលិតផល និងសង្វាក់ផ្គត់ផ្គង់នៅក្នុងផែនការគ្រប់គ្រង GHG រយៈពេលវែង។



ការគ្រប់គ្រង ទឹកសំណល់

ការអនុលោម

- អនុលោមតាមលក្ខណៈវិនិច្ឆ័យជាតិ មូលដ្ឋាន និង GOTS (មួយណាដែលតឹងរឹងជាង)។

រោងចក្រព្យាបាលទឹកហូរ (ETP)៖

- ព្យាបាលទឹកសំណល់ពីអង្គភាពកែច្នៃសើមទាំងអស់មុននឹងបង្ហូរចេញ។
- ETP ត្រូវតែមានប្រសិទ្ធភាព ប្រតិបត្តិការ និងថែទាំ។

ការត្រួតពិនិត្យ និងការ

បណ្តុះបណ្តាល៖

- កត្តាគុណភាពទឹកសំណល់តាមកាលកំណត់នៅសមត្ថភាពធម្មតា។
- ផ្តល់ការបណ្តុះបណ្តាលប្រតិបត្តិការ និងថែទាំ ETP ដល់បុគ្គលិក។

ដែនកំណត់

បញ្ចេញ៖

- ការបញ្ចេញទឹកសំណល់៖ អតិបរមា 20 ក្រាម COD / គីឡូក្រាមនៃវាយនភណ្ឌកែច្នៃ (45 ក្រាម COD / គីឡូក្រាមសម្រាប់ដូតរោមចៀមដែលមានជាតិខាញ់)។

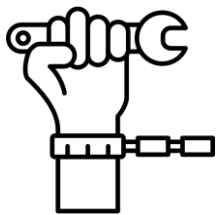
- ការជ្រាបទឹកនៃបាសសរសៃ៖ សម្រេចបានការកាត់បន្ថយ COD អតិបរមា 20 ក្រាម COD / គីឡូក្រាមសម្រាប់ hemp, 75%

pH និងដែនកំណត់សីតុណ្ហ

ភាព៖

- បញ្ចេញ pH: 6-9 (លុះត្រាតែទទួលទឹកនៅខាងក្រៅជួរនេះ)។
- សីតុណ្ហភាពបញ្ចេញ៖ តិចជាង 35°C (លុះត្រាតែទទួលបានទឹកលើសពីតម្លៃនេះ)។

លក្ខណៈវិនិច្ឆ័យសិទ្ធិមនុស្ស និងសង្គម



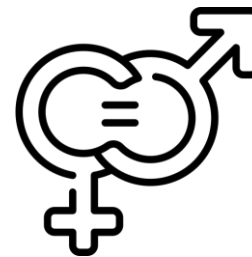
បង្ខំពលកម្ម



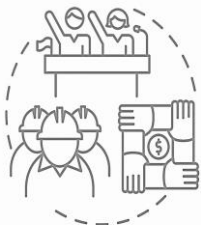
កូនពលកម្ម



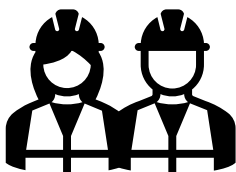
ការរើសអើង
ការបៀតបៀន
និងអំពើហិង្សា



សមភាពយេនឌ័រ



សេរីភាពនៃសមាគម
ការចរចាសមូហភាព



សុខភាពនិងសុវត្ថិភាព



ការវាយតម្លៃប្រាក់
ឈ្នួលរស់នៅ



ម៉ោងធ្វើការ



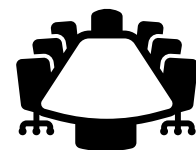
ការងារមិនច្បាស់លាស់



ពលករចំណាកស្រុក



បុគ្គលិកផ្ទះ



ការគ្រប់គ្រងការ
អនុលោមតាម
សង្គម

លក្ខណៈវិនិច្ឆ័យអភិបាលកិច្ច

គោល

- ការធានាឱ្យកិរិយាប្រកបដោយសីលធម៌គឺចាំបាច់នៅទូទាំងសង្វាក់ផ្គត់ផ្គង់។
- បង្កើតទំនុកចិត្តក្នុងចំណោមភាគីពាក់ព័ន្ធ (កម្មករ ដៃគូ អតិថិជន អ្នកបញ្ជាក់)។

ក្រមសីលធម៌ (CoC)៖

- ត្រូវកណ្តតគោលការណ៍សលធម៌ ភាពស្មោះត្រង់ និងការដោះស្រាយដោយយុត្តិធម៌។
- ទប់ស្កាត់អំពើពុករលួយ និងសីសំណុក។

ការប្រកាន់ខ្ជាប់ និងតម្លាភាព

- អនុវត្តតាមគោលការណ៍ណែនាំរបស់ OECD ។
- ជៀសវាងអំពើពុករលួយ ការជំរិតទារប្រាក់ ការកេងបន្លំ និងសំណុក។
- រក្សាព័ត៌មានត្រឹមត្រូវ និងបង្ហាញតាមបទប្បញ្ញត្តិ។
- ជៀសវាងការក្លែងបន្លំ និងការបកស្រាយខុស។

ការគ្រប់គ្រង

- ទិន្នន័យព័ត៌មានផ្ទាល់ខ្លួនដោយយកចិត្តទុកដាក់ និងស្របតាមច្បាប់ឯកជនភាព។
- បង្កើតយន្តការផ្គត់ផ្គង់ ដើម្បីរាយការណ៍អំពីអំពើពុករលួយ ឬការមិនគោរពតាម។

ការបណ្តុះបណ្តាល និងការ

យល់ដឹង៖ បណ្តុះបណ្តាលបុគ្គលិកលើបទប្បញ្ញត្តិសុចរិតភាព និងការដាក់ទណ្ឌកម្មចំពោះការមិនគោរពតាម។

1. GOTS Scopes

- 1a. GOTS Scopes
- 1b. GOTS labeling Grade

2. Traceability

- 2a. Record keeping, Internal Quality.
- 2b. Segregation, Storage, Packaging and Transport.

3. Material Requirements

4. Environment, Social and Governance Criteria

- 4a. Management Process
- 4b. Chemical Input
- 4c. Environmental Criteria
- 4d. Human Rights and Social Criteria
- 4e. Governance Criteria

5. Product Technical Quality Criteria

- 5a. Technical Quality Parameters
- 5b. Residue's limit value (Chemical)
- 5c. Accessories and additional fiber limit value

6. Special requirements for special products

- 6a. Textile Personal Care Products
- 6b. Food Contact Textiles

GLOBAL ORGANIC TEXTILE STANDARD (GOTS)

VERSION 7.0

March 2023

Effective Date: 1 March 2024

Global Standard gemeinnützige GmbH
Rotebühlstr. 102 · 70178 Stuttgart · Germany

www.global-standard.org



តម្រូវការពិសេសសម្រាប់ផលិតផលពិសេស

១៥ ក្រុម
 ១៥ ក្រុម

ជាតិសរសៃសមាសធាតុសម្ភារៈ៖

- ទាញយកសរសៃសមាសធាតុសម្ភារៈ (ICF)
- មិនត្រូវមានស្រូបយកត្រូវតែជាសរសៃ 100%
- សំយោគជាតិសរសៃ សមាសធាតុគីមីមិនត្រូវបានអនុញ្ញាតសម្រាប់ផលិតផលក្រុម II ។ លុះត្រាតែជួប 6.1.2.1

Super Absorbing Polymers (SAPs)៖

- សម្រាប់ស្រូបយកសរសៃសមាសធាតុសម្ភារៈ GMIU បេតូលែន កើតឡើងវិញ។
- អតិបរមា 5% ដោយទម្ងន់នៃសារធាតុចម្រាញ់ដែលរលាយក្នុងទឹក។

ខ្សែភាពយន្ត សម្រាប់ទំនាក់ទំនងមុខរបួស ខ្សែភាពយន្តបាំងត្រូវមានសមាសភាពប្លូលីមែរដែលអាចបំបែកបាន.

- វត្ថុធាតុដើមទាំងអស់ដែលបានប្រើមិនមែនជា GMO

លក្ខណៈវិនិច្ឆ័យជាក់លាក់

- សម្រាប់ Tampons ឬក្រដាសស្រូបយកសរសៃសមាសធាតុសម្ភារៈ ក្រដាសជូតមាត់ ដែលត្រូវបានអនុញ្ញាត។ សម្ភារៈបន្ថែមត្រូវអនុវត្តតាម 5.2.8
- សំយោគរាំងននសុវត្ថិភាពមិនត្រូវបានអនុញ្ញាត.

6.1 ផលិតផលថែរក្សាផ្ទាល់ខ្លួនវាយនភ័ណ្ឌ

GROUP I	Topical Products	Cottonwool, sanitary towels, bandages, nappies, gauze cotton tissue (Gamgee), island dressings, wound strips, sticking plasters, gauze dressinas etc.
GROUP II	Physically Invasive Products	Tampons, cotton buds, dental roll etc.
	Clinically Invasive Products	Surgical swabs, gauze swabs etc.

Table 14: Grouping of Textile Personal Care Products

- ផលិតផលក្រុម II៖ ត្រូវប្រើ។
- សារធាតុពាណៈ៖
 - អនុវត្តតាមបទប្បញ្ញត្តិច្បាប់
 - ត្រូវតែត្រូវបានអនុម័តដោយ GOTS ។
- ភ្នាក់ងារបំភ្លឺអុបទិក៖
 - ភ្នាក់ងារបំភ្លឺអុបទិកមិនត្រូវប្រើ.
- ទឹកអប់ ឡេ និងប្រេងរំអិល៖
 - អនុលោមតាមលក្ខណៈវិនិច្ឆ័យបញ្ចូលរបស់ GOTS
 - អនុលោមតាមលក្ខណៈវិនិច្ឆ័យនៃស្តង់ដារ COSMOS ។ (គ្រឿងសំអាងធម្មជាតិ និងស្តង់ដារ)

តម្រូវការពិសេសសម្រាប់ផលិតផលពិសេស

6.2 វាយនភ័ណ្ឌទំនាក់ទំនងអាហារ

ចំណាំសំខាន់៖

- អង្គភាពណាមួយដែលលក់ FCTs ត្រូវដឹង និងបំពេញតាមតម្រូវការច្បាប់ជាក់លាក់ (អនាម័យ និង GMP) ដែលអនុវត្តសម្រាប់ផលិតផលរបស់ខ្លួន និងនៅក្នុងប្រទេស/តំបន់ដែលពួកគេត្រូវបានលក់។
- តម្រូវការផ្លូវច្បាប់មួយចំនួនសម្រាប់ FCTs ជាក់លាក់មានដើម្បីជាមួយនឹងលក្ខណៈវិនិច្ឆ័យបរិស្ថានដែលកំណត់ដោយ GOTS ។ អាស្រ័យហេតុនេះ លើកលែងតែកន្លែងដែលបានបញ្ជាក់ខាងក្រោម ផលិតផលទាំងនេះមិនអាចត្រូវបានបញ្ជាក់ និងដាក់ស្លាកទៅ GOTS ទេ។

សម្ភារៈជាក់លាក់ និងលក្ខណៈវិនិច្ឆ័យ

យបព្រល

- វាយនភ័ណ្ឌទាំងអស់ត្រូវប្រើ **គ្មានជាតិក្លរិនទាំងស្រុង** (TCF) ។
- FCTs ត្រូវតែមាន 100% សរីរាង្គដែលបានបញ្ជាក់សរសៃ.
- **ការបោះពុម្ពត្រូវបានហាមឃាត់** នៅលើផ្ទៃកន្លែងទំនាក់ទំនងអាហារនៃវាយនភ័ណ្ឌ។ ជាពិសេស GMP គួរតែធានាថា សារធាតុគីមីមិនត្រូវបានផ្ទេរតាមរយៈស្រទាប់ខាងក្រោមឡើយ។



ស្នូមអរគុណ



GOTS 7.0 Training

Tom Dao – 25 July 2024



Reference Document

Global Organic Textile Standard (GOTS) Version 7.0

Effective Date: 1 March 2024

Link: https://global-standard.org/images/resource-library/documents/standard-and-manual/GOTS_7.0__SIGNED_.pdf

MANUAL FOR THE IMPLEMENTATION OF GOTS Version 7.0

Effective Date: 1 March 2024

Link: https://global-standard.org/images/resource-library/documents/standard-and-manual/Manual_for_the_Implementation_of_GOTS_V7.0__SIGNED_.pdf

APPROVAL OF CHEMICALS AND ACCESSORIES

Link: <https://global-standard.org/the-standard/approval-of-chemicals-and-accessories>

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GLOBAL ORGANIC TEXTILE STANDARD (GOTS)

VERSION 7.0

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Scope of GOTS

Scope 1:

Certification of mechanical textile processing and manufacturing operations and their products.

Scope 2:

Certification of wet processing and finishing operations and their products

Scope 3:

Certification of trading operations and related products

Scope 4:

Approval of textile auxiliary agents (chemical inputs) on positive lists

This Standard covers the 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, garments, fashion textile accessories (carried or worn), textile toys, home textiles, mattresses and bedding products as well as textile personal care products

GOTS Label Grade and Labeling

Only 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:

Organic or Organic In-conversion No less than 95% ($\geq 95\%$) of the fibre content of the products - excluding accessories	Made with (x %) organic material or Made with (x %) organic in-conversion materials No less than 70% ($\geq 70\%$) of the fibre content of the products - excluding accessories
--	---



Requirements of Organic Material Production

Natural fibres that are certified 'organic' or 'organic - in conversion' according to any standard approved in the IFOAM Family of Standards for the relevant scope of production (crop or animal production), such as Regulation (EC) 834/2007, USDA National Organic Program (NOP), APEDA's National Programme for Organic Production (NPOP), China Organic Standard GB/ T19630.

The certification body shall have a valid and recognized accreditation for the standard it certifies against. Recognized accreditations are ISO 17065 accreditation, NOP accreditation and IFOAM accreditation.

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- 1b. GOTS labeling Grade

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- 4a. Management Process
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- 4c. Environmental Criteria
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- 4e. Governance Criteria

5. Product Technical Quality Criteria

- 5a. Technical Quality Parameters
- 5b. Residue's limit value (Chemical)
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6. Special requirements for special products

- 6a. Textile Personal Care Products
- 6b. Food Contact Textiles

GLOBAL ORGANIC TEXTILE STANDARD (GOTS)

VERSION 7.0

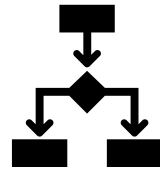
March 2023

Effective Date: 1 March 2024

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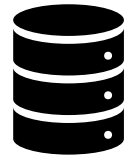
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Record Keeping, Internal Quality Assurance

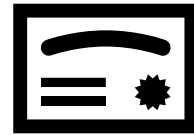


Operational procedure to trace:

- Origin, nature, and quantities of materials and inputs
- Flow of goods within the unit
- Nature, quantities, and consignees of GOTS Goods leaving the unit
- Fibre composition of manufactured products



Keep record
5 years



Scope Certificate and
Transaction certificates



Invoices, delivery notes
Letters of Approval



Check and verify origin
upon receipt



Identify organic fibers
With invoices



Contract with subcontractors
to compliance with GOTS criteria



Collect, collate, and share non-commercial information related to impact measurement if and as required by GOTS.

Segregation, Storage, Packaging and Transport

B2B Trade of GOTS Goods

- Stored and transported to prevent contamination, commingling or substitution.
- Segregate organic fibers from conventional fiber.
- Clearly label all GOTS materials, goods throughout the supply chain.
- Transportation and shipping document.
- Pesticides and biocides must comply with organic standard.
- **PVC is not allowed** for packing. Minimize plastic use for packing.

B2C Trade of GOTS Goods

- Final GOTS Goods could store, transport together with conventional products when have GOTS labelling.
- Single use of **plastic hanger is prohibited** in GOTS Goods. Recycled plastic is allowed.
- **PVC is not allowed** in packing. Minimize plastic use for packing.
- Paper/cardboard **packaging must be recycled** or certified for **sustainable forestry** (Ex: FSC CoC).
- Textile fibers for packaging or **hangtag strings must be:**
 - Certified organic - Section 5.2.7
 - Certified organic in-conversion - 5.2.7
 - Accepted additional fibers – 5.2.8

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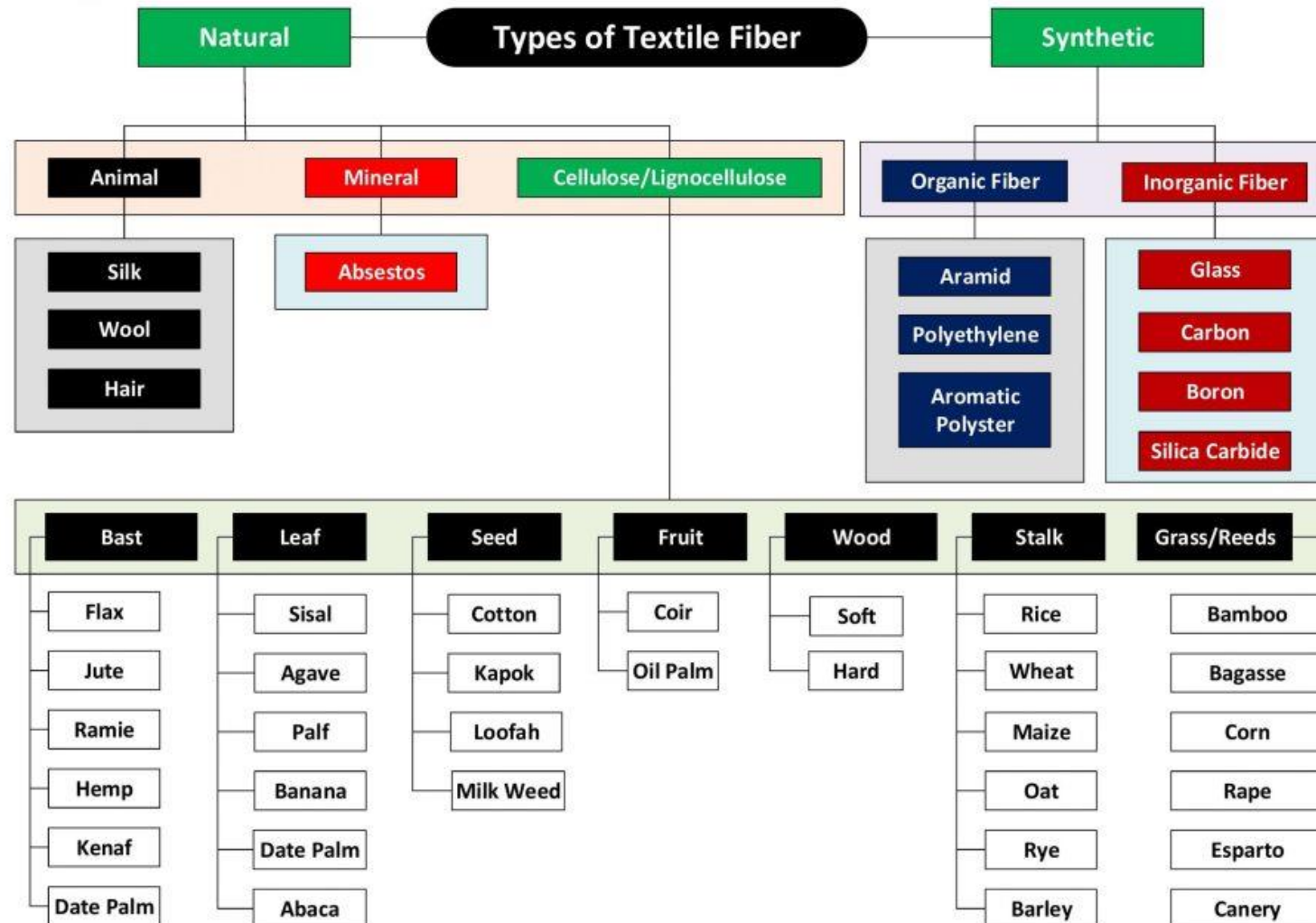
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Classification of Textile Fibres



Find more on textile fibres; <http://gpktt.weebly.com/classification-of-textile-fibers.html>

Additional Fibre Materials Requirement

For GOTS Goods sold, labelled, or represented as "made with (x%) organic materials" or "made with (x%) Organic in-conversion materials, **up to 30%** ($\leq 30\%$) of the product fibre composition may be consist of “**Additional Fibre Materials**”.

Natural vegetable or animal fibres, regenerated fibres, other:

1. Non-GMO conventional, virgin or recycled natural vegetable fibres
2. Non-GMO conventional, virgin or recycled animal fibres
3. Organic, mechanically recycled natural vegetable or animal fibres derived from Pre-consumer Waste of GOTS Goods (intermediate or finished)
4. Lyocell or protein-based regenerated fibres derived from non-GMO sources and certified organic raw materials or pre- or post-consumer waste or from raw materials certified according to a programme that verifies compliance with sustainable forestry management principles
5. PLA (polylactic acid) fibre produced from non-GMO bio-mass sources

✓ **ALLOWED**

*Individually or in combination as a sum total **up to 30%** ($\leq 30\%$)*

Additional Fibre Materials Requirement

For GOTS Goods sold, labelled, or represented as "made with (x%) organic materials" or "made with (x%) Organic in-conversion materials, up to 30% ($\leq 30\%$) of the product fibre composition may be consist of "Additional Fibre Materials".

Recycled synthetic (polymer) fibres:

1. Derived from pre- or post-consumer waste: only polyester, polyamide, polypropylene, elastomultiester (elasterell-p) and polyurethane (elastane)

✓ ALLOWED

Individually or in combination as a sum total up to 20% ($\leq 20\%$)

Regenerated fibres, virgin synthetic (polymer) fibres, other:

1. Regenerated fibres like lyocell, viscose or modal: raw materials used shall be non-GMO
2. Virgin synthetic (polymer) fibres: only polyamide, polypropylene, elastomultiester (elasterell-p) and polyurethane (elastane)
3. Stainless steel fibres and mineral fibres

✓ ALLOWED

Individually or in combination as a sum total up to 10% ($\leq 10\%$)

Additional Fibre Materials Requirement

For GOTS Goods sold, labelled, or represented as "made with (x%) organic materials" or "made with (x%) Organic in-conversion materials, up to 30% ($\leq 30\%$) of the product fibre composition may be consist of "Additional Fibre Materials".

REQUIREMENTS FOR ADDITIONAL FIBRE TYPES	CRITERIA
Prohibited fibre types (miscellaneous):	
1. Conventional cotton (virgin, recycled, non-GMO)	X PROHIBITED
2. Conventional angora hair fibre	
3. Virgin polyester	
4. Acrylic	
5. Asbestos, carbon and silver fibres	
6. Mulesed wool	
7. Any other not explicitly permitted fibres	

Table 1: Allowed and Prohibited Additional Fibres

Allowed and Prohibited Accessories

Material in general (valid for appliqué, borders, buckles, buttons and press -studs, cords, edgings, elastic bands and yarns, embroidery yarns, fasteners and closing systems, adhesive tapes used for fusing, hatbands, lace used as decoration, linings, inlays, interface, labels (heat-transfer/ adhesive/ care/ GOTS), interlinings, pocket liners, seam bindings, sewing threads, shoulder pads, padding for undergarments, trims, zippers, soles in footwear and any other not explicitly listed Accessories)

1. Natural Materials include biogenic⁴ material (such as (organic or conventional) natural fibre, wood, leather, horn, bone, shell) and non-biotic material (such as minerals, metals, stone) ✓ ALLOWED

2. Regenerated or synthetic material

1. Asbestos X PROHIBITED

2. Carbon fibres

3. Silver (filament, treated) fibres

4. Chromium (e.g. as a component of metal or in leather tanning, except that stainless steel is permitted)

5. Nickel (e.g. as a component of metal, except that stainless steel is permitted)

6. Material from threatened animals, plants and timber

7. Chlorinated plastics (e.g. PVC)

Allowed and Prohibited Accessories

Filling, stuffing

- **For textile fibre use** (textile fibres used as fillings are not considered as Accessories)

1. Textile fibre materials certified to organic or Organic in-conversion	✓ ALLOWED
--	-----------

- **For non-textile material use**

2. Only Natural Materials are permitted and shall be from certified organic or Organic in-conversion production in case such certification is applicable for the kind of material used (e.g. for plant-based materials such as grain spelt or animal based-materials such as feathers).	✓ ALLOWED
---	-----------

- **For latex foam use** (for filling or stuffing)

3. Latex foam made from certified organic or Organic in-conversion latex or from latex certified according to a program that verifies compliance with sustainable forestry management principles.	✓ ALLOWED
---	-----------

Support and frame

! The requirements as specified in the row 'material in general' apply.

1. Latex foam used in mattresses shall be made from certified organic or Organic in-conversion latex or from latex certified according to a program that verifies compliance with sustainable forestry management principles.	✓ ALLOWED
2. Polyurethane foams are not permitted in mattresses or other textile bedding products.	X PROHIBITED

Non-slip floor covering

- **Natural backing materials:** ✓ ALLOWED

1. Natural backing materials shall satisfy requirements in Sections 4.2.2 and 4.2.3.
2. Latex shall be made from certified organic or Organic in-conversion latex or from latex certified according to a program that verifies compliance with sustainable forestry management principles.
3. Natural inorganic materials (such as dolomite) may be used in conjunction with this backing material and shall satisfy Sections 4.2.2 and 4.2.3.

- **Synthetic backing materials** X PROHIBITED

Cotton bud sticks

1. Natural Materials ✓ ALLOWED

Table 2: Allowed and Prohibited Accessories

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Due Diligence Management Process

Due Diligence Process:

- **Embed** due diligence in policies and management systems.
- **Identify** actual or potential adverse impacts.
- **Cease, prevent, or mitigate** adverse impacts.
- **Track** implementation and results.
- **Communicate** how impacts are addressed.
- **Enable** remediation when appropriate.

Requirements:

- Applies to all GOTS Certified Entities, considering size, context, and structure.
- Continuous implementation and progressive improvement.
- Adopt a Policy on Responsible Business Conduct.
- Strengthen management systems for due diligence.
- Assign senior management and board-level responsibilities for oversight.
- Provide training and allocate resources for due diligence processes.

Chemical Management

Chemical Usage:

- Only use chemicals on the GOTS Positive List.
- Valid Letters of Approval for GOTS chemicals
- Safety Data Sheets For all chemicals

Chemical Assessment:

- **Pre-Approval:** All chemical inputs must be assessed before purchase.
- **Approval:** Chemical formulator must apply for approval by GOTS scope 4 approved CB.
- **SDS** must prepared according to allowed format. Ex: Global Harmonized System (GHS)
- **GOTS Positive List:** All chemical inputs and their trade names are listed on the GOTS Positive List on the GOTS website.



FIND SUPPLIERS, SHOPS AND INPUTS

- ▶ CERTIFIED SUPPLIERS
- ▶ SHOP-FINDER

Register your shop

▶ **APPROVED CHEMICAL INPUTS**

APPROVED CHEMICAL INPUTS

Free Text (e.g. trade name, name of company)

Type / Utilisation ↓

Country ↓

GOTS Version ↓

SEARCH RESULTS

Testing Requirement

General Chemical Testing

- General Chemical Input (Scope 4)
- Specific Chemical in Processing Each Stages
- Machine Oil – Heavy Metal Free

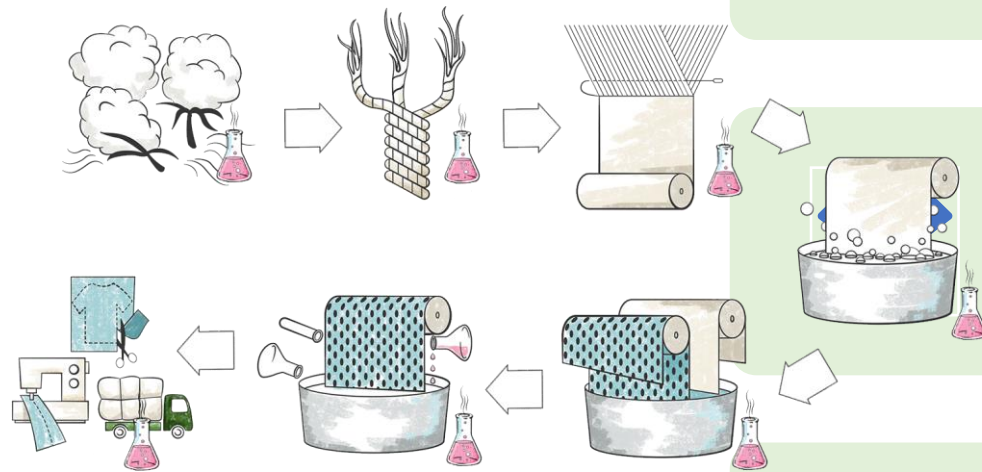
Final Consumer Product

- Technical Quality Parameter
- GOTS Goods limit value for Residue
- GOTS Goods limit value for Additional Fiber

Environment Test Report

- Wastewater test report
- Noise pollution test report
- Air pollution test report
- Greenhouse Gas quantifying report

Chemical Input



Input is the **general term** used for all the substances and preparations directly applied as textile **auxiliary, dyes, pigments** in the textile wet processing

Use of inputs in **Textile Wet Processing**



General **requirements for chemical inputs** in all processing stages for textile as **per GOTS standard 4.2.2**(Prohibited and Restricted Inputs) and **4.2.3**(Requirements Related to Hazard and Toxicity)

Chemical Input

Table - Prohibited and Restricted Chemicals

SUBSTANCE GROUP	CRITERIA	SUBSTANCE GROUP	CRITERIA	SUBSTANCE GROUP	CRITERIA
Aromatic and/or halogenated solvents	× PROHIBITED	Heavy metals		Cyclic siloxanes (D4, D5, D6)	
Flame retardants		1. Inputs that are not 'Heavy Metal Free'	× PROHIBITED	1. D4: above the classification limit of 0.025% (250 mg/kg)	× PROHIBITED
1. Chlorinated flame retardants	× PROHIBITED	2. Impurities shall not exceed the limit values as defined in Section 7		2. D5, D6: Inputs that contain ≥1000 mg/kg	
2. Brominated flame retardants		3. Dyes and pigments	I RESTRICTED Exceptions are set in sections 4.2.6.6. and 4.2.6.7.	Substances and Preparations that are prohibited for application in textiles with an internationally recognised or a nationally valid legal character	× PROHIBITED
3. Phosphate based flame retardants, listed in the Implementation Manual		Inputs (e.g. azo dyes and pigments) which release arylamines with carcinogenic properties (MAK III, category 1,2,3) and Aniline, free, (category 4)	× PROHIBITED	Substances and Preparations having restrictions in usage for application in textiles with an internationally recognised or a nationally valid legal character	<i>The same restrictions apply, provided the Substances and Preparations are not already prohibited or have stricter restrictions criteria according to this Standard.</i>
4. Flame retardants containing antimony or antimony trioxide		Inputs containing functional nanoparticles (= particles with a size < 100 nm)	× PROHIBITED	Substances and Preparations listed in regulation EC 552/2009 (amending regulation EC 1907/2006 (REACH), annex XVII), and the 'candidate list of Substances of very high concern (SVHC) for authorisation' of the European Chemicals Agency (ECHA) are prohibited.	× PROHIBITED
5. Disodium octaborate		Inputs with halogen containing compounds		Microplastics	
Chlorinated benzenes and toluenes	× PROHIBITED	1. Inputs that contain > 1% Permanent AOX	× PROHIBITED	1. Intentionally added synthetic Microplastics	× PROHIBITED
1. Such as mono, di, tri, tetra and penta- chlorophenols		2. Certain pigments (for printing)	I RESTRICTED Exceptions are set in section 4.2.6.7.	In-can preservatives in chemical inputs	
Chlorophenols (including their salts and esters)	× PROHIBITED	Organotin compounds		1. In-can preservatives which do not meet the requirements of Sections 4.2.2 and 4.2.3	× PROHIBITED
Complexing agents and surfactants		1. Such as DBT, DMT, DOT, DPhT, DPT, MBT, MMT, MOT, MPhT, TBT, TCyHT, TeBT, TeET, TMT, TOT, TPhT, TPT	× PROHIBITED	2. Biocidal active Substance(s) that comply with European biocidal products regulation (BPR 528/2012) and are listed on the Union list of BPR for product type PT06 (preservatives for products during storage), which are accessible here are exceptionally allowed.	I EXCEPTION
1. All APs and APEOs (i.e. NP, OP, NPEO, OPEO, APEOs terminated with functional groups, APEO-polymers)	× PROHIBITED	Plasticizers		https://echa.europa.eu/en/information-on-chemicals/biocidal-active-substances	
2. EDTA, DTPA, NTA		1. PAH, phthalates and esters of phthalic acid, bisphenol A and all other plasticisers with endocrine disrupting potential	× PROHIBITED	Quinoline	× PROHIBITED
3. LAS, α-MES		Per- and polyfluoroalkyl Substances (PFAS)			
Endocrine Disruptors	× PROHIBITED	1. All PFAS compounds including PFCA (incl. PFOA), PFSA (incl. PFOS) FTOH, PFNA, PFHpA, PFDA, PFOSA, PTFE	× PROHIBITED		
Formaldehyde and other short-chain aldehydes		Quaternary ammonium compounds			
1. Inputs that contain or generate formaldehyde or other short-chain aldehydes (like glyoxal) during designated application	× PROHIBITED	1. DTDMAC, DSDMAC and DHTDMAC	× PROHIBITED		
Glycol derivatives		2. Chlorinated paraffins	× PROHIBITED		
1. All glycol derivatives listed in the Implementation Manual	× PROHIBITED	3. Short-chain chlorinated paraffins (SCCPs, C ₁₀₋₁₃)			
Genetically modified organisms (GMO)		4. Medium-chain chlorinated paraffins (MCCPs, C ₁₄₋₁₇)			
All inputs that:	× PROHIBITED				
1. Contain GMO					
2. Contain enzymes derived from GMO					
3. Are made from GMO raw materials (e.g., starch, surfactants or oils from GM plants)					
4. Contain GMO based traceability markers					

Table 3: Prohibited and Restricted Chemicals

Chemical Input

SUBSTANCE GROUP	CRITERIA
Inputs which are classified with specific hazard statements (risk phrases) related to health hazards	
<ol style="list-style-type: none"> Substances which are classified with any of the following hazard statements/risk phrases, if applied as direct Input Preparations which are classified with any of the following hazard statements/risk phrases Preparations which contain at least one Substance which is classified with any of the following hazard statements <p>In accordance with the codification system of the Globally Harmonized System of Classification (GHS) as published by the United Nations, annex 3:</p> <ul style="list-style-type: none"> H300 Fatal if swallowed H310 Fatal in contact with skin H330 Fatal if inhaled H340 May cause genetic defects H341 Suspected of causing genetic defects H350 May cause cancer H351 Suspected of causing cancer H360 May damage fertility or the unborn child H361 Suspected of damaging fertility or the unborn child H370 Causes damage to organs H371 May cause damage to organs H372 Causes damage to organs through prolonged or repeated exposure <p><i>For Inputs assessed on the basis of GHS, where the implementation system does not provide for the codified H-statements, the corresponding hazard classes and categories of GHS, annex 3, apply. For Inputs assessed according to the 'risk phrase' classification (Directive 67/548EEC amended and appealed by Regulation EC 1272/2008), the equivalent risk phrases apply.</i></p>	× PROHIBITED

Inputs which are classified with specific hazard statements/risk phrases related to environmental hazards	
<ol style="list-style-type: none"> Substances which are classified with any of the following hazard statements/risk phrases, if applied as direct Input Preparations which are classified with any of the following hazard statements/risk phrases <p>In accordance with the codification system of the Globally Harmonized System of Classification (GHS) as published by the United Nations, annex 3:</p> <ul style="list-style-type: none"> H400 Very toxic to aquatic life H410 Very toxic to aquatic life with long-lasting effects H411 Toxic to aquatic life with long-lasting effects H420 Harms public health and the environment by destroying ozone in the upper atmosphere H433 Harmful to terrestrial vertebrates 	× PROHIBITED

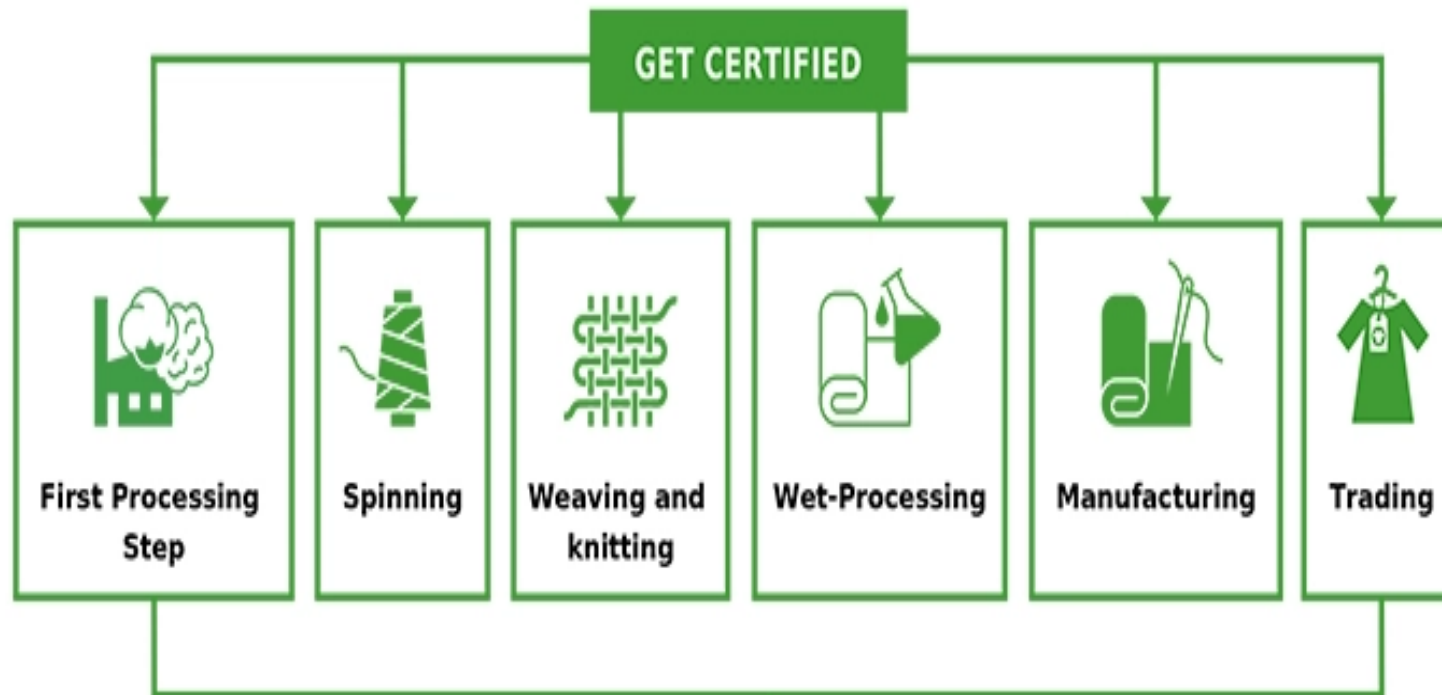
SUBSTANCE GROUP	CRITERIA
Inputs which are bio-accumulative and not rapidly degradable	
<ol style="list-style-type: none"> Substances, if applied as direct Input, and Preparations classified with H413: 'May cause long-lasting harmful effects to aquatic life' that are both 'bio-accumulative'⁵ and not 'rapidly degradable'^{6 7} 	× PROHIBITED

Table 4: Hazards Restrictions in Chemical Inputs

All preparations applied shall further comply with the following requirements:

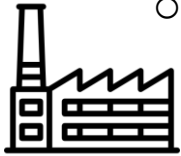
PARAMETER	CRITERIA
Oral Toxicity⁸	I RESTRICTED LD ₅₀ > 2000 mg/kg ⁹
Aquatic Toxicity¹⁰	I RESTRICTED LC ₅₀ , EC ₅₀ , IC ₅₀ > 1 mg/l
Relation of Biodegradability / Eliminability¹¹ to Aquatic Toxicity¹⁰	I RESTRICTED Only allowed, if: < 70% and > 100 mg/l > 70% and > 10 mg/l > 95% and > 1 mg/l

Textile Processing Stages



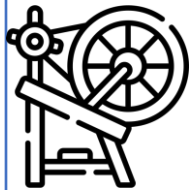
Textile Processing Criteria

First Processing



- Organic cotton fibres: Require pesticide **residue and GMO tests** before acceptance into GOTS certified supply chain.

Spinning



- Additives must meet **Sections 4.2.2 and 4.2.3 requirements**.
- Paraffin products: Must be fully refined with **≤0.5% residual oil**.
- Prohibition on **synthetic fibres** to be dissolved later.

Sizing, Weaving, Knitting



- Allowed: Starch, starch derivatives, natural substances, CMC.
- **Synthetic sizes: Max 25%** of total sizing, must meet Sections 4.2.2 and 4.2.3.
- Recycled synthetic sizes (>80% recovery): No limit if they meet Sections 4.2.2 and 4.2.3.
- Other inputs: Must be derived from natural materials.

Non-woven Manufacture



- Allowed processes: Mechanical compaction, webbing, and hydroentanglement.

Pre-treatment and Wet Processing Stages

Table - Pre-treatment and Other Wet Processing Stages

TREATMENT / PROCESS	CRITERIA
Ammonia treatment	✗ PROHIBITED
1. Ammonia treatment is allowed if performed in a closed system with a minimum of 99% recycling rate	! EXCEPTION
Bleaching	
1. Inputs that are oxygen-based only (peroxides, ozone, etc.)	✓ ALLOWED
2. Catalysers which contain manganese may be used provided that ETAD's manganese residue limit (1000 mg/kg, see Section 7) is met.	! EXCEPTIONS
3. Approved Certifiers may grant exceptions for non-cotton fibre products where oxygen bleaches are not sufficiently functional, provided they meet the basic requirements as set in Section 4.2.2 and 4.2.3	
Boiling, kiering, washing	
4. Only auxiliaries that meet the basic requirements set in Sections 4.2.2 and 4.2.3	✓ ALLOWED
5. Washing detergents shall not include phosphates	! RESTRICTED

TREATMENT / PROCESS	CRITERIA
Chlorination of wools	✗ PROHIBITED
Desizing	
1. Only GMO-free enzymatic desizing Inputs and other auxiliaries that meet the basic requirements set in Sections 4.2.2 and 4.2.3	✓ ALLOWED
Mechanical/thermal treatments	✓ ALLOWED
Mercerisation	
1. Auxiliaries that meet the basic requirements as set in Section 4.2.2 and 4.2.3 only.	✓ ALLOWED: Alkali shall be recycled
2. Ammonia may be allowed and used for mercerisation of cotton only if performed in a closed-loop system and only if a minimum of 99% of the ammonia is recycled in such a system	! EXCEPTION
Optical brightening	
1. Optical brightening agents (OBAs) that meet all criteria for the selection of dyes, pigments, inks and auxiliaries as set in Section 4.2.6.6.	✓ ALLOWED
Other (not explicitly listed pre-treatment methods)	
1. Mechanical/thermal pre-treatment methods and such with the use of Substances based on Natural Materials	✓ ALLOWED

Table 6: Restrictions in Pre-treatment and Wet Processing

Dyeing And Printing

PARAMETER	CRITERIA
Selection of dyes, pigments and auxiliaries	
1. Natural and synthetic dyes, pigments, and auxiliaries that meet the requirements as set in Sections 4.2.2 and 4.2.3 only	✓ ALLOWED
2. Dyes (disperse) classified as allergenic	✗ PROHIBITED
3. Colourants classified or suspected as carcinogenic (H350/H351)	✗ PROHIBITED
4. Dyes and pigments containing heavy metals as integral part of the dye molecule (e.g. heavy metal dyes, certain reactive dyes), under the consideration of following exceptions:	✗ PROHIBITED
a. Iron	I EXCEPTION: General exception
b. Copper	I EXCEPTION: Specific exception <i>Permitted up to 5% per weight, for only blue, green and turquoise dyestuffs and pigments</i>
5. Inputs containing >1% Permanent AOX	✗ PROHIBITED
a. Only for yellow, green and violet pigments	I EXCEPTION: <i>Up to 5% Permanent AOX is permitted</i>
6. The use of natural dyes and auxiliaries that are derived from threatened species listed on the Red List of the IUCN	✗ PROHIBITED
7. Sensitising (H317) chemicals such as disperse dyes shall not be used, handled or manufactured unless proper and sufficient Occupational Health and Safety practices are adhered to as in Section 4.4.7 at Certified Entities and Chemical Formulators (see 4.2.5).	I RESTRICTED

Table 7: Restrictions in Dyeing

PARAMETER	CRITERIA
Selection of dyes, pigments and auxiliaries	
1. Natural and synthetic dyes, pigments, and auxiliaries that meet the requirements as set in Sections 4.2.2 and 4.2.3 only	✓ ALLOWED
2. Ammonia only as a required buffer in pigment printing paste	✓ ALLOWED
3. Flock printing is allowed with non-GMO natural and regenerated fibres that comply with Section 5.2.8	✓ ALLOWED
4. Dyes (disperse) classified as allergenic	✗ PROHIBITED
5. Colourants classified or suspected as carcinogenic (H350/H351)	✗ PROHIBITED
6. Dyes and pigments containing heavy metals as integral part of the dye molecule (e.g. heavy metal dyes, certain reactive dyes), under the consideration of following exceptions:	✗ PROHIBITED
a. Iron	I RESTRICTED: General exception
b. Copper	I RESTRICTED: Specific exception <i>Permitted up to 5% per weight, for only blue, green and turquoise dyestuffs and pigments</i>
7. Printing methods using aromatic solvents, phthalates or chlorinated plastics (e.g. PVC)	✗ PROHIBITED
8. Inputs containing >1% Permanent AOX	✗ PROHIBITED
a. Only for yellow, green and violet pigments	I EXCEPTION: <i>Up to 5% Permanent AOX is permitted</i>
9. The use of natural dyes and auxiliaries that are derived from threatened species listed on the Red List of the IUCN	✗ PROHIBITED
10. Sensitising (H317) chemicals such as disperse dyes shall not be used, handled or manufactured unless proper and sufficient Occupational Health and Safety practices are adhered to as in Section 4.4.7 at Certified Entities and Chemical Formulators (see 4.2.5)	I RESTRICTED

Table 8: Restrictions in Printing

Manufacturing

Table - Finishing and Manufacturing

PARAMETER	CRITERIA
Selection of finishing methods and auxiliaries	
1. Mechanical, thermal and other physical finishing methods	✓ ALLOWED
2. Natural and synthetic Inputs that meet the basic requirements as set in Sections 4.2.2 and 4.2.3 only	
3. Stain removers that meet the basic requirements as set in Sections 4.2.2 and 4.2.3.	
4. Use of synthetic Inputs for anti-microbial finishing (including biocides), coating, filling and stiffening, lustering and matting, as well as weighting.	✗ PROHIBITED
5. Garment finishing methods that are considered to be harmful to the Workers (such as sandblasting of denim).	

Table 9: Restrictions in Finishing and Manufacturing

Machine Oils Requirement

- Machine Oils which may come in contact with GOTS Goods during processing/ manufacturing stages, along the GOTS supply chain shall be Heavy Metal-Free.
- Such Machine Oils may undergo a voluntary chemical input assessment procedure for an approval and can be listed in the GOTS Positive List.



Heavy Metal Definition in GOTS

- An Input is considered as 'Heavy Metal Free' if it does not contain heavy metals as a functional constituent and any impurity contained does not exceed the following limit values (as set by ETAD for dyes): Antimony: 50 mg/kg, Arsenic: 50 mg/kg, Barium: 100 mg/kg, Cadmium: 20 mg/kg, Cobalt: 500 mg/kg, Copper: 250 mg/kg, Chromium: 100 mg/kg, Iron: 2500 mg/kg, Lead: 100 mg/kg, Manganese: 1000 mg/kg, Nickel: 200 mg/kg, Mercury: 4 mg/kg, Selenium: 20 mg/kg, Silver: 100 mg/kg, Zinc: 1500 mg/kg, Tin: 250 mg/kg Special Limits for Pigments: Cadmium: 50 mg/kg; Mercury: 25 mg/kg.

Testing Requirement

✓ General Chemical Testing

- General Chemical Input (Scope 4)
- Specific Chemical in Processing Each Stages
- Machine Oil – Heavy Metal Free



Final Consumer Product

- Technical Quality Parameter
- GOTS Goods limit value for Residue
- GOTS Goods limit value for Additional Fiber

Environment Test Report

- Wastewater test report
- Noise pollution test report
- Air pollution test report
- Greenhouse Gas quantifying report

Technical Quality Parameters

PARAMETER	CRITERIA	TEST METHOD
Rubbing fastness, dry	3-4	ISO 105 X12
for fibre blends	3	
Rubbing fastness, wet	2	ISO 105 X12
Perspiration fastness, alkaline and acidic		ISO 105 E04
Shade Change	3-4	
Staining on Multi-fibre	3-4	
Perspiration fastness, for fibre blends		ISO 105 E04
Shade Change	3	
Staining on Multi-fibre	3	
Light fastness	3-4	ISO 105 B02
Dimensional change after washing at 40 °C (30°C for animal fibre material and blends thereof) <i>! This criterion is only valid for the garment sector</i>		ISO 6330
Knitted/hosiery	max. ±8%	
Woven	max. ±3%	
Saliva fastness (only for Textiles for Babies)	5	BVL B 82.92.3 DIN 53160-1
Washing fastness when washed at 40°C		ISO 105 C06 A1M
Shade Change	3-4	
Staining on Multi-fibre	3-4	
Washing fastness of animal fibre material and blends thereof when washed at 30 °C		ISO 105 C06 A1S <i>without use of steel balls</i>
Shade Change	3-4	
Staining on Multi-fibre	3-4	

Table 10: Technical Quality Requirements for GOTS Goods



Limit Values for residues in GOTS Good

PARAMETER	CRITERIA (limit values)	TEST METHOD
Alkylphenol (ethoxylates)		
NP, OP, HpP, PeP, NPEO, OPEO sum parameter	< 20 mg/kg	For AP: ISO 21084:2019 For NP, OP: Extraction, derivatisation, GC/MS or HPLC/MS
NP, OP, HpP, PeP sum parameter	< 10 mg/kg	For NPEO, OPEO: Extraction in methanol, derivatisation, HPLC/MS: EN ISO 18254-1 or NPLC: EN ISO 18254-2 (test range for NPEO and OPEO: 3-15 moles)
AOX	< 5 mg/kg	Extraction with boiling water, adsorption on charcoal; AOX analyser based on ISO 9562 Alternatively: HJ/T 83-2001
Arylamines		
With carcinogenic properties (amine-releasing azo dyes MAK III, category 1,2,3)	< 20 mg/kg	EN 14362-1 and -3; (HPLC/GCMS)
Aniline, free (MAK III category 4)	< 20 mg/kg	EN 14362-1; (HPLC/GCMS) without reductive cleavage
Disperse dyes classified as allergenic¹²	< 20 mg/kg	DIN 54231; (LC/MS)
Formaldehyde	< 16 mg/kg	Japanese Law 112; or based on ISO 14184-1
Glyoxal and other short-chain aldehydes (mono- and di-aldehydes up to C6)	< 20 mg/kg	Extraction (acc. to ISO 14184-1), ISO 17226-1 (HPLC)
PH value		ISO 3071
No skin contact	4.5-9.0	
All others	4.5-7.5	
Chlorophenols LFGB 82-02-08/ EN ISO 17070 (GC/MS)		
PCP	< 0.01 mg/kg	
TeCP	< 0.01 mg/kg	
TrCP	< 0.2 mg/kg	
DCP	< 0.5 mg/kg	
MCP	< 0.5 mg/kg	
O-Phenyl Phenol (OPP)	< 1.0 mg/kg	
Pesticides, sum parameter		
All natural fibres (except shorn wool)	< 0.1 mg/kg	§ 64 LFGB L 00.00-34 (GC/MS); § 64 LFGB L 00.00-114 (LC/MS/MS); L 00.00-115
Shorn wool	< 0.5 mg/kg	

PARAMETER	CRITERIA (limit values)	TEST METHOD
Extractable heavy metals In eluate. Figures in mg/kg refer to textile		
Antimony (Sb)	< 0.2 mg/kg	
Arsenic (As)	< 0.2 mg/kg	
Cadmium (Cd)	< 0.1 mg/kg	
Chromium (Cr)	< 1.0 mg/kg	
Cobalt (Co)	< 1.0 mg/kg	
Copper (Cu)	< 25.0 mg/kg	
Lead (Pb)	< 0.2 mg/kg	EN 16711-2, ISO 17294-2 (ICP/MS)
Nickel (Ni)	< 1.0 mg/kg	
Mercury (Hg)	< 0.02 mg/kg	
Selenium (Se)	< 0.2 mg/kg	
Tin (Sn)	< 2.0 mg/kg	
Manganese (Mn)	< 90 mg/kg	
Zinc (Zn)	< 750 mg/kg	
Barium (Ba)	< 1000 mg/kg	
Chromium VI (Cr-VI)	< 0.5 mg/kg	Elution using EN 16711-2, EN ISO 17075-2
Total heavy metals (in digested sample)		
Cadmium (Cd)	< 40 mg/kg	EPA 3050 B, ICP/MS, EPA 3051 or EN 16711-1
Lead (Pb)	< 50 mg/kg	EPA 3050 B, ICP/MS, EPA 3051 or EN 16711-1
Organotin compounds		
TBT	< 0.05 mg/kg	
TphT	< 0.05 mg/kg	
DBT	< 0.05 mg/kg	
DOT	< 0.05 mg/kg	Extraction in solvent, ISO 17353 (GC/MS) or ISO/TS 16179 or ISO 22744-1:2020, Part 1 and Part 2
MBT	< 0.1 mg/kg	
DMT, DPT, MoT, MMT, MPHT, TeBT, TCyHT, TMT, TOT, TPT, DphT, TeET	< 0.1 mg/kg	
Per- and polyfluoroalkyl Substances (PFAS) PFOA and related Substances such as		
Me-PFOA, Et-PFOA	< 0.025 mg/kg	DIN EN 17681-1
PFOS and PFAS C9-C14	< 0.025 mg/kg	DIN EN 17681-2
C9-C14 related PFAS	< 0.1 mg/kg	

PARAMETER	CRITERIA (limit values)	TEST METHOD
FTOH	< 0.01 mg/kg	
Phthalates, sum parameter		
Such as BBP, DBP, DCHP, DEHP, DEP, DHNUP, DHP, DHxP, DIBP, DIDP, DIHP, DIHxP, DINP, DMEP, DMP, DNOP, DNP, DPP, DPrP	< 100 mg/kg	DIN EN 15777:2009-12 (GC/MS) or ISO 14389
Polycyclic Aromatic Hydrocarbons (PAH)		
Sum	< 5.0 mg/kg	
Chrysene	< 0.5 mg/kg	
Benzo[a]anthracene	< 0.5 mg/kg	
Benzo[b]fluoranthene	< 0.5 mg/kg	
Benzo[j]fluoranthene	< 0.5 mg/kg	
Benzo[k]fluoranthene	< 0.5 mg/kg	
Benzo[a]pyrene	< 0.5 mg/kg	
Benzo[e]pyrene	< 0.5 mg/kg	
Dibenzo[a,h]anthracene	< 0.5 mg/kg	
Naphthalene	< 1.0 mg/kg	
Acenaphthylene	< 1.0 mg/kg	
Acenaphthene	< 1.0 mg/kg	
Fluorene	< 1.0 mg/kg	A/PS GS 2019:01 PAK
Phenanthrene	< 1.0 mg/kg	
Anthracene	< 1.0 mg/kg	
Fluoranthene	< 1.0 mg/kg	
Pyrene	< 1.0 mg/kg	
Indeno[1,2,3-cd]pyrene	< 1.0 mg/kg	
Benzo[g,h,i]perylene	< 1.0 mg/kg	
Cyclopenta (c,d)pyrene	< 1.0 mg/kg	
Dibenzo [a,e] pyrene	< 1.0 mg/kg	
Dibenzo [a,h] pyrene	< 1.0 mg/kg	
Dibenzo [a,i] pyrene	< 1.0 mg/kg	
Dibenzo [a,l] pyrene	< 1.0 mg/kg	
1-Methylpyrene	< 1.0 mg/kg	
Chlorinated paraffins, sum parameter		

Limit Values for Residues in Addition Fiber

PARAMETER	CRITERIA (limit values)		TEST METHOD
	Baby and personal care products	All other products	
Arylamines			
With carcinogenic properties (amine-releasing azo dyes MAK III, category 1,2,3)	< 20 mg/kg	< 20 mg/kg	EN 14362-1 and -3; (HPLC/GCMS)
Aniline (MAK III category 4) (free)	< 20 mg/kg	< 50 mg/kg	EN 14362-1 (HPLC/GCMS), without reductive cleavage
Disperse dyes (classified as allergenic or carcinogenic)	< 20 mg/kg	< 20 mg/kg	DIN 54231; (LC/MS)
Formaldehyde			
Skin contact	< 16 mg/kg	< 75 mg/kg	Japanese Law 112; or based on ISO 14184-1
No skin contact		< 150 mg/kg	
Glyoxal and other short-chain aldehydes (mono- and di-aldehydes up to C6)			
Skin contact	< 20 mg/kg	< 75 mg/kg	Extraction (acc. to ISO 14184-1); ISO 17226-1 (HPLC)
No skin contact		< 300 mg/kg	
PH value	4.0 - 7.5	4.0 - 7.5	ISO 3071
Chlorophenols			

PARAMETER	CRITERIA (limit values)		TEST METHOD
	Baby and personal care products	All other products	
PCP	< 0.05 mg/kg	< 0.5 mg/kg	
TeCP	< 0.05 mg/kg	< 0.5 mg/kg	
TrCP	< 0.2 mg/kg	< 2.0 mg/kg	LFGB 82-02-08; (GC/MS)
DCP	< 0.5 mg/kg	< 3.0 mg/kg	
MCP	< 0.5 mg/kg	< 3.0 mg/kg	
Pesticides, sum parameter			
All natural fibres (except shorn wool)	< 0.5 mg/kg	< 1 mg/kg	§ 64 LFGB L 00.00-34 (GC/MS); § 64 LFGB L 00.00-114 (LC/MS/MS); L 00.00-115
Shorn wool	< 1.0 mg/kg	< 1 mg/kg	
Extractable heavy metals			
Arsenic (As)	< 0.2 mg/kg	< 1.0 mg/kg	
Cadmium (Cd)	< 0.1 mg/kg	< 0.1 mg/kg	
Chromium (Cr)	< 1.0 mg/kg	< 2.0 mg/kg	
Cobalt (Co)	< 1.0 mg/kg	< 4.0 mg/kg	EN 16711-2, ISO 17294-2 (ICP/MS)
Copper (Cu) ¹³	< 25.0 mg/kg	< 50.0 mg/kg	
Lead (Pb)	< 0.2 mg/kg	< 1.0 mg/kg (not for glass)	
Nickel (Ni)	< 1.0 mg/kg	< 4.0 mg/kg	
Mercury (Hg)	< 0.02 mg/kg	< 0.02 mg/kg	
Chromium VI (Cr-VI)	< 0.5 mg/kg	< 0.5 mg/kg	Elution by EN 16711-2 EN ISO 17075-2
Total heavy metals (in digested sample)			
Cadmium (Cd)	< 40 mg/kg	< 40 mg/kg	EPA 3050 B, ICP/MS, EN16711-1
Lead (Pb)	< 90 mg/kg	< 90 mg/kg	
Nickel release	< 0.5 µg/cm ² /week	< 0.5 µg/cm ² /week	EN 12472, EN 1811
Organotin compounds			
TBT	< 0.5 mg/kg	< 1.0 mg/kg	
TphT	< 0.5 mg/kg	< 1.0 mg/kg	
DBT	< 1.0 mg/kg	< 2.0 mg/kg	Extraction in solvent, ISO 17363 (GC/MS) or ISO/TS 16179 or ISO 22744-1:2020, Part 1 and Part 2
DOT	< 1.0 mg/kg	< 2.0 mg/kg	
MBT	< 1.0 mg/kg	< 2.0 mg/kg	

¹³This criterion is not applicable to inorganic / non-biological materials such as metals

PARAMETER	CRITERIA (limit values)		TEST METHOD
	Baby and personal care products	All other products	
DMT, DPT, MoT, MMT, MPHT, TeBT, TcyHT, TMT, TOT, TPT, DphT, TeET	< 1.0 mg/kg	< 2.0 mg/kg	
Phthalates, sum parameter			
Such as DINP, DMEP, DNOP, DEHP, DIDP, BBP, DBP, DIBP, DEP, DHP, DHNUP, DCHP, DHxP, DiHxP, DPPP, DHP, DNP, DPP, DMP	< 0.05%	< 0.05%	ISO 14389
Polycyclic Aromatic Hydrocarbons (PAH)			
Sum parameter	< 5.0 mg/kg	< 10.0 mg/kg	
1-Methylpyrene	< 0.5 mg/kg	< 1.0 mg/kg	
Acenaphthene	< 0.5 mg/kg	< 1.0 mg/kg	
Acenaphthylene	< 0.5 mg/kg	< 1.0 mg/kg	
Anthracene	< 0.5 mg/kg	< 1.0 mg/kg	
Benzo(e)pyrene	< 0.5 mg/kg	< 1.0 mg/kg	
Benzo(j)fluoranthene	< 0.5 mg/kg	< 1.0 mg/kg	
Benzo[a]anthracene	< 0.5 mg/kg	< 1.0 mg/kg	
Benzo[a]pyrene	< 0.5 mg/kg	< 1.0 mg/kg	
Benzo[b]fluoranthene	< 0.5 mg/kg	< 1.0 mg/kg	
Benzo[g,h,i]perylene	< 0.5 mg/kg	< 1.0 mg/kg	
Benzo[k]fluoranthene	< 0.5 mg/kg	< 1.0 mg/kg	AFPS GS 2019:01 PAK
Chrysene	< 0.5 mg/kg	< 1.0 mg/kg	
Cyclopenta (c,d)pyrene	< 0.5 mg/kg	< 1.0 mg/kg	
Dibenzo [a,e] pyrene	< 0.5 mg/kg	< 1.0 mg/kg	
Dibenzo [a,h] pyrene	< 0.5 mg/kg	< 1.0 mg/kg	
Dibenzo [a,i] pyrene	< 0.5 mg/kg	< 1.0 mg/kg	
Dibenzo [a,l] pyrene	< 0.5 mg/kg	< 1.0 mg/kg	
Dibenzo[a,h]anthracene	< 0.5 mg/kg	< 1.0 mg/kg	
Fluoranthene	< 0.5 mg/kg	< 1.0 mg/kg	
Fluorene	< 0.5 mg/kg	< 1.0 mg/kg	
Indeno[1,2,3-cd]pyrene	< 0.5 mg/kg	< 1.0 mg/kg	
Naphthalene	< 0.5 mg/kg	< 1.0 mg/kg	

PARAMETER	CRITERIA (limit values)		TEST METHOD
	Baby and personal care products	All other products	
Phenanthrene	< 0.5 mg/kg	< 1.0 mg/kg	
Pyrene	< 0.5 mg/kg	< 1.0 mg/kg	
Chlorinated paraffins, sum parameter			
Short Chain Chlorinated Paraffins (C ₁₀₋₁₃) & Medium Chain Chlorinated Paraffins (C ₁₄₋₁₇)	< 50 mg/kg	< 50 mg/kg	
Cyclic siloxanes			
D4	< 250 mg/kg	< 250 mg/kg	Extraction in solvent, GC/MS
D5, D6	< 1000 mg/kg	< 1000 mg/kg	
Other chemical residues			
Azodicarboxamide/ Azodicarbonamide/ Diazena-1,2-dicarboxamide (ADCA)	< 1000 mg/kg	< 1000 mg/kg	
Solvent residues			
NMP, DMAc, DMF	0.05% by weight	0.05% by weight	Extraction with methanol, GC-MS or dynamic headspace
Formamide	0.02% by weight	0.02% by weight	
Chlorinated benzenes & toluenes	1.0 mg/kg	1.0 mg/kg	DIN EN 17137
Nonylphenol ethoxylates	100 mg/kg	100 mg/kg	
Quinoline	< 20 mg/kg	< 20 mg/kg	DIN 54231:2005 with methanol extraction followed by LC/MS

Table 12: Limit Values for Chemical Residues in Additional Fibres and Accessories

Table - Additional Requirements for Accessories

FURTHER PARAMETERS FOR SPECIFIC MATERIALS USED IN ACCESSORIES	CRITERIA (limit values)	TEST METHOD
Polyester fibres		
Antimony (Sb)	< 30 mg/kg	EN 16711-2; ISO 17294-2 (ICP/MS)
Natural latex foam		
Butadiene	< 1.0 mg/kg	GC - FID
Chlorophenols (incl. salts and esters)	< 1.0 mg/kg	LFGB 82-02-08 (GC/MS)
Carbon disulphide	< 0.02 mg/m ³	Chamber test, DIN ISO 16000-6
Nitrosamines	< 0.001 mg/m ³	Chamber test; ZH 1/120-23 or BGI 505-23 for air sampling and analysis

Table 13: Additional Requirements for Accessories

GOTS – Chemical Check Points

- Processor holds a valid GOTS letter of approval at the time of audit.
- The complete list of chemicals shall be available at the time of audit
- The all used input for the processing of GOTS goods must be listed on the GOTS Letter of approval issued by CB, in case non availability of Letter of approval, it must be checked from GOTS database, from below link
- <https://global-standard.org/find-suppliers-shops-and-inputs/approved-chemical-inputs>

Testing Requirement

✓ General Chemical Testing

- General Chemical Input (Scope 4)
- Specific Chemical in Processing Each Stages
- Machine Oil – Heavy Metal Free

✓ Final Consumer Product

- Technical Quality Parameter
- GOTS Goods limit value for Residue
- GOTS Goods limit value for Additional Fiber

Environment Management

- Wastewater test report
- Noise pollution test report
- Air pollution test report
- Greenhouse Gas quantifying report

Environment Management

Compliance and Policy:

- Adhere to GOTS criteria and national/local environmental laws.
- Maintain a written environmental and chemical management policy.
- Share policies with all employees.

Management system:

- **Responsible Personnel:** Assign duties for environmental and chemical management.
- **Resource Data:** Monitor energy and water consumption per kg of textile.
- **Goals:** Set targets to reduce energy/water use and increase renewable energy.
- **Waste Management:** Track waste and discharges per kg of textile, with goals to minimize.
- **Incident Procedures:** Have protocols for waste and pollution incidents.
- **Staff Training:** Train on resource conservation, chemical handling, and disposal.
- **Improvement Projects:** Implement long-term and short-term improvement projects.

Environment Management

Chemical and Waste Management:

- Maintain inventory of GOTS-approved chemicals.
- Keep records of chemical, energy, and water use; wastewater treatment.
- Measure and monitor wastewater, recycle/dispose of solid waste properly.
- No on-site waste burning or uncontrolled landfilling.

Pollution Monitoring:

- Monitor noise and air pollution per local regulations.
- Conduct periodic testing.

Greenhouse Gas (GHG) Management:

- Identify, monitor, quantify, and reduce GHG emissions.
- Collect initial data on GHG sources and identify reduction methods.
- Include product and supply chain emissions in long-term GHG management plans.

Wastewater Management

Compliance:

- Meet national, local, and GOTS criteria (whichever is more stringent).

Effluent Treatment Plant (ETP):

- Treat wastewater from all wet processing units before discharge.
- ETP must be effective, operational, and maintained.

Monitoring and Training:

- Periodic wastewater analyses at normal capacity.
- Provide ETP operation and maintenance training to staff.

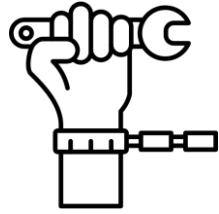
Discharge Limits:

- Wastewater discharge: Max 20 g COD/kg of processed textile (45 g COD/kg for scouring greasy wool).
- Water retting of bast fibres: Achieve COD reduction of at least 95% for hemp, 75% for other bast fibres.

pH and Temperature limits:

- Discharge pH: 6-9 (unless receiving water is outside this range).
- Discharge temperature: Less than 35°C (unless receiving water is above this value).

Human Rights and Social Criteria



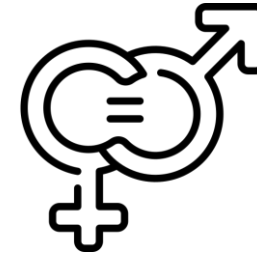
Forced Labour



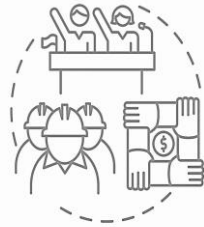
Child Labour



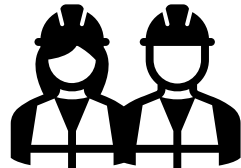
Discrimination
Harassment and
Violence



Gender Equality



Freedom of Association
Collective Bargaining



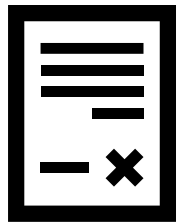
Health and Safety



Assessment of
Living Wage



Working Time



Precarious Employment



Migrant Worker



Homeworkers



Social Compliance
Management

Social Criteria

Forced Labour

- No forced labour or intimidation.
- Workers must offer services voluntarily (no bonded, trafficked, or indentured labour).
- Workers can voluntarily end employment without lodging deposits or documents.
- No fees for employment or retention.
- Workers are free to choose their lodging and transportation.

Child Labour

- No child labour allowed.
- Immediate removal and support for education if a child is found working.
- No hazardous or night work for young workers.
- Young workers: Max 8-hour workday, no overtime, 12-hour rest, and weekly rest days.
- Employment must allow continued education or vocational training.

Discrimination, Harassment, and Violence

- No discrimination in hiring, pay, training, or job assignments.
- Zero tolerance for harassment or violence, including sexual harassment.
- Encourage confidential reporting of abuse; investigate all allegations seriously.
- Disciplinary measures for proven harassment or discrimination.
- Clear, communicated disciplinary procedures for all workers.

Social Criteria

Gender Quality

- Equal, fair, and transparent recruitment, promotion, and reward practices.
- Equal opportunities for all genders in training and development.
- Protection for pregnant women, mothers, and children.
- Prevention of dismissals/career setbacks due to pregnancy or maternity leave.
- Protection against threats of dismissal to prevent marriage or pregnancy.
- Protection for workers with family responsibilities from discrimination.

Freedom of Association and Collective Bargaining

- Respect for freedom of association and right to collective bargaining.
- Support for union activities; no interference or surveillance.
- Provision of time and space for workers to organize and engage in collective bargaining.
- Support for worker representatives; no discrimination or reprisals.
- Respect for collective bargaining agreements.
- Communication of workers' rights to freedom of association and collective bargaining.
- Facilitation of independent and free association and bargaining where restricted by law.



Social Criteria - OHS

Safe and Hygienic Conditions: Establish and maintain an OHS system to detect, assess, avoid, and respond to potential health and safety threats.

Regular Hazard Assessment: Identify and assess existing and potential hazards regularly, providing a safe environment based on industry knowledge and specific hazards.

Protection for Vulnerable Workers: Offer special protection for young workers, new and expecting mothers, and persons with disabilities.

Accident Prevention: Implement systems to prevent workplace accidents, injuries, and illnesses, minimizing hazards and providing personal protective equipment (PPE) at no cost.

Medical Assistance: Ensure adequate medical facilities and first-aid arrangements for emergencies and accidents.

Chemical Safety: Maintain Safety Data Sheets (SDS) for all chemicals used and implement health and safety measures for handling and storing these chemicals.

Building and Equipment Safety: Ensure the stability and safety of buildings and equipment, including worker accommodations, and enable workers to exit premises in emergencies without permission.

Fire Safety Compliance: Adhere to local fire safety regulations, provide firefighting equipment, and maintain functioning fire alarms on all floors.

Emergency Exits: Ensure unrestricted, clearly marked emergency exits and escape routes.

Safety Training and Signage: Provide training in the local language, use pictograms for safety signs, and involve workers in OHS discussions.

Regular Training: Conduct regular health and safety training, including fire prevention and evacuation drills, for all workers, including homeworkers.

Protection for Homeworkers: Ensure homeworkers receive equivalent protection to facility workers.

Facilities and Amenities: Provide functional, clean toilet facilities, free potable water, rest areas, food areas, and sanitary facilities.

Clean and Safe Accommodation: Offer clean, safe accommodations that meet workers' basic needs.

OHS Responsibility: Assign a senior management level person responsible for health and safety requirements.

Social Criteria

Remuneration and Living Wage

- Provide written employment conditions, meet national or industry wage standards.
- Ensure wages cover basic needs with some discretionary income.
- Pay piece rate workers comparably to hourly workers, ensure regular and prompt payment.
- Use digital payment where possible, prohibit withholding remuneration.
- Pay overtime at premium rates, calculate and plan to cover the 'Wage Gap' to achieve Living Wage.

Working Time

- Comply with laws and standards, maximum 8 hours/day, 48 hours/week.
- Ensure rest breaks, at least 24 consecutive hours of rest per 7-day period.
- Overtime is voluntary, not exceeding 12 hours/week, and not regularly demanded.

Homeworkers

- Ensure equal treatment compared to facility workers, considering homework characteristics.

No Precarious Employment

- Recognise employment relationships, comply with labour and social security laws.
- Avoid labour-only contracting, excessive fixed-term contracts, and arrangements undermining worker protection.

Migrant Workers

- Ensure equal treatment for migrant workers in remuneration and conditions.
- Provide clear employment contracts in a language understood by the worker.
- Fair rates for provided services like food, accommodation, and transportation.

Governance Criteria

Principles:

- Ethical behavior is essential across the supply chain.
- Builds confidence among stakeholders (workers, partners, customers, certifiers).

Code of Conduct (CoC):

- Must prescribe ethical principles, honesty, and fair dealings.
- Prohibit corruption and bribery.

Adherence and Transparency:

- Follow OECD guidelines.
- Avoid corruption, extortion, embezzlement, and bribery.
- Maintain accurate information and disclose it per regulations.
- Avoid falsification and misrepresentation.

Data handling:

- Process personal information with care and per privacy laws.
- Establish a whistle-blower mechanism to report corruption or non-compliance.

Training and Awareness:

- Provide staff with training on integrity regulations and sanctions for non-compliance.

Contents

1. GOTS Scopes

- 1a. GOTS Scopes
- 1b. GOTS labeling Grade

2. Traceability

- 2a. Record keeping, Internal Quality.
- 2b. Segregation, Storage, Packaging and Transport.

3. Material Requirements

4. Environment, Social and Governance Criteria

- 4a. Management Process
- 4b. Chemical Input
- 4c. Environmental Criteria
- 4d. Human Rights and Social Criteria
- 4e. Governance Criteria

5. Product Technical Quality Criteria

- 5a. Technical Quality Parameters
- 5b. Residue's limit value (Chemical)
- 5c. Accessories and additional fiber limit value

6. Special requirements for special products

- 6a. Textile Personal Care Products
- 6b. Food Contact Textiles

GLOBAL ORGANIC TEXTILE STANDARD (GOTS)

VERSION 7.0

March 2023

Effective Date: 1 March 2024

Global Standard gemeinnützige GmbH
Rotebühlstr. 102 · 70178 Stuttgart · Germany

www.global-standard.org



Special requirements for special products

GROUP 1 PRODUCTS

Fibre Material Components:

- Totally **Chlorine Free** (TCF)
- Non-woven and absorbent **shall be 100% organic**
- **Synthetic fibre** components are **not permitted** for group II products. Unless meet 6.1.2.1

Super Absorbing Polymers (SAPs):

- Shall made from **non-GMO** renewable materials
- Maximum 5% by weight of water-soluble extracts.

Barrier Films:

- Except for wound contact layers, barrier films shall be composed of **biodegradable polymers**.
- All raw materials used **shall be non-GMO**.

Specific Criteria for Tampons:

- Only paper or cardboard tampon applicators are permitted. Additional materials need to follow 5.2.8
- **Synthetic** security veils are **not permitted**.

6.1 Textile Personal Care Products

GROUP I	Topical Products	<i>Cottonwool, sanitary towels, bandages, nappies, gauze cotton tissue (Gamgee), island dressings, wound strips, sticking plasters, gauze dressinas etc.</i>
GROUP II	Physically Invasive Products	<i>Tampons, cotton buds, dental roll etc.</i>
	Clinically Invasive Products	<i>Surgical swabs, gauze swabs etc.</i>

Table 14: Grouping of Textile Personal Care Products

GROUP II PRODUCTS:

- **Sizing:** **No sizing** shall be used.
- **Colourants:**
 - Meet legal regulation
 - Must be GOTS approved.
- **Optical Brightening Agents:**
 - Optical brightening agents **shall not be used**.
- **Fragrances, Lotions and Lubricants:**
 - Comply with input criteria of GOTS
 - Comply with criteria of COSMOS Standard. (Cosmetics Organic and Natural Standard)

Special requirements for special products

6.2 Food Contact Textiles

Important Note:

- Any entity selling FCTs shall be aware of and meet the specific legal (hygienic and GMP) requirements applicable for its products and in the country/region where they are sold.
- Some of these legal requirements for specific FCTs conflict with environmental criteria set by GOTS. Accordingly, except where specified below, these products cannot be certified and labelled to GOTS.

Specific material and Input criteria

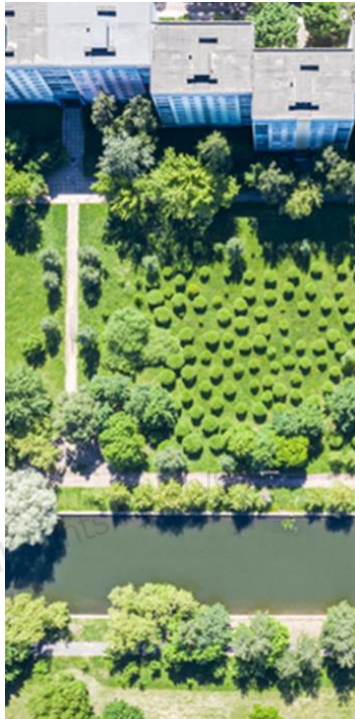
- All textiles used shall be **Totally Chlorine Free** (TCF).
- FCTs shall be composed of 100% certified organic fibres.
- **Printing is prohibited** on the food contact side of the textiles. GMP should, in particular, ensure that chemical Substances are not transferred through the substrate.



Thank you



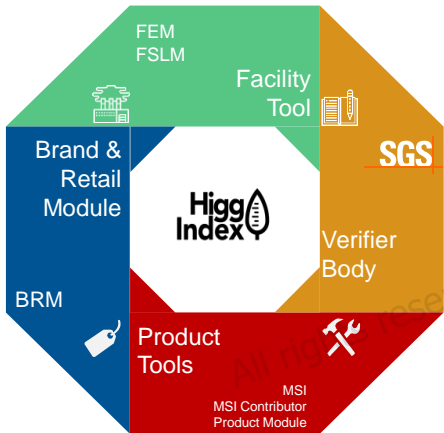
Contents



- What is the Higg Index?
- What is the Higg Facility Environmental Module?
- Overview Higg FEM 4.0
- Getting started: Higg FEM 4.0
- Q&A

SGS (Cambodia) Limited

Higg Index Overview



The Facility Environment Module and Facility Social & Labor Module enable yearly measurement, evaluation, and performance improvement in categories such as water, energy, chemical management, and employee safety

The Brand & Retail Tool helps brands and retailers measure their overall social and environmental impact across categories such as operations, stores, and supply chain.

The Materials Sustainability Index and Product Module provide information about the impact of materials used in the apparel, footwear, and home textile industries

Verifier Body
SGS is only of the few SAC approved verifier bodies that can provide verification services for the Higg FEM, FSLM and BRM

SGS

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What is the Higg Facility Environmental Module?

The Higg Facility Environmental Module is a sustainability assessment tool that standardizes how facilities measure and evaluate their environmental performance, year over year.

The Higg FEM is designed to:

- **Measure and quantify** the sustainability impacts of a facility
- **Reduce redundancy** in measuring and reporting sustainability performance
- **Drive business value** through reducing risk and uncovering efficiencies
- **Create a common** means and language to communicate sustainability to stakeholders

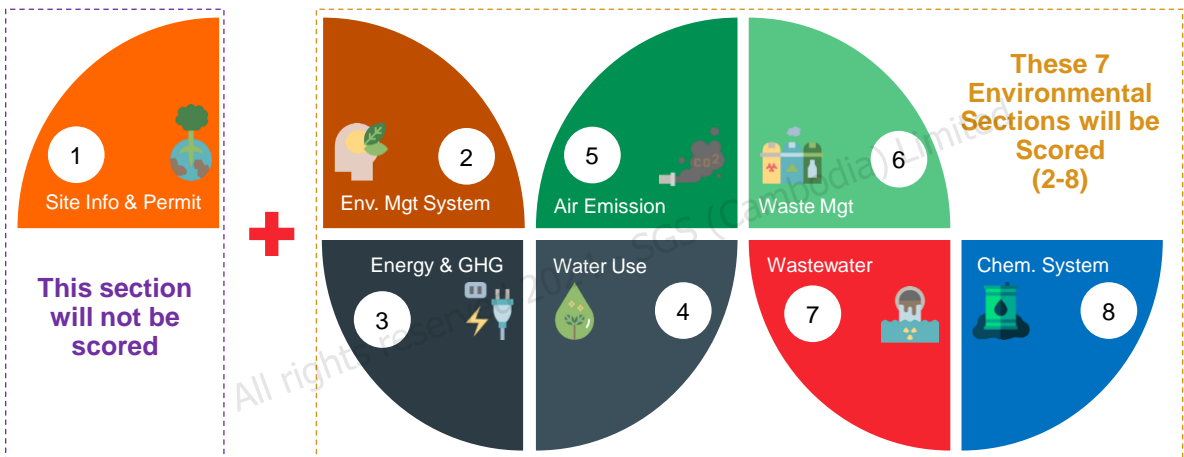
We can call “Higg FEM”

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4



The Higg FEM Measures (7+1)



Higg Index FEM



Aspirational / Leading Practices

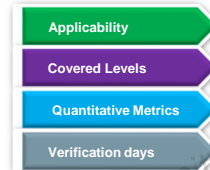
- Demonstration of leadership
- Making continuous reduction for 3 years or more

Baselining, Targets/Goals & Reductions

- Setting achievable targets
- Having action plans in place
- Starting to make basic reduction on the environmental impacts

Compliance & Tracking Performance

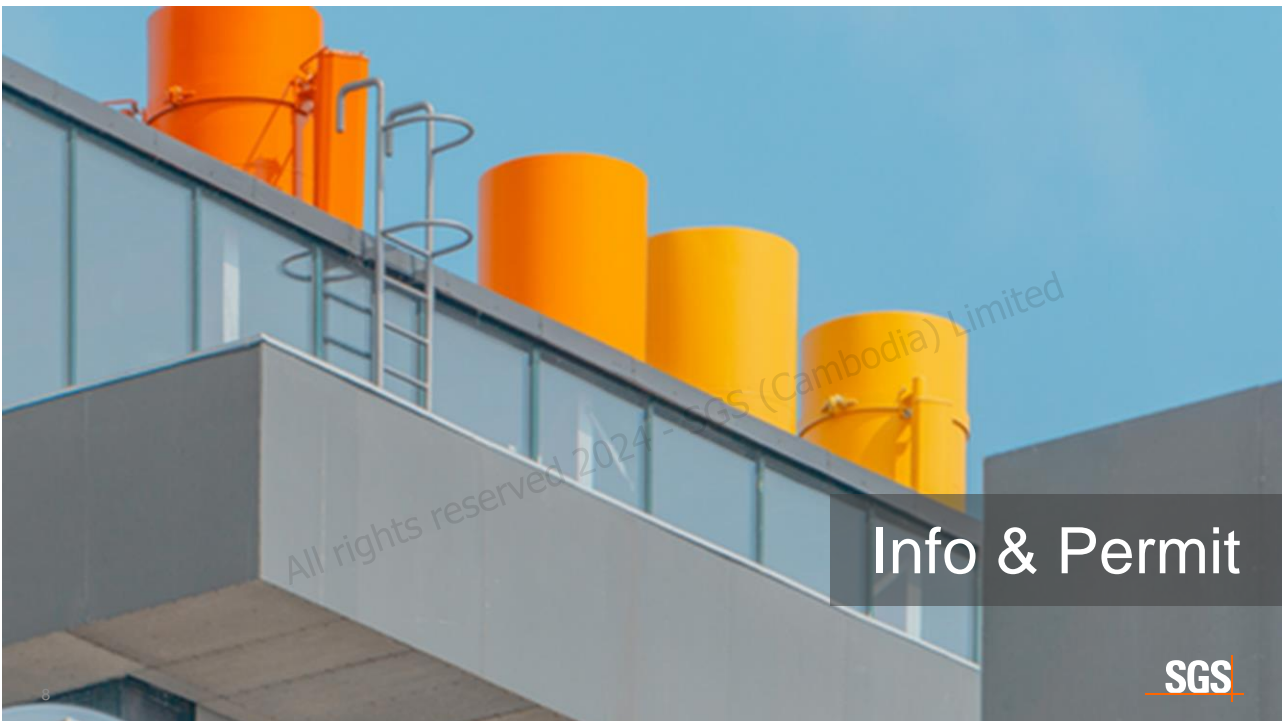
- Adequately tracking the environmental impacts
- Setting up environmental management system
- Meeting local environmental legislations



FEM	
Applicability	New and current FEM users
Covered Levels	Level 1 to level 3 questions in FEM
Quantitative Metrics	Included
Verification days	From 1 to 3 day in general

The full FEM should be the default choice even for new suppliers unless there are significant barriers preventing usage.

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Info & Permit



Info & Permit

Highlights

- Facility type
- Valid operating license
- Annual production volume
- Compliance status with relevant environmental permits
- Records from IPE (Institute of Public & Environmental Affairs) – applicable to facilities in China
- A list of applicable legal & other requirements
- A list of applicable Permits & Licenses



REMARK:

Invalid Operating License and Environmental Permit will lead to "Zero" Score for the whole module



Environmental
Management System

EMS

Highlights

- Clear responsibility
- Environmental impact assessment
- Long-term environmental strategy
- Compliance with legal and other requirements (Regular Monitoring)
- Effective process for equipment maintenance
- Engage facility leadership & workers on environmental performance
- Subcontractors / upstream supplier engagement using Higg Index
- Local stakeholders on environmental performance improvements



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Energy & GHG

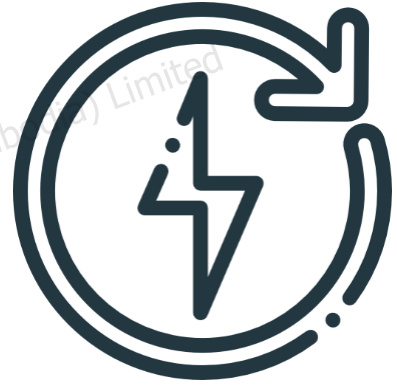


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Energy & GHG

Highlights

- Data from last calendar year is needed for Higg FEM e.g for FEM 2023, yearly data from 2023 is expected
- Reduce energy use → Reduce GHG
- Reduce exposure to regulatory Risks
- Track all energy and fuel sources
- Set normalized baseline for energy
- Set improvement target
- Improvement plans with effective monitoring



REMARK:

ENERGY CONSUMPTION QUANTITIES AND UNITS ENTERED INTO THE HIGG FEM ARE OFTEN NOT ACCURATE

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Water Use

Highlights

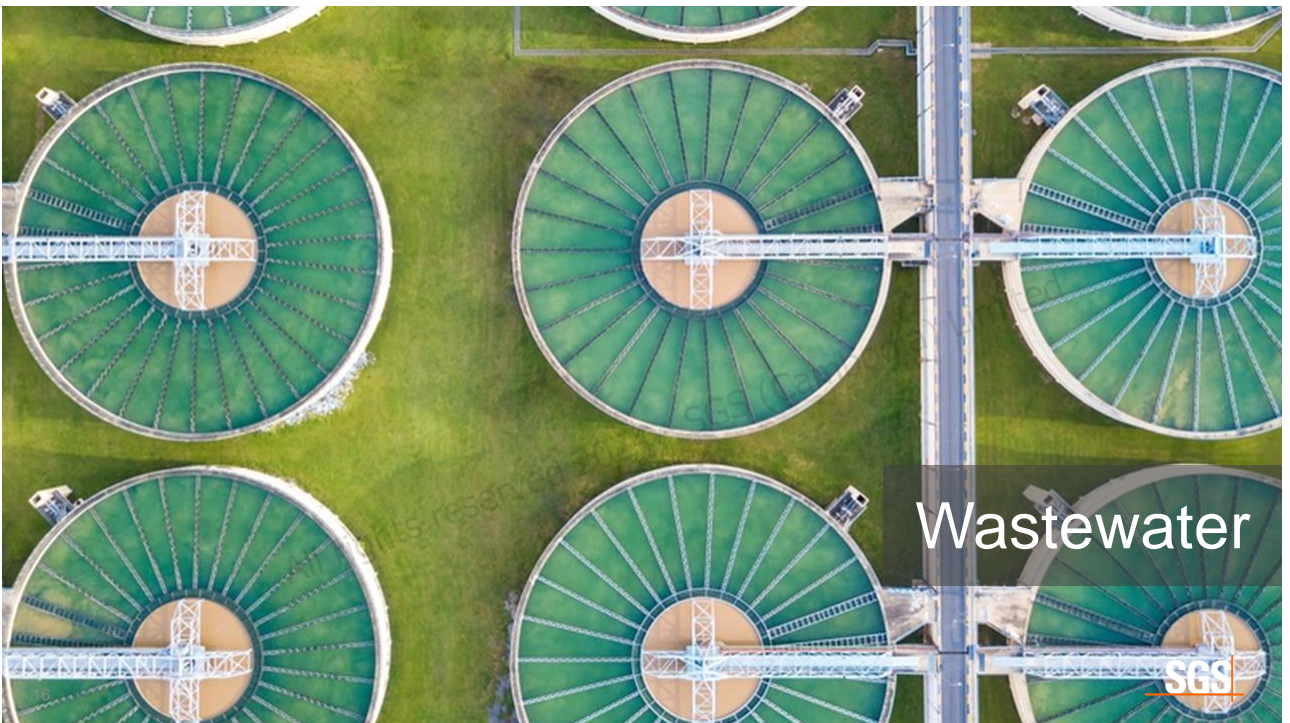
- Evaluate your water risks according to your regions (WRI or WWF)
- $>35\text{m}^3/\text{day}$ → Heavy User
- $\leq 35\text{m}^3/\text{day}$ → Light User
- High water risk – Full Water Section
- Low water risk – ONLY Level 1 questions
- Track ALL water sources
- Data from last calendar year is needed, ie. 2023 data for FEM 2023
- Set normalized baseline
- Set up improvement targets
- Improvement action plans with effective monitoring and timeline



REMARK:

ENSURE THAT ALL SOURCES OF WATER (MUNICIPAL, GROUND, SURFACE, RECLAIMED WASTEWATER, ETC) USED AT THE SITE ARE INCLUDED

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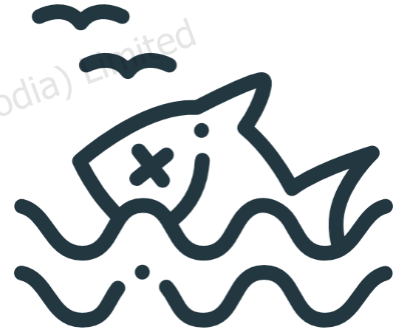



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Wastewater

Highlights

- Facility should be fully aware of how much wastewater is being produced and where it is discharged
- Track wastewater volume
- Compliance with legal and other Requirements (e.g ZDHC)
- Emergency Response Plan (ERP)
- Proper disposal of Sludge
- Two types of wastewater
 - Domestic
 - Toilets, showers, kitchens, cleaning, etc
 - Industrial
 - Production, lubrication, cooling, maintenance, cleaning of production machines, etc



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Air Emissions

Highlights

- Common air pollutants (PM10, PM2.5, NOx, SOx VOCs, ODS, etc)
- Sources of air emissions
 - Point source
 - Fugitive/area source
- Track quantity of emissions from facility operations, production and refrigeration
- List control devices / abatement processes and monitoring frequency
- Abatement technologies such as
 - Activated carbon filter,
 - Cyclone,
 - Scrubber,
 - Electrostatic precipitator, etc



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Waste Management

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Waste Management

Highlights

- Hazardous Waste – Could harm to public health and/or the environment
- Track all Hazardous and Non-Hazardous waste streams
- Proper Segregation & Labeling (e.g All hazardous wastes must be separated from non-hazardous wastes)
- Proper Ventilation & Protection
- Appropriate disposal methods used (no open burning or dumping)
- Set Baseline For Waste Reduction Targets
- Prepare Improvement Plan



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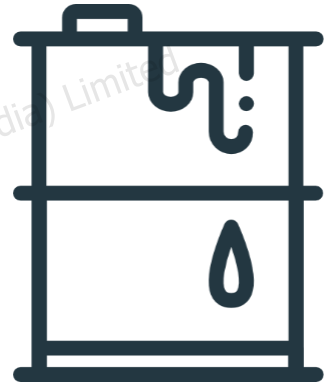


Chemicals Management

Highlights

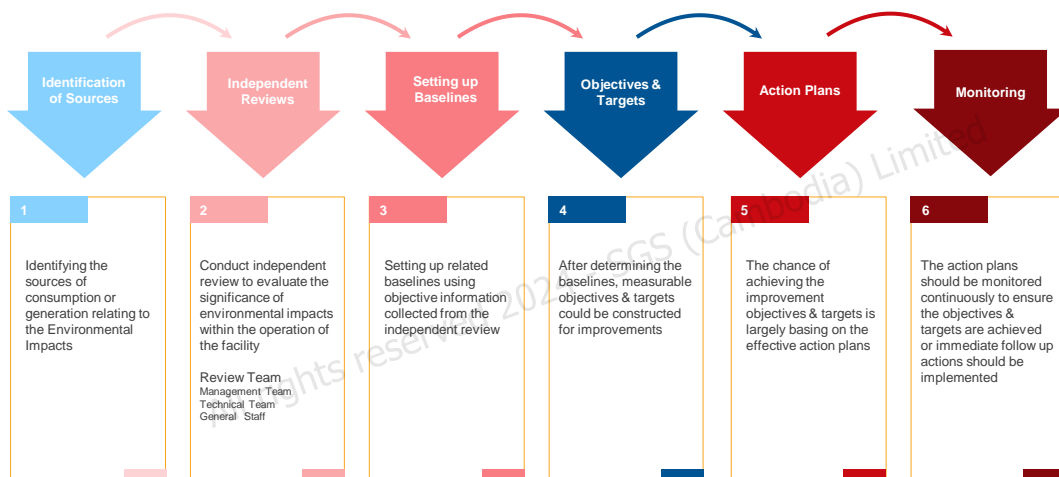
A robust chemicals management program should contain the following areas:

- Chemical management system (CMS), Chemical management policies, compliance procedures, and commitments
- Employee training and communication
- Chemical procurement and purchasing practices
- Chemical handling, use and storage practices
- Chemical inventory management (including RSL /MRSL)
- Emergency Response Plan (ERP)
- Product quality and integrity
- Chemicals and process innovation
- Continuous Improvements



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Higg Index FEM general approach



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Getting Started: Higg FEM 4.0

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worldly

English

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Welcome to Worldly.

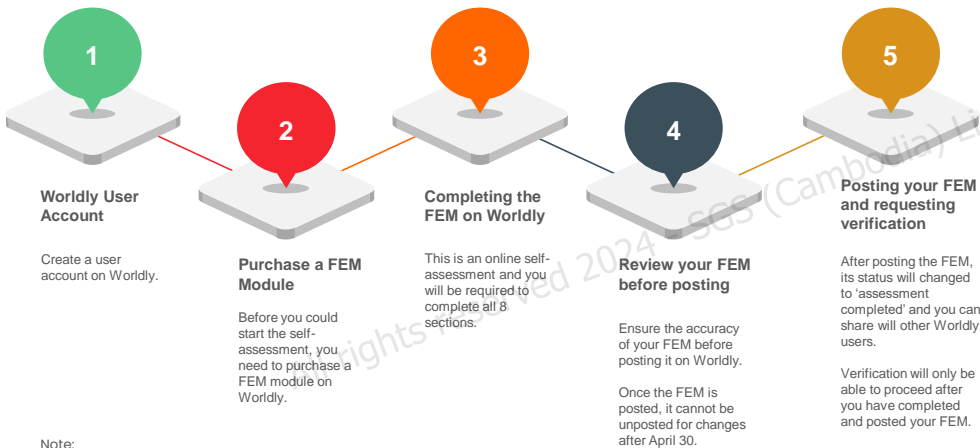
Worldly is the home of the Higg Index and more. As the planet's most comprehensive impact intelligence platform, Worldly delivers real data specific to your supply chain, products, and operations — all in one place, so you can know your true impact.

Higg Index SOCIAL & LABOR CONVERGENCE FFC

Apply: <https://app.worldly.io/user-registration/login>

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Self-assessment Flow



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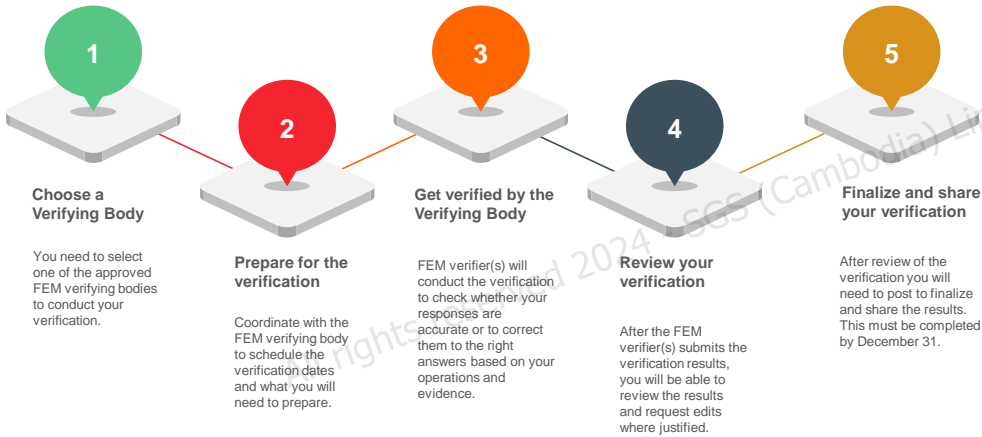


What is a Higg FEM Verification?

- Verification is not a pass/fail assessment or audit. It serves to verify the self-assessment submitted by the facility.
- There is no 'minimum score' in Higg FEM.
- Higg FEM focuses on performance monitoring of critical and minimum legal and industry standards as well as supporting the facility in its continuous improvement.
- In 2024, only Level 1 questions can be verified, called 'Core Verification'.

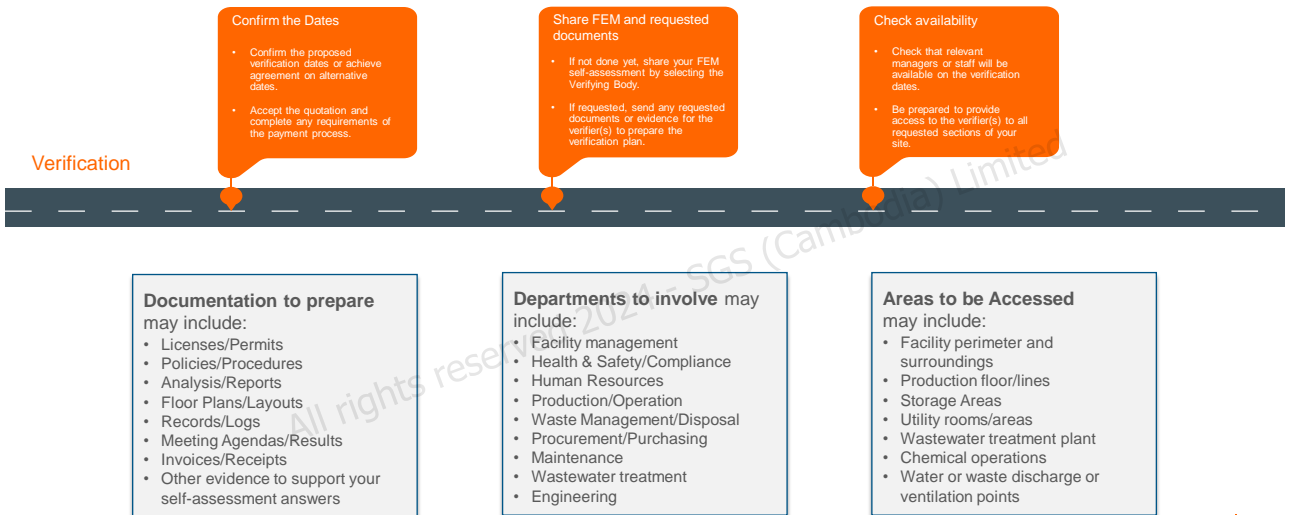


Verification Flow



Note:
vFEM – verification

Prepare for the Verification




Cascale Technical Supports (howtohigg.org)

Higg Index Learning Center

The Higg Index is a suite of tools for the measurement of value chain sustainability—developed by the Sustainable Apparel Coalition, and hosted exclusively on Worldly. Explore detailed guidance and trainings for the Higg Index.






Facility Tools

The *Facility Environment Module* and *Facility Social Labor Module* enable yearly measurement, evaluation, and performance improvement in categories such as water, energy, chemical management, and employee safety.

FEM

FSLM




Product Tools

The *Materials Sustainability Index* and *Product Module* provide information about the impact of materials used in the apparel, footwear, and home textile industries.

MSI Contributor

MSI

Product Module



Brand & Retail Tool

The *Brand and Retailer Module (BRM)* helps brands and retailers in the textile, apparel and footwear industry measure the environmental, social and governance impact of their business operations and identify opportunities for yearly improvements in their sustainability performance.

BRM

Click here to acquire more information on the Higg FEM

This technical guide includes useful technical information for gain better understanding Higg FEM questions

Source: <https://howtohigg.org/>



Questions?





Thank you!

Do you have any questions?

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