NA 062 DIN-Normenausschuss Materialprüfung (NMP)
NA 062-05-43 GA Gemeinschaftsarbeitsausschuss NMP/NHM, Brennverhalten von Textilien, Textil- und Polsterverbunden
E-Mail des Bearbeiters bei DIN: vivien.vogt@din.de

Meinungsbild zu neuem Normungsvorhaben ISO/NP 5157 "Textiles – Environmental aspects – Vocabulary" des ISO/TC 38 "Textiles" und damit verbundene Neugründung einer neuen Arbeitsgruppe ISO/TC 38/WG 35 "Environmental aspects"

Datum des Dokumentes	2020-04-09
Aktion	Antwort
Antworttermin	2020-05-04

Sehr geehrte Damen und Herren,

auf der letzten Plenarsitzung des ISO/TC 38 „Textiles“ in Treviso am 18. Oktober 2019 wurde das Thema „Textiles– Environmental aspects“ von Schweden vorgestellt (siehe ISO/TC 38 N 3769). Die globale Textilindustrie steht vor der Herausforderung, sich an zirkuläre Geschäftsmodelle anzupassen, um die Verfügbarkeit von Ressourcen und nachhaltige Praktiken entlang des gesamten textilen Lebenszyklus zu gewährleisten. Schweden sieht die Notwendigkeit erhöhter Anforderungen an die Zirkularität von textilen Materialien und Produkten. Dazu gehören z. B. die Verwendung und Wiederverwendung sowie das Recycling von produziertem Material auszuweiten um dadurch u. a. den Bedarf an Neumaterial zu minimieren. Eine gemeinsame Terminologie kann dazu dienen, das Risiko des „Greenwashing“ zu verringern, durch Transparenz einen Mehrwert zu erzeugen, das Vertrauen bei den Verbrauchern zu stärken, und einen leichteren Informationstransfer zwischen den Beteiligten der Textilbranche zu ermöglichen.

Das vorgeschlagene neue Normungsvorhaben ISO/NP 5157 muss aus unserer Sicht als horizontales Thema betrachtet werden, da es gemeinsame Schnittmengen unterschiedlicher Normenausschüsse und bereits etablierter und teilweise rechtlich eingeführter Terminologien zu umweltrelevanten Themen, wie Circular economy usw. aufweist.

ISO/TC 38 hat das vorgeschlagene Normungsvorhaben ISO/NP 5157 Textiles - Environmental aspects –Vocabulary zur Abstimmung gestellt (siehe Anhang). Es soll in das Arbeitsprogramm des Technischen Komitees aufgenommen werden.

Bei Annahme des Normungsvorhabens ISO/NP 5157 soll außerdem eine neue Working-Group (ISO/TC 38/WG 35 „Environmental aspects“) zur Erarbeitung dieser Norm gegründet werden, deren Sekretariatsführung von Schweden (SIS) angestrebt wird. Als Convenor wird Frau Dr. Sandra Roos vorgeschlagen. Die Annahme des ISO/NP 5157 und die daran gebundene Neugründung der ISO/TC 38/WG 35 „Environmental aspects“ voraussetzend, soll der erste Sitzungstermin der internationalen Arbeitsgruppe am 2020-07-25 stattfinden.

Sollte das neue Normungsvorhaben ISO/NP 5157 angenommen und die für die Bearbeitung dieses Projekts zuständige Arbeitsgruppe ISO/TC 38/WG 35 gegründet werden, schlagen wir vor, die Arbeiten unter der Federführung der Textilnorm in einem Gemeinschaftsarbeitsausschuss Textilnorm/NAW (Umwandlung und Reaktivierung des NA 106-01-20 AA „Ökologische, umweltfreundliche Textilien“) zu spiegeln.

Wir bitten Sie hiermit, um Prüfung der oben aufgeführten Thematik. Sollten Sie Kommentare, Hinweise zum neuen Gemeinschaftsarbeitsausschuss Textilnorm/NAW oder Interesse an einer Mitarbeit zu dem vorgestellten

Projekt haben, bitten wir um Rückmeldung per E-Mail an Frau Vogt (vivien.vogt@din.de) bis spätestens zum **04. Mai 2020**.

Sollten Sie Kommentare oder Hinweise zu dem neuen Normungsthema ISO/NP 5157 haben, erwarten wir diese möglichst in englischer Sprache in der Ihnen bekannten Kommentartabelle.

Vielen Dank für Ihre Unterstützung!

Mit freundlichen Grüßen,

DIN-Normenausschuss Materialprüfung (NMP)

i. A.

Vivien Vogt
Projektmanagerin

Textiles – Environmental aspects

- ongoing work in Sweden

Problem identification

208 tonnes of textile waste in Sweden daily

*Less than **1%** is recycled.*

= Negative environmental impacts

Information and ***traceability*** throughout the value chain crucial

Waste – resource

Too little textile is recycled due to the fact that cotton and viscose can't be recycled with satisfactory quality on a large enough scale.

Background
Increasingly stricter demands regarding textiles

Customer

Customers demand sustainability

Conscious customer groups growing

Policy

Waste Directive

REACH

Circular Economy Package

- Collection of textile waste in Sweden
- Need to increase recyclability

Businesses

Adjust to new demands of circularity

Adjustment needed in production, traceability, waste collection, waste management, recycling industry etc.

→ *Begins with adherence to changes in market.*

Situation

- National working group with strong actors
  - **H&M, IKEA, RISE, GS1** etc.
  - Funds from state agencies
  - Knowledge and resources
- Need of common terminology
  - ➢ Terminology draft by end of 2019
- Enable traceability throughout value chain
  - ➢ Digital information carriers
- Method for recycling of textiles of mixed fiber
  - ➢ Swedish example

Vision

- Global industry needs global co-operation.

ISO-standardization is key.

Follow the footsteps of ISO/TC 61 Plastics

➢ Early stage standardization important to avoid suboptimal multitudes of initiatives separately.

- **WG XX Environmental aspects?**

An active and innovative WG, responding to the needs of the market. A WG under Swedish convenorship

Next step

Present PWI Terminology to ISO/TC 38 by dec 2019/jan 2020

CIB new WG?

Any global support?

Form 4: New Work Item Proposal

Circulation date: 2020-03-31 Closing date for voting: 2020-06-24	Reference number: ISO/NP 5157 (to be given by Central Secretariat) ISO/TC 38 **N 3874**
Proposer (e.g. ISO member body or A liaison organization) SIS	
Secretariat JISC	

A proposal for a new work item within the scope of an existing committee shall be submitted to the secretariat of that committee with a copy to the Central Secretariat and, in the case of a subcommittee, a copy to the secretariat of the parent technical committee. Proposals not within the scope of an existing committee shall be submitted to the secretariat of the ISO Technical Management Board.

The proposer of a new work item may be a member body of ISO, the secretariat itself, another technical committee or subcommittee, an organization in liaison, the Technical Management Board or one of the advisory groups, or the Secretary-General.

The proposal will be circulated to the P-members of the technical committee or subcommittee for voting, and to the O-members for information.

☒ The proposer has considered the guidance given in the Annex C during the preparation of the NWIP.

Resource availability

☒ There are resources available to allow the development of the project to start immediately after project approval (e.g. project leader, related WG or committee work programme)

Note: If resources are not available, it is recommended that the project is first registered as a preliminary work item (a Form 4 is not required for this) and when the development can start, Form 4 should be completed to initiate the NP ballot.

Proposal (to be completed by the proposer)

Title of the proposed deliverable.

English title:

Textiles -- Environmental aspects -- Vocabulary

French title:

Textiles -- Aspects liés à l'environnement -- Vocabulaire

(In the case of an amendment, revision or a new part of an existing document, show the reference number and current title)

Scope of the proposed deliverable.

This document provides general terms and definitions used in the textile value chain related to environmental aspects including design, production, retail, use and reuse, recycling processes and disposal.

This document is applicable to all stakeholders in the textile value chain regardless of size and location. Stakeholders will benefit from a common terminology for addressing issues related to environmental aspects of textile products and processes.

This document will not specify sustainability (social, environmental or economic) in general. Definitions are as far as possible adapted from existing standards but when the intention or definition is unclear additional context or definitions are updated or added.

Purpose and justification of the proposal*

The global textile industry is facing challenges in adapting towards circular business models to ensure resource availability and sustainable practices. Currently, actors all along the textile life cycle contribute negatively to climate change and other environmental impacts. We see increased demands to increase circularity of textile materials and products. There is a need to extend the use and increase reuse and recycling of produced material and thus minimize the need of virgin material. Standardization can help connect actors, policy makers and industrial segments with the latest research results, enabling a transition towards more environmentally benign processes.

To date, the terminology regarding environmental aspects used in the textile industry has not been standardized, causing confusion, ineffectiveness and worst case prohibiting/hindering sustainable practices in the textile sector. The global nature of the textile industry highlights the need for global as well as national standards, enabling a common understanding and facilitate trade. A common vocabulary may serve to reduce the risk of greenwashing, bringing value for actors aiming to be transparent as well as facilitating the development of trust among consumers.

By concluding a common terminology, the aim is to enable transparency and easier transferral of information between actors and industrial segments. Terminology in use today has been inherited from the chemical, mechanical, agricultural and fashion industries, resulting in inconsistent terminology. Consistency is an important building block, essential for taking steps towards a more sustainable textile industry.

The terms in this document have been collected from research projects and international standards, supplemented by terms agreed on in discussions in a Swedish working group with representatives from the production, service, sustainability research, education, retail, waste management and digital sectors.

The terminology will enable future work on the environmental aspects of textiles, that may have a great impact on the industry and the world.

Consider the following: Is there a verified market need for the proposal? What problem does this standard solve? What value will the document bring to end-users? See Annex C of the ISO/IEC Directives part 1 for more information. See the following guidance on justification statements on ISO Connect:
https://connect.iso.org/pages/viewpage.action?pageId=27590861

Sustainable Development Goals (SDGs)

Goal 6: Clean Water and Sanitation
Goal 8: Decent Work and Economic Growth
Goal 9: Industry, Innovation, and Infrastructure
Goal 12: Responsible Consumption and Production
Goal 13: Climate Action
Goal 14: Life Below Water
Goal 15: Life on Land

Preparatory work (An outline should be included with the proposal)

☒ A draft is attached ☐ An outline is attached ☐ An existing document will serve as the initial basis

The proposer or the proposer's organization is prepared to undertake the preparatory work required:

☒ Yes ☐ No

If a draft is attached to this proposal:

Please select from one of the following options (note that if no option is selected, the default will be the first option):

☒ Draft document can be registered at Working Draft stage (WD - stage 20.00)
☐ Draft document can be registered at Committee Draft stage (CD - stage 30.00)
☐ Draft document can be registered at Draft International Standard stage (DIS - stage 40.00)

If the attached document is copyrighted or includes copyrighted content:

☐ The proposer confirms that copyright permission has been granted for ISO to use this content in compliance with the ISO/IEC Directives, Part 1 (see also the Declaration on copyright).

Is this a Management Systems Standard (MSS)?

☐ Yes ☒ No

NOTE: if Yes, the NWIP along with the Justification study (see Annex SL of the Consolidated ISO Supplement) must be sent to the MSS Task Force secretariat (tmb@iso.org) for approval before the NWIP ballot can be launched.

Indication of the preferred type or types of deliverable to be developed

☒ International Standard ☐ Technical Specification

☐ Publicly Available Specification

Proposed Standard Development Track (SDT)

☐ 18 months* ☐ 24 months ☒ 36 months ☐ 48 months

*Projects using SDT 18 are eligible for the 'Direct publication process' offered by ISO /CS which reduces publication processing time by approximately 1 month

Draft project plan (as discussed with committee leadership)

Proposed date for first meeting: 2020-07-25

Dates for key milestones: 1st Working Draft (if any) circulated to experts: 2021-10-31

Committee Draft ballot (if any): 2022-01-31

DIS submission*: 2022-05-31

Publication*: 2023-05-31

*Target Dates on DIS submission and Publication should preferably be set a few weeks ahead of the limit dates (automatically given by the selected SDT).
For guidance and support on project management; descriptions of the key milestones; and to help you define your project plan and select the appropriate development track, see:
go.iso.org/projectmanagement
NOTE: The draft project plan is later used to create a detailed project plan, when the project is approved.

Known patented items (see ISO/IEC Directives, Part 1 for important guidance)

☐ Yes ☒ No

If "Yes", provide full information as annex

Co-ordination of work: To the best of your knowledge, has this or a similar proposal been submitted to another standards development organization?

☐ Yes ☒ No

If “Yes”, please specify which one(s):

A statement from the proposer as to how the proposed work may relate to or impact on existing work, especially existing ISO and IEC deliverables.
The proposer should explain how the work differs from apparently similar work, or explain how duplication and conflict will be minimized.

The proposed new work item relates to several areas concerning environmental aspects, but mainly textile.

A listing of relevant existing documents at the international, regional and national levels

non

Please fill out the relevant parts of the table below to identify relevant affected stakeholder categories and how they will each benefit from or be impacted by the proposed deliverable(s).

	Benefits/impacts	Examples of organizations / companies to be contacted
Industry and commerce large industry	All of the categories below may benefit from this document, and future work related to environmental aspects in textiles, as they are all parts of the value chain. A commonly understood terminology enables increased transparency and may act as a needed foundation for further work towards sustainability.	
Industry and commerce SMEs		

Government		
Consumers		
Labour		
Academic and research bodies		
Standards application businesses		
Non-governmental organizations		
Other (please specify)		

Liaisons:

A listing of relevant external international organizations or internal parties (other ISO and/or IEC committees) to be engaged as liaisons in the development of the deliverable(s).

non

Joint/parallel work:

Possible joint/parallel work with:

☐ IEC (please specify committee ID)

☐ CEN (please specify committee ID)

☐ Other (please specify)

A listing of relevant countries which are not already P-members of the committee.

non

Note: The committee manager shall distribute this NP to the ISO members of the countries listed above to ask if they wish to participate in this work

Proposed Project Leader (name and e-mail address)

Sandra Roos
sandra.roos@ri.se

Name of the Proposer
(include contact information)

Laura Linnala, Swedish institute for standards
laura.linnala@sis.se +468 555 521 18

This proposal will be developed by:

☐ An existing Working Group:

☒ A new Working Group: (title: TC38 WG35 Environmental aspects)

(Note: establishment of a new WG must be approved by committee resolution)

☐ The TC/SC directly

☐ To be determined:

Supplementary information relating to the proposal

☒ This proposal relates to a new ISO document

☐ This proposal relates to the adoption as an active project of an item currently registered as a Preliminary Work Item

☐ This proposal relates to the re-establishment of a cancelled project as an active project

Other:

Maintenance agencies (MA) and registration authorities (RA)

☐ This proposal requires the service of a maintenance agency. If yes, please identify the potential candidate:

☐ This proposal requires the service of a registration authority. If yes, please identify the potential candidate:

NOTE: Selection and appointment of the MA or RA is subject to the procedure outlined in the ISO/IEC Directives, Annex G and Annex H, and the RA policy in the ISO Supplement, Annex SN.

☒ Annex(es) are included with this proposal (give details)

NP Draft Textiles - Environmental aspects - vocabulary

Additional information/question(s)

This proposal was presented in the plenary meeting of ISO/TC38 in Toreviso, on October 18, 2019.

ISO #####-#:####(X)

ISO TC 38/WG #

Secretariat: SIS

Textiles – Environmental aspects – Vocabulary

PWI stage

Warning for WDs and CDs

This document is not an ISO International Standard. It is distributed for review and comment. It is subject to change without notice and may not be referred to as an International Standard.

Recipients of this draft are invited to submit, with their comments, notification of any relevant patent rights of which they are aware and to provide supporting documentation.

To help you, this guide on writing standards was produced by the ISO/TMB and is available at https://www.iso.org/iso/how-to-write-standards.pdf

A model manuscript of a draft International Standard (known as "The Rice Model") is available at https://www.iso.org/iso/model_document-rice_model.pdf

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Published in Switzerland

Contents

Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular, the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see www.iso.org/patents).

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

For an explanation of the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT), see www.iso.org/iso/foreword.html.

This document was prepared by Technical Committee ISO/TC 38, *Textiles*, Subcommittee SC ##, *[name of subcommittee]*.

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at www.iso.org/members.html.

Introduction

To date, the terminology regarding environmental aspects used in the textile industry has not been standardized, causing confusion, ineffectiveness and worst case hindering sustainable practices in the textile sector. The global nature of the textile industry highlights the need for global as well as national standards, enabling a common understanding and facilitate trade. A common vocabulary may serve to reduce the risk of greenwashing, bringing value for actors aiming to be transparent as well as facilitating the development of trust among consumers.

This document contains definitions of terms widely used in the textile value chain in reference to environmental aspects. ISO Guide 82 *Guidelines for addressing sustainability in standards* has been taken into consideration when addressing sustainability in this document.

The list of terms is wide but not exhaustive.

Textiles — Environmental aspects — Terminology

1 Scope

This document provides general terms and definitions used in the textile value chain related to environmental aspects including design, production, retail, use and reuse, recycling processes and disposal.

This document is applicable to all stakeholders in the textile value chain regardless of size and location. Stakeholders will benefit from a common terminology for addressing issues related to environmental aspects of textile products and processes.

This document will not specify sustainability (social, environmental or economic) in general. Definitions are as far as possible adapted from existing standards but when the intention or definition is unclear additional context or definitions are updated or added.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO #####-#, *General title — Part #: Title of part*

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

— ISO Online browsing platform: available at https://www.iso.org/obp

— IEC Electropedia: available at http://www.electropedia.org/

3.1
automated sorting
sorting process using computational technologies

Note 1 to entry: Technologies may be, but are not restricted to, FTIR, NIR, RFID, QR etc.

3.2
bio-based
derived from biomass

Note 1 to entry: Biomass can have undergone physical, chemical or biological treatment(s).

Note 2 to entry: The correct spelling of “bio-based” is with a hyphen (-). It is however in common usage sometimes spelt without a hyphen.

[SOURCE: EN 17228:2019, 3.1]

3.3
bio-based content
fraction of a product that is derived from biomass

Note 1 to entry: Normally expressed as a percentage of the total mass of the product.

Note 2 to entry: For the methodology to determine the bio-based content, see FprCEN/TR 16721.

[SOURCE: EN 16575:2014, 2.4]

3.4
biodegradable material
material capable of being broken down by microorganisms

[SOURCE: ISO 6707-1:2017, 3.4.1.5]

3.5
biomass
material of biological origin, excluding material embedded in geological formations or transformed to fossilized material and excluding peat

Note 1 to entry: This includes organic material (both living and dead) from above and below ground, e.g. trees, crops, grasses, tree litter, algae, animals and waste of biological origin, e.g. manure.

[SOURCE: EN ISO 14021:2017, 3.1.1]

3.6
by-product
co-product from a process that is incidental or not intentionally produced and which cannot be avoided

Note 1 to entry: Waste is not a by-product.

[SOURCE: ISO 21930:2017, 3.4.7]

3.7
carbon footprint
CF
net amount of GHG emissions and GHG removals, expressed in CO_2 equivalents

[SOURCE: ISO 16759:2013, 3.1.1]

3.8
cascading materials
cascading recycling
refers to when a material is sequentially recycled into another type of product after its end of life. The term includes downcycling in which a material is converted into materials of lower quality and reduced functionality

Note 1 to entry: cascade recycling may also be refereed to as open loop recycling.

[SOURCE: IVL Renewable materials in the Circular Economy:2018, modified – Note 1 added]

3.9
chemical content
content of textile relevant restricted chemicals

Note 1 to entry: See AFIRM RSL for relevant list of restricted substances.

3.10
chemical recycling process
process using chemical dissolution or chemical reactions which is employed in polymer or monomer recycling

3.11
classification
categorization of material qualities in each relevant part of the value chain

3.12
closed-loop
closed-loop recycling
process in which textile fibre is used in the same type of application

3.13
collection
point in a product life cycle when a material is collected for sorting for further reuse and/or recycling

3.14
collector
actors involved in separate collection of textiles

3.15
compostability
textile compostability
ability of a textile material to be biodegraded in a defined and controlled composting process within a set time

Note 1 to entry: compostability refers to both aerobic and anaerobic digestion.

[SOURCE: CEN/TC 248 N 2338 *Plastics - Environmental aspects - Vocabulary* WI00249A29, 3.68, modified – textile added, original Note 1 deleted and new Note 1 added.]

3.16
contaminated textile
textile material containing unwanted substances not deliberately added

3.17
cradle-to-gate
assessment of resource or environmental burdens involved in a manufacturing stage of a material or product life cycle, where activities include, but are not limited to; resource extraction, transportation, processing and fabrication

Note 1 to entry: The cradle-to-grave assessment is based on the Life Cycle Analysis defined in ISO 14040:2006.

3.18
cradle-to-grave
assessment of resource or environmental burdens involved in a material or product entire life cycle, which may be connected to, but are not limited to; resource extraction, processing, fabrication, transportation, retail, usage and end-of-life alternative (repair, reuse, recycle, final disposal)

Note 1 to entry: The cradle-to-grave assessment is based on the Life Cycle Analysis defined in ISO 14040:2006.

3.19
degradation
deterioration which results from irreversible chemical and physical processes caused by one or more environmental factors and which proceed over a period of time comprising one or more steps leafing to loss of properties e.g. mechanical strength

[SOURCE: CEN/TC 248 N 2338 *Plastics - Environmental aspects - Vocabulary* WI00249A29, 3.81]

3.20
depolymerization
chemical process that is the reverse of polymerization, yielding monomeric and/or oligomeric moleculed that can be recombined into new polymers

[SOURCE: CEN/TC 248 N 2338 *Plastics - Environmental aspects - Vocabulary* WI00249A29, 3.91]

3.21
dilution effect
effect of chemical content in individual textile versus batch of textiles

3.22
disassembly
process of separating a product into its different parts

[SOURCE: CEN/TC 248 N 2338 *Plastics - Environmental aspects - Vocabulary* WI00249A29, 3.97]

3.23
discard
discarded
act of throwing away textiles no longer useful or required by its owner

3.24
dissolving pulp
cellulose based pulp used in production of regenerated cellulose fibres such as lyocell and viscose

3.25
downcycling
production of recycled material that is of lower economic value or quality than the original product

3.26
durability
ability of a textile product to perform its required function during an intended service life

3.27
eco design
integration of environmental aspects into product design and development, with the aim of reducing adverse environmental impacts throughout a product's life cycle

Note 1 to entry: Other terminology used worldwide includes Environmentally Conscious Design (ECD), Design For Environment (DFE), green design and environmentally sustainable design.

[SOURCE: ISO 14006:2011, 3.2]

3.28
end-of-life
life cycle stage of a product when a proper waste management is applied for discarded end-user products

Note 1 to entry: For plastics waste recycling and recovery, see ISO 11469 and ISO 15270.

[SOURCE: ISO 17422:2018, 3.11, modified — Note 1 to entry changed, reference to Annex A removed.]

3.29
environmental aspect
elements of product value chain that can interact with the environment

[SOURCE: ISO 14001:2015, 3.17]

3.30
environmental impact
any change to the environment, whether adverse or beneficial, wholly or partially resulting from the product value chain

[SOURCE: ISO 14001:2015, 3.18]

3.31
extended producer responsibility
EPR
policy approach under which producers are given a significant responsibility – financial and/or physical – for the treatment or disposal of post-consumer products

Note 1 to entry: A scheme is defined in point 3, Article 8 of Directive 2008/98/EC.

[SOURCE: OECD]

3.32
fabric recycling
system for retaining the woven or nonwoven structure of used fabric for use in a new garment or other application

3.33
feedstock
general term for raw material for a process

3.34
feedstock recycling
see chemical recycling process (3.10) and mechanical recycling (3.46/3.47)

3.35
fibre composition
blend of material content on fibre level.

Note 1 to entry: The ratio of fibre to fibre is expressed by weight percentage.

3.36
fibre recycling
system for dissembling used fabric, extracting fibres and incorporating them into a new garment or other application

3.37
final disposal
definitive deposit of waste by incineration or, if needed, landfill

3.38
fraction
textile fibre fraction
textile materials sorted by defined criteria, intended for recycling

Note 1 to entry: A fraction can be used as feedstock in a recycling process.

3.39
incineration
controlled burning of waste products or other combustible materials in an incinerator or similar apparatus

[SOURCE: ISO 16165:2013, 2.11.1]

3.40
industrial composting
industrial aerobic process designed and optimized to produce compost

[SOURCE: CEN/TC 248 N 2338 *Plastics - Environmental aspects - Vocabulary* WI00249A29, 3.137]

3.41
landfill
waste disposal site for the deposit of waste on to or into land under controlled or regulated conditions

[SOURCE: ISO 15270:2008, 3.18]

3.42
life cycle
consecutive and interlinked stages of a product system, from raw material acquisition or generation from natural resources to final disposal

[SOURCE: ISO 14040:2006, 3.1]

3.43
life cycle assessment
LCA
compilation and evaluation of the inputs, outputs and the potential environmental impacts of a product system throughout its life cycle

[SOURCE: ISO 14040:2006, 3.2]

3.44
manual sorting
sorting process conducted by hand, using ocular inspection

3.45
material recovery
material processing operations as part of fabric, fibre or polymer recycling but excluding energy recovery, pyrolysis and aerobic/anaerobic digestion

3.46
mechanical recycling process
process, used in a recycling system, based on physical forces, which may be used in isolation for fabric or fibre recycling or as pre-processing for thermal or chemical recycling processes

3.47
microplastics
material consisting of a solid polymer containing particles, to which additives or other substances may have been added, and where ≥ 1 % w/w particles have: (i) all sizes 1 nm ≤ x ≤ 5 mm, (ii) for fibres, a length of 3 nm ≤ x ≤ 15 mm and a length/diameter ratio >3. Naturally occurring polymers that have not been chemically modified (excluding hydrolysis) are excluded, as are (bio)degradable polymers

[SOURCE: ECHA - ANNEX XV Restriction Report - Microplastics, 11 January 2019]

3.48
mixed fibre fabric
fabric composed of more than one fibre type

3.49
monomer
molecule that can undergo polymerization, monomers that are joined together chemically through covalent bonds form a large molecule or a polymer

[SOURCE: CEN/TC 248 N 2338 *Plastics - Environmental aspects - Vocabulary* WI00249A29, 3.171]

3.50
monomer recycling
system for dissembling polymeric textile materials into their constituent monomers and rebuilding polymeric fibres for new uses

3.51
natural fibre
fibre which occurs in nature: it can be categorized according to its origin into animal, vegetable and mineral fibre

[SOURCE: ISO/TR 11827:2012, 4.1]

3.52
natural polymer
polymer obtained from biomass, in which the polymer retains the original chemical structure and composition present in biomass (i.e. starch, cellulose, lignin or lignocellulose)

[SOURCE: ISO 16620-1:2015, 3.1.7]

3.53
open-loop recycling
recycling materials transferred into another material category or application

3.54
organic material
material containing carbon

3.55
original
unsorted collected textile at collection point

3.56
polymer recycling
system for dissembling used fibres, extracting polymers and re-spinning them for new uses

3.57
polymerization
process of converting a monomer or a mixture of monomers into a polymer

[SOURCE: ISO 1382:2012, 2.342]

3.58
post-consumer textile
descriptive term covering material, generated by the end-users of products, that has fulfilled its intended purpose or can no longer be used

3.59
post-industrial scrap
left-overs generated during manufacturing operations

3.60
pre-consumer textile
descriptive term covering product and/or component diverted during a manufacturing process

3.61
pyrolysis
chemical decomposition of organic materials through the application of heat in the absence of oxygen

[SOURCE: Encyclopedia Britannica, modified: absence of oxygen added]

3.62
reclaimed
recovered
material that would have otherwise been disposed of as waste or used for energy recovery but has instead been collected and reclaimed (recovered) as a material input, in lieu of new primary material, for a recycling or reuse process.

NOTE 1 For the purposes of this International Standard, the expressions “recovered material” and “reclaimed material” are treated as synonyms; however, it is recognized that, in some countries, one or other of these expressions may be preferred for this application

[SOURCE: ISO 14021: 2017, 7.8.1.1 c), modified: Note 1 removed, Note 2 remunbered, reuse added]

3.63
recyclable
recyclability
material suitable for chemical, mechanical and/or thermo mechanical recycling

3.64
recycled content
material derived partially or totally from recycled sources

3.65
recycled fibre
non-virgin fibre

3.66
recycled raw material
secondary material that is used to produce a product

Note 1 to entry: See ISO 14044:2006 for def of raw material.

3.67
recyclers
actors performing recycling operations

3.68
recycling
action of reprocessing a material or component which has previously been processed for inclusion in a product

Note 1 to entry: The process may be chemical, mechanical, thermal/thermo mechanical.

[SOURCE: ISO 8887-1:2017, 3.1.6., modified - Note 1 to entry has been added.]

3.69
recycling rate
proportion of materials recycled by any operation by which waste materials are reprocessed into products, materials or substances whether for the original or other purposes, calculated as a percentage of the total waste generated

Note 1 to entry: There are two broad concepts for doing this, either the weight of the material that leaves the sorting plant or enter the recycling plant is calculated, or the weight of material that is successfully processed is calculated.

[SOURCE: CEN/TC 248 N 2338 Plastics - Environmental aspects - Vocabulary WI00249A29, 3.220]

3.70
regenerated fibres
DEPRECATED: man-made fibre
fibres produced from naturally occurring polymers of cellulose or protein, where processing by dissolution is needed to convert them into fibre form

3.71
remanufacture
industrial process used to redesign a textile product for further use

3.72
remake
redesign
used, or unsold textile products, which are remade into new products

3.73
re-spinning
process of spinning recycled fibre into yarn

3.74
reuse
utilizing already used textile products, where no processing is required except laundry

3.75
rPET
recycled PET quality

3.76
shredding
mechanical process of dismantling / synonym fabric to smaller pieces in preparation for further processing

3.77
sorting
sorting facility
sorting textile materials for reuse, recycling and/or remake. Sorting may be carried out in sorting facilities and/or in-store

3.78
synthetic fibre
DEPRECATED: man-made fibre

manufactured fibre made from synthetic polymers (macromolecular material which has been chemically synthesised)

[SOURCE: ISO/TR 11827:2012, 4.2.2]

3.79
textile
textile materials
woven fabric, knitted fabric, etc., formed by the interlocking of fibres and yarns having a certain cohesion and which is generally intended for clothing or furniture applications

Note 1 to entry: Textiles often include certain types of non-woven fabrics.

[SOURCE: ISO 16373-3:2014, 2.1]

3.80
textile product
products in unworked, semi-worked, processed, semi-processed, refined, semi-finished or made-up condition consisting exclusively of textile fibres, whatever the method used for their mixing or composition

[SOURCE: Regulation (EU) No 1007/2011 of the European Parliament and of the Council of 27 September 2011]

3.81
textile tearing
mechanical process of exposing textile fibre from a fabric in preparation for further processing

3.82
textile waste
discarded textiles not recycled or reused

3.83
thermal recovery
combustion process for extracting the fuel value of textile waste and deliver heat to another process

3.84
thermo-mechanical recycling process
process used in a recycling system that melts a polymer, typically employed to permit polymer recycling

3.85
upcycling
production of recycled material that is of higher economic value or quality than the original product

3.86
virgin raw material
material that has not been subjected to use or processing other than that required for its initial manufacture

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[4] ISO 21930:2017, *Sustainability in buildings and civil engineering works - Core rules for environmental product declarations of construction products and services*

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[6] CEN/TC 248 N 2338 *Plastics - Environmental aspects - Vocabulary*

[7] ISO 14006:2011, *Environmental management systems - Guidelines for incorporating ecodesign*

[8] ISO 17422:2018, *Plastics - Environmental aspects - General guidelines for their inclusion in standards*

[9] ISO 16165:2013, *Ships and marine technology - Marine environment protection - Terminology relating to oil spill response*

[10] ISO 15270:2008, *Plastics - Guidelines for the recovery and recycling of plastics waste*

[11] ISO 14040:2006, *Environmental management - Life cycle assessment - Principles and framework*

[12] ECHA - ANNEX XV Restriction Report - Microplastics, 11 January 2019

[13] ISO 16620-1:2015, *Plastics - Biobased content - Part 1: General principles*

[14] ISO 1382:2012, *Rubber - Vocabulary*

[15] ISO 8887-1:2017, *Technical product documentation - Design for manufacturing, assembling, disassembling and end-of-life processing - Part 1: General concepts and requirements*

[16] ISO 16373-3:2014, *Textiles - Dyestuffs - Part 3: Method for determination of certain carcinogenic dyestuffs (method using triethylamine/methanol)*

[17] Regulation (EU) No 1007/2011 of the European Parliament and of the Council of 27 September 2011

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[19] ISO/TR 11827:2012, *Textiles — Composition testing — Identification of fibres*

[20] IVL Swedish Environmental Research Institute Ltd., Report C296 Renewable materials in the Circular Economy:2018

[21] ISO 14001:2015, *Environmental management systems - Requirements with guidance for use*

[22] OECD, http://www.oecd.org/env/tools-evaluation/extendedproducerresponsibility.htm

ISO/TC 38 N 3876

ISO/TC 38
Textiles

Email of secretary: tc38secretariat@gmail.com
Secretariat: JISC (Japan)

CIB voting request on the approval of new WG35 Environmental aspects

Document type:	Other committee ballot
Date of document:	2020-04-01
Expected action:	VOTE
Action due date:	2020-06-24
No. of pages:	8
Background:	This is to request you for the approval of new working group TC38/WG35 Environmental aspects as conjunction with the NP 5157 Textiles - Environmental aspects - Vocabulary under voring by TC38 N 3874, if this NP 5157 is approved.
Committee URL:	https://isotc.iso.org/livelink/livelink/open/tc38

Document: ISO/TC 38 N 3876

Secretariat of ISO/TC 38 "Textiles"

Our ref: ISO/TC 38
Date: April 1, 2020

To: P-, O- & L-members of ISO/TC 38

Dear Sirs or Madams,

CIB voting request on a new working group TC38 WG35 with the title of 'Environmental Aspects'

This is to request you that the approval of a new working group TC38/WG35 as follows,

Purpose: This new WG is proposed for development of NP 5157 *Textiles – Environmental Aspects – Vocabulary* that is proposed by TC38 N3874, if NP 5157 is approved.

Title of WG35: Environmental aspects

Convenor: Dr. Sandra ROOS as CV is attached.

Questionnaires:
1) Do you approve a New TC38/WG35 with the proposed title "Environmental aspects", if the NP 5157proposed by TC38/N3874 is approved?
2) If yes on 1), do you approve a convenor of Dr. Sandra ROOS and SIS as a secretary support team?
3) Call for the experts. If you desire to work in TC38/WG25, please fill the name and email address in the comment sheet.

Please vote by using TC38 balloting portal by June 24.

Yours sincerely,

Hisashi TAZAWA
Committee manager to ISO/TC 38
tazawa@sengikyo.or.jp

Europass Curriculum Vitae

Personal information

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Title	PhD
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Telephone(s)	+46 (0)31-706 61 17 Mobile +46 (0)707-80 61 17
E-mail	sandra.roos@ri.se
Date of birth	1977-11-02
Nationality	Swedish Gender Female

Work experience

2008-	**Researcher, RISE IVF AB, Mölndal.** Researcher in the field of environmental assessment of textile with special focus on life cycle assessment (LCA) and chemicals in products. Manager for Kemikaliegruppen (the Swedish Chemicals Group at RISE) giving daily support to the over 120 textile member companies to avoid unwanted substances in their products. Example projects are described below and include public funded research (Sandra was leader of the Supply Chain Theme in the cross-disciplinary research programme Mistra Future Fashion developing sustainability strategies for the Swedish fashion industry as well as research leader of the Mistra Innovation-funded project TexBar – Sustainable Textile Barriers) industry commissions (Sandra is commissioned by SAC to include a quantitative LCA-based assessment of chemicals into the Higg Index) and commissions by authorities such as the Swedish Environmental Agency (NV), the Swedish Chemicals Agency (KemI) and the Nordic Council of Ministers. Sandra has also been moderator of the PCR committee developing Product Category Rules (PCR) for enabling Environmental Product Declarations (EPDs) on garment level.
2008	**Systems Attribute Engineer**, Volvo. Responsible for the attribute Environment (Recycling, Materials of Concern and Clean Compartment). The Systems Attribute Engineer lead the work with eco-design in the projects and the development of requirements and measurement methods. Work involved supply chain reporting in the IMDS information system, securing the absence of unwanted substances and promoting the use of recycled materials in the cars.
2003-2007	**Research engineer, Chalmers University of Technology, Göteborg.** Project manager within CPM (current Swedish Life Cycle Centre) for cross-disciplinary research projects with participants from academy and industry. Development and implementation of information systems for environmental management and analysis such as life cycle assessment (LCA), design for environment (DfE) and environmental management systems (EMS).

Education and training

2012-2017	Chalmers University of Technology, Göteborg. PhD in Environmental Systems Analysis. Doctoral Thesis: Advancing life cycle assessment of textile products to include textile chemicals. Inventory data and toxicity impact assessment. Licentiate engineer in Chemical Environmental Science. Licentiate thesis: "Towards Sustainable Use of Chemicals in the Textile Industry: How life cycle assessment can contribute".
2016	Medienätverket. Medieträning för deltagarna i Mistra Innovation. April 2016 med Claes Johnsson.
2016	Chalmers University of Technology. FENM010 - Environmental and energy systems analysis: roots and branches. 7.5p.
2013	Gothenburg University. Fundamentals of Ecotoxicology. 7.5p.
2013	Borås University, School of Textiles. Textil översiktskurs (TÖV). 7.5p

2012	Gothenburg University. Environmental Governance and Development: Gender, Climate Change and Conflict. 2.5p.
1997-2002	Chalmers University of Technology, Göteborg. Master in Chemical engineering, majoring in material technology. Thesis work at SKF Sverige AB, ”LCA based solution selection”.
2011	Miljögiraff. Sima Pro, advanced modelling, 1 day.
2009	Wenell. “Arbeta i projekt”, project work and management, 2 days.
2006	Astrakan Strategisk Utbildning AB. ”Praktisk Projektledning”, project management, 2 days.
2005	Göteborgs Universitet. ”Italienska 10 p”, Italian language studies, one semester half-time.
2005	Chalmers Tekniska Högskola. ”Positiv kommunikation och påverkan”, communication, 2 days.
2004	Astrakan Strategisk Utbildning AB. ”Modellering och modelleringsledning”, concept modeling, 2 days.
2000	Università degli Studi di Genova. Courses in Philosophy and History in Italian, one semester, Genova, Italy.
1999	State University of New York. Courses in Art history, Biology and Psychology in English, one semester, New York, USA

Additional information

Personal information	Married and have two sons, Jonathan, born 2007 and David, born 2010. Maiden name Häggström. Multiple Swedish champion in field hockey 1995-2009, coach for the junior ladies' team 2003-2006, board member of Valhalla Landhockeyklubb 2004-2006.
Contribution to the scientific and professional community	Invited reviewer for “Environmental Science and Technology”, “Resources, Conservation & Recycling”, “Journal of Fashion Marketing and Management”, “Journal of Cleaner Production”, “Integrated Environmental Assessment and Management” and “Sustainability”. Moderator of the PCR committee developing Product Category Rules (PCR) for Trousers, shorts and slacks and similar garments; Jackets, coats and other similar outdoor garments; Sweaters, jerseys, pullovers, cardigans, fleeces and similar garments; and T-shirts, tops, singlets and other vests under the International EPD® System (https://www.environdec.com/). Participant in the Textile & Fashion 2030 platform, the Swedish national platform for sustainable textiles. Invited member of the Ecotoxicity Task Force under the UNEP-SETAC Life Cycle Initiative. Jury member for the “Habit Sustainability Award” at the Habit fashion gala 2015 and 2016. Habit is the leading trade magazine for the Swedish fashion industry and 2015 was the first year for the Sustainability Award at the Habit fashion gala. Sandra is regularly interviewed in TV, radio as well as newspapers on the topic of sustainable textiles. Recent examples: https://www.extrakt.se/att-anvanda-plagg-manga-ganger-ar-det-basta-du-kan-gora-for-miljon/ https://www.svt.se/nyheter/vetenskap/vilka-klader-ar-mest-miljovanliga https://sverigesradio.se/sida/avsnitt/1364657?programid=3345

Examples of projects

Swedish Chemicals Group, 2005 - continuous
Participant since 2008, project leader since 2015. Around 140 member companies from the textiles and electronics industry, whose member fees amounts to a yearly budget of +5 MSEK, and growing. Members get support to avoid occurrence of unwanted chemicals in their products via a selection of tools, networking and direct support.

LCA Chemicals Data for Higg, 2019-2020
Funded by the Sustainable Apparel Coalition (SAC), the main environmental organization for the fashion industry connecting the biggest brands (Adidas, Nike, H&M, VF, Walmart etc.), budget 0.5 MSEK. SAC's main ambition has been to develop the Higg Index, a tool to produce a score that will be visible for consumers in all the member brand's products. The Higg tools include today a qualitative chemistry assessment only. It has been the wish of the SAC to add a more quantitative method once a more reliable method was available. The method developed in Roos (2016) has been accepted by the members as a reliable method for quantitative chemistry assessment, and will now be implemented in the Higg Index.

TexBar – Sustainable Textile Barriers, 2015-2019
Funded by Mistra Innovation and the industry, budget 8 MSEK. Main applicant and research leader (project leadership from industry). Research to support six participating companies to perform sustainable innovations in the area of water proofness and water repellency of textiles.

Mistra Future Fashion, 2011-2019
Funded by Mistra and the industry, budget 110 MSEK. Participant since 2011, one of four team leaders since 2015. To date the largest research project on sustainable fashion, with a cross-disciplinary team of researchers in collaboration with the industry.

Awards

Award for "Most downloaded publication in Chalmers Publication Library (CPL)" 2016/2017.

Supervision of students

2019-2020	Maren Duprés, Endocrine disrupting chemicals in cotton lingerie - Assessing the influence of endocrine disrupting chemicals in cotton lingerie on women's fecundity. University of Applied Sciences - Hochschule Niederrhein, Mönchengladbach, Germany
2019	Rebecka Kloth and Clara Wickman, Environmental impact of textile barriers - A comparative study of coated and laminated textile. Degree of Bachelor of Science. Examined 2019 from the Swedish School of Textiles, Borås, Sweden. Awarded TEKO's prize for best thesis 2019.
2019	Linn Carlsson and Louise Melin, Mikroplast - En studie om textilföretags kommunikation och hantering av mikroplast. [Microplastics- A study regarding the communication and management of microplastics.] Degree of Bachelor of Science. Thesis number: 2019.12.08. Examined 2019 from the Swedish School of Textiles, Borås, Sweden.
2018	Maria Eriksson Andin, Microplastic polyester fiber as a source and vector of toxic substances: Risk assessment and evaluation of toxicity. Degree of Bachelor of Science. Examined 2018 from Gothenburg University, Sweden.
2017	Jonna Häggblom, Unfinished Stories. Degree of Master of Arts. Examined 2017 from ESMOD Berlin MA program Sustainability in Fashion, Germany.
2016	Cecilia Johannesson, Emerging Textile Production Technologies Sustainability and feasibility assessment and process LCA of supercritical CO2 dyeing. Examined 2016 from Chalmers University of Technology. Sweden

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