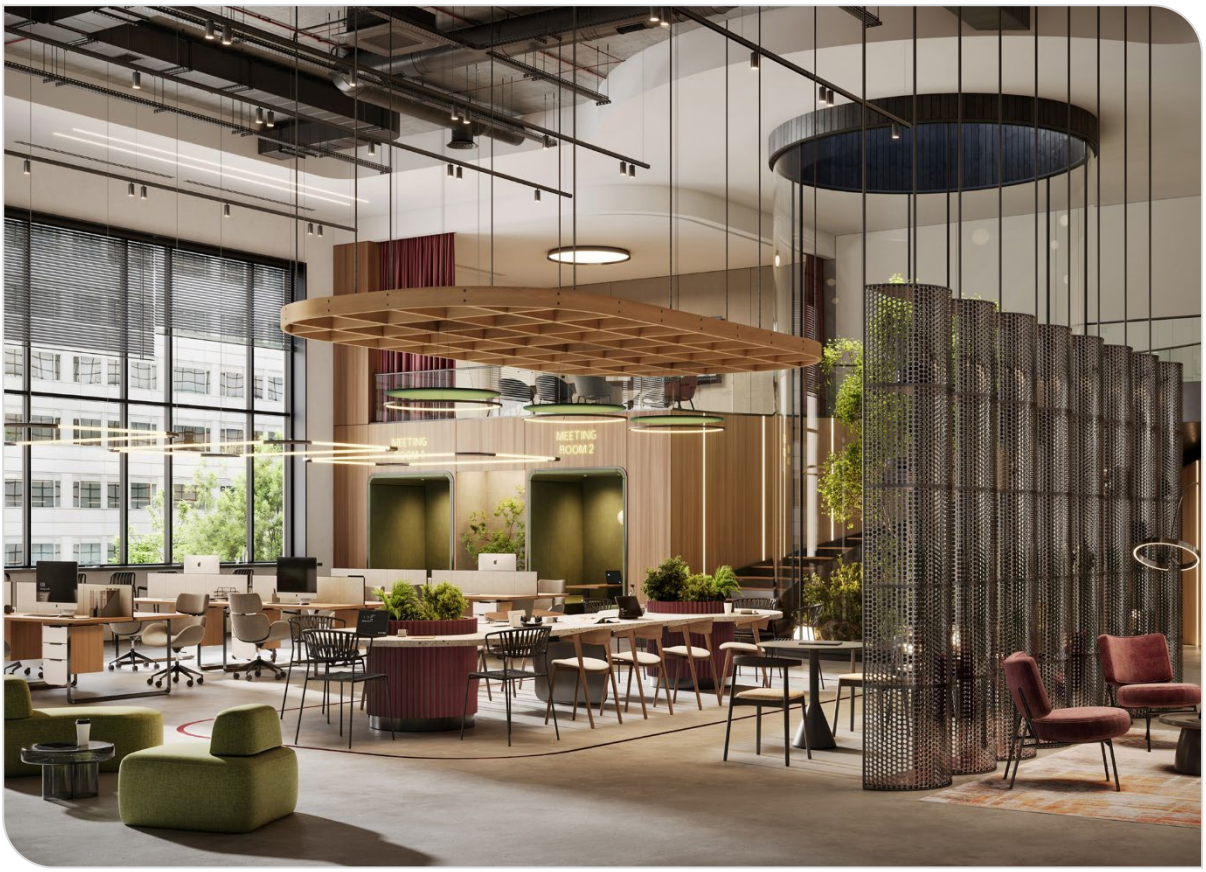
Nordic Ecolabelling for

Furniture and fitments



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Nordic Ecolabelling

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Contact information

In 1989, the Nordic Council of Ministers decided to introduce a voluntary official ecolabel, the Nordic Swan Ecolabel. These organisations/companies operate the Nordic Ecolabelling system on behalf of their own country's government. For more information, see the websites:

Denmark

Ecolabelling Denmark

www.svanemaerket.dk

Iceland

Ecolabelling Iceland

www.svanurinn.is

Finland

Ecolabelling Finland

https://joutsenmerkki.fi/

Norway

Ecolabelling Norway

www.svanemerket.no

Sweden

Ecolabelling Sweden

www.svanen.se

1 Environmental communication guideline for Nordic Swan Ecolabel furniture and fitments

Nordic Swan Ecolabel furniture and fitments have reduced environmental and climate impact throughout their life cycle. They meet strict requirements for raw materials and promote the use of renewable and recycled materials.

To minimise the product's impact on health, strict requirements are set on chemicals used in the production and on emissions related to the indoor environment. Furthermore, requirements for quality, dismantling, maintenance, repair or spare parts as well as warranty promote a long lifespan and a circular economy.

A Nordic Swan Ecolabelled furniture or fitment:

- Has a circular design that promotes repair, recycling and use of renewable and/or recycled materials.
- Has a long lifespan. This is documented through tests of strength, durability and safety.
- Meet requirements for maximum energy use in the production of wood-based panels.
- Consists of traceable and legally harvested wood. At least 70% of the wood is sourced from certified forestry.
- Meets strict requirements for chemicals. For example, halogenated flame retardants, PFAS and antibacterial agents are not allowed.
- Meets strict requirements for emissions of formaldehyde and volatile organic compounds (VOC) to ensure a healthy indoor environment.

2 What can carry the Nordic Swan Ecolabel?

The product group include domestic furniture and contract furniture items for use in domestic or non-domestic environments. Furniture must fall into one of the following categories below:

- Furniture and fitments regulated and complying with requirement O4 such as table/desk furniture, seating furniture, sleeping furniture, storage furniture, Kitchen- and bathroom furniture, lounge furniture/mattresses, screen and partition walls, writing boards and mobile furniture ensembles and enclosures units/office pods.
- Doors and door frames for indoor use
- Sound absorption screens designed to be freestanding or mounted on tabletops
- Bathroom furniture with integrated countertop/sink

The following individual fitting:

- Countertops
- Fronts (doors and drawer fronts) for kitchens, bath and wardrobes
- Kitchen cabinets

A maximum of 5% by weight of the furniture/product may consist of materials that do not have requirements in the criteria.

Applications may also be made for product systems, e.g. kitchen and wardrobe solutions of which there are numerous variations.

To market the product as a Nordic Swan Ecolabelled kitchen, the license must include all necessary parts to assemble a finished kitchen such as cabinets, mouldings, at least one front (for cabinets or drawers) and at least one worktop.

Relevant products in addition to those specified above may be included in the product group upon request if they can be considered to be furniture/fitment products. This applies only to products made of materials for which requirements are imposed in the criteria. Nordic Ecolabelling will determine which new products may be included in the product group.

What cannot be Nordic Swan Ecolabelled

Products not primarily intended for use as furniture/fitments cannot be Nordic Swan Ecolabelled. The following are examples of products that cannot be Nordic Swan Ecolabelled under the criteria for furniture:

- Building products (e.g. walls, stairs, mouldings, windows, floors, construction panels). So-called demountable walls and/or fixed walls that can, for example, divide a room in two, where the function is equivalent to a wall, cannot be Nordic Swan Ecolabelled.
- Acoustic ceiling- and wall panels, either part of the ceiling or wall construction or which is mounted directly on ceiling or walls. This type of acoustic panels can be labelled according to criteria for 010 Panels and mouldings for interior use*.
- Sanitary ware, such as toilets, shower cabins, bathtubs and washbasins
- Lamps
- Bathroom accessories, such as soap dispensers, paper towel holders, towel racks, toilet paper holders and similar
- Office supplies
- Furniture intended for outdoor use
- Carpets, cushions/pillows** and textiles
- Toys (products that fall within the scope of the Directive 2009/48/EC on the safety of toys)
- Mirror glass that is not part of another piece of furniture/fitment
- Aids, such as raised toilet seats, armrests, backrests and similar
- Interior items, such as picture frames, candlesticks and hooks

** See https://www.nordic-swan-ecolabel.org/criteria/ Separate criteria also exist for: Carpets, floors, office supply, outdoor furniture panels and mouldings for interior use, windows, textiles and toys.*

*** Decorative cushions/pillows and pillows for sleeping must be labelled in accordance with the criteria for Nordic Ecolabelling of textiles. Other types of pillows/cushions that are a part of an overall furniture license, for example part of a sofa, can be ecolabelled under the criteria for furniture and fitments.*

3 How to read this criteria document

Each requirement is marked with the letter O (obligatory requirement) and a number. All requirements must be fulfilled to be awarded a licence.

The text describes how the applicant shall demonstrate fulfilment of each requirement. There are also icons in the text to make this clearer. These icons are:

- Upload
- Requirement checked on site

All information submitted to Nordic Ecolabelling is treated confidentially. Suppliers can send documentation directly to Nordic Ecolabelling, and this will also be treated confidentially.

4 Requirements and justification of these

This section presents requirements and requirements for documentation of requirements. The appendices referred to in the requirements can be found at the end of the criteria document. Background to the requirements, the chosen requirement levels, and any changes since generation 5 is described in the background document.

Definitions

Terms and definitions used in this document.

Abbreviation and terms	Explanation
ADt	Air dry tonne (ADt) is dry solid content of pulp and paper. ADt for pulp is 90%, while ADt for paper means a solid content of 94%.
COD	Chemical oxygen demand. A measurement of the quantity of oxygen that is consumed during the chemical breakdown of organic material.
Domestic furniture	Furniture made for household or personal use.
Furniture ensembles and enclosures	Self-contained, mobile and soundproof. Example of enclosures are mobile working booth/-phone booth or -office pod.
Ingoing substances in chemical products	All substances in the chemical product, including additives (e.g. preservatives and stabilisers) in the raw materials. Substances known to be released from ingoing substances (e.g. formaldehyde, arylamine, in-situ generated preservatives) are also considered as ingoing substances.
Impurities in chemical products	Residuals, pollutants, contaminants etc. from production, incl. production of raw materials that remain in the raw material or in chemical product in concentrations less than 1000 ppm (0,1000% by weight, 1000 mg/kg) in the chemical product. Examples of impurities are residues of the following: residues or reagents incl. residues of monomers, catalysts, by-products, scavengers, and detergents for production equipment and carry-over from other or previous production lines.

Nanomaterial	Nanomaterials/-particles are defined according to the EU Commission Recommendation on the Definition of Nanomaterial (2022/C 229/01): 'Nanomaterial' means a natural, incidental or manufactured material consisting of solid particles that are present, either on their own or as identifiable constituent particles in aggregates or agglomerates, and where 50 % or more of these particles in the number-based size distribution fulfil at least one of the following conditions: (a) one or more external dimensions of the particle are in the size range 1 nm to 100 nm; (b) the particle has an elongated shape, such as a rod, fibre or tube, where two external dimensions are smaller than 1 nm and the other dimension is larger than 100 nm; (c) the particle has a plate-like shape, where one external dimension is smaller than 1 nm and the other dimensions are larger than 100 nm.
Non-domestic furniture	Non-domestic furniture or commercial furniture is furniture intended for use in office buildings, public institutions, hospitals, restaurants, hotels and similar establishments.
Organic	Fibre (such as cotton and wool) that is certified as organic or is in transition to organic in compliance with a standard endorsed by IFOAM Family of Standards, such as Regulation (EU) 2018/848, USDA National Organic Program (NOP), APEDA's National Programme for Organic Production (NPOP), China Organic Standard GB/T19630. The Global Organic Textile Standard (GOTS) and the Demeter Biodynamic Farm Standard are also accepted and are certified as "in transition to organic production". The certification body must have a valid and recognised accreditation for the standard it certifies against, for example, ISO 17065, NOP or IFOAM.
Pre-consumer/commercial recycled material	"Pre-consumer" is defined as material that is reclaimed from the waste stream during a manufacturing process. Production waste (scrap, rework, regrind) that can be returned directly to the same process in which it was generated is not counted as recycled pre-consumer material.
Post-consumer/commercial recycled material	"Post-consumer" is defined as material generated by households or commercial, industrial or institutional facilities in their role as end-users of a product that can no longer be used for its intended purpose. This includes materials from the distribution chain.
Recovered/recycled fibre	Defined according to ISO 14021. Includes both mechanical and chemical recycling.
Recycled material	Recycled material is defined according to ISO 14021 in the categories of pre-consumer and post-consumer and includes both mechanical and chemical recycling.
Re-used material (directly re-used)	Re-used parts (directly re-used) mean parts that have previously been used in another product and have not undergone any mechanical or chemical recycling.

4.1 Description of the product

This chapter contains product specifications such as a description of the product, production methods and any treatment techniques.

O1 Description of the product and production process

Applicants must provide the following information about the product and the production process:

- Product type and market: Specify the type of furniture and its intended market (such as consumer, professional, or not for sale in the open market).
- Description of the product(s) and materials/raw materials included. The total weight of the product and the weight of the constituent materials/raw materials must be stated.
    - No need to specify the types of materials in electrical and electronic components such as electric motors, wires etc.
    - The type of material in small parts does not need to be stated. Small parts include screws, bolts, plugs, brackets, buttons, zips, etc.
    - Small parts do not need to be weighed. The weight calculation does not need to include electrical and electronic components such as electric motor and internal wires etc in e.g., height adjustable desks and beds.
    - Textile is stated as the total weight percentage in the product. More details on the fibre composition in textiles are given in requirement O97 in chapter 4.10.
- Drawing/picture of the product.
- Description, e.g. a flowchart, of the production process*, including materials and which subcontractors perform which stages of the process, e.g. the surface treatment of wood or metal.
- The furniture/fitments must be made of materials for which requirements are imposed in the criteria.
- Materials for which requirements are not imposed must not account for more than 5% by weight. Examples of materials that are not included in the criteria are concrete, ceramic materials and wood-plastic composite (WPC).

** It is not necessary to describe the production process at the individual subcontractor.*

T̄ Detailed description of the points above. An excel sheet can be used to show the different materials and composition. Product data sheets can be sent in as part of the documentation. A flowchart can be used to describe the production process.

4.2 Product requirements

Nordic Ecolabelling sets a number of principal requirements for products relating to the materials contained in the furniture/fitment, quality, consumer information and circular economy related requirements, such as warranty.

4.2.1 PVC and plastic packaging

O2 PVC and plastic packaging

The product* and its packaging must not contain chlorinated polymers/plastics, such as PVC.

The following applies to plastic packaging:

- Plastic packaging must be able to be recycled in today´s recycling systems.

** Exception: PVC used in electrical wiring/cables and electronic components such as motors is exempt from the requirement.*

- A declaration from the manufacturer that the product and its packaging does not contain PVC and plastic packaging can be recycled in today's recycling systems.

4.2.2 Biocides during transport

O3 Biocides during transport

Biocides in the form of pure active substances or as biocide products may not be used during transport of the finished furniture.

- A declaration from the furniture manufacturer confirming that no biocides have been used during transport.

4.2.3 Quality

O4 Performance properties

This requirement applies to the furniture types and fittings listed in the table below.

The product must be tested for strength, stability and safety and meet the requirements of the relevant standard(s) and follow the standards for testing stated in the table below. Mattresses must also meet requirement O6. Other relevant standards maybe accepted if the testing institute provides documentation proving that alternative test is equivalent and produces comparable results.

In cases where the products are aimed at both domestic and non-domestic environment, the requirements for non-domestic environment apply.

Testing must be performed by an independent, accredited testing institute. Internal test laboratories can be approved under certain conditions, see Appendix 1.

The testing shall be carried out in accordance with the applicable version of the standard. If a standard is revised during the period of validity of the license, the licensee is responsible for ensuring compliance with the updated requirements.

End-use environment	Type of furniture	Standards
Domestic environment	Seating	EN 12520 Furniture – Strength, durability and safety – Requirements for domestic seating EN 1022 Furniture – Seating – Determination of stability
	Tables	EN 12521 Furniture – Strength, durability and safety – Requirements for domestic tables EN 14072 Glass in furniture – Test methods
	Storage furniture, kitchen, bathroom, fittings and worktops	EN 14749 Furniture – Domestic and kitchen storage units and kitchen worktops – Safety requirements and test methods EN 14072 Glass in furniture – Test methods
		OR EN 16121:2023, Level 1 – Non-domestic storage furniture – Requirements for safety, strength, durability and stability EN 14072 Glass in furniture – Test methods
	Kitchen drawers and doors	EN 16121:2023, Table 5, Level 1 – Non-domestic storage furniture – Requirements for safety, strength, durability and stability EN 14072 Glass in furniture – Test methods
	Beds and mattresses	EN 1725 Domestic furniture – Beds and mattresses – Safety requirements and test methods EN 1957 Furniture – Beds and mattresses – Test methods for the determination of functional characteristics and assessment criteria
	Bunk beds/high beds	EN 747–1 Furniture – Bunk beds for domestic use – Part 1: Safety, strength and durability requirements
	Children's highchairs* (ages 6–36 months)	EN 14988 Children's highchairs – Requirements and test methods. Part 1: safety requirements
	Shower enclosures/shower walls*	EN 14428 Shower enclosures – Functional requirements and test methods
	Seating for children*	EN 17191 – Seating for children – Safety requirements and test methods
Non-domestic	Seating	EN 16139:2013 Level 1 – Furniture – Strength, durability and safety – Requirements for non-domestic seating EN 1022 Furniture – Seating – Determination of stability
	Tables	EN 15372:2023 Level 2 – Furniture – Strength, durability and safety – Requirements for non-domestic tables EN 14072 Glass in furniture – Test methods
	Storage furniture	EN 16121:2024 Level 1 – Non-domestic storage furniture – Requirements for safety, strength, durability and stability
	Kitchen and bathroom fittings and worktops	EN 14749 Furniture – Domestic and kitchen storage units and kitchen worktops – Safety requirements and test methods EN 14072 Glass in furniture – Test methods
		OR EN 16121:2023: Level 1 – Non-domestic storage furniture – Requirements for safety, strength, durability and stability EN 14072 Glass in furniture – Test methods
	Kitchen drawers and doors	EN 16121:2023, Table 5, Level 1 – Non-domestic storage furniture – Requirements for safety, strength, durability and stability

	Beds and mattresses	EN 1725 Domestic furniture – Beds and mattresses – Safety requirements and test methods EN 1957 Furniture – Beds and mattresses – Test methods for the determination of functional characteristics and assessment criteria
	Bunk beds/high beds	EN 747–1 Furniture – Bunk beds for domestic use – Part 1: Safety, strength, and durability requirements
	Furniture ensembles and enclosures/ office pods	EN 16121 Non-domestic storage furniture. Requirements for safety, strength, durability and stability ISO 23351–1 Acoustics — Measurement of speech level reduction of furniture ensembles and enclosures – Part 1: Laboratory method Complete documentation of the measurements and calculations carried out according to the above standard must be available when the reduction of impact sound is reported.
Schools/institutions	Chairs and tables for educational institutions	EN 1729–1 Furniture – Chairs and tables for educational institutions – Part 1: Functional dimensions EN 1729–2 Furniture – Chairs and tables for educational institutions – Part 2: Safety requirements and test methods
	Storage furniture	EN 16121:2023 Level 1 – Non-domestic storage furniture – Requirements for safety, strength, durability and stability
	Whiteboards, blackboards	EN 14434:2023, Level 2 – Writing boards for educational institutions – Ergonomic, technical and safety requirements and their test methods
Offices	Work chairs	EN 1335–1 Office furniture – Office work chair – Part 1: Dimensions – Determination of dimensions EN 1335–2 Office furniture – Office work chair – Part 2: Safety requirements
	Work tables	EN 527–1 Office furniture – Work tables and desks – Part 1: Dimensions EN 527–2 Office furniture – Work tables – Part 2: Safety, strength, and durability requirements
	Storage furniture	EN 16121:2023 Level 1 – Non-domestic storage furniture – Requirements for safety, strength, durability and stability
	Screens	EN 1023–2 Office furniture – Screens – Part 2: Mechanical safety requirements
	Sound absorption	EN ISO 354 Acoustics – Measurement of sound absorption in a reverberation room ISO 20189 Acoustics — Screens, furniture and single objects intended for interior use — Rating of sound absorption and sound reduction of elements based on laboratory measurements EN ISO 11654 Acoustics – Sound absorbers for use in buildings – Rating of sound absorption
	Table screens	Work table partitions EN 1023–2 Screens – Part 2: Mechanical safety requirements
	Writing boards	EN 14434:2023, Level 2 Writing boards for educational institutions – Ergonomic, technical and safety requirements and their test methods

**The requirements apply irrespective of whether the products are for domestic or non-domestic use.*

- Information stating what purpose and intended end use the furniture has been tested for. The relevant standard and test institute must be stated.
- Test report showing compliance with the requirement.
- If relevant, include a statement on how other standards compared to EN or ISO requirement levels.

O5 Wear resistance of surfaces

Surfaces that are varnished, painted, or have a foil, melamine or laminate finish must meet the requirements for wear resistance stated in the tables below. Alternative test methods may be accepted if an independent third party verifies their correlation to the stated methods.

The requirements do not apply to:

– interior doors

– untreated surfaces

– surfaces treated with soap, wax, or oil

– surfaces covered with linoleum.

The testing shall be carried out in accordance with the applicable version of the standard. If a standard is revised and updated during the period of validity of the license, the licensee is responsible for ensuring compliance with the updated requirements.

Use class	Furniture surface		Requirements
Domestic	Seating furniture Tables Reclining furniture Storage furniture	Undercarriage – legs and frames Undercarriage – legs and frames Undercarriage – legs and frame interior Surfaces incl. drawer bottoms	Req. Category 1
	Seating furniture Reclining furniture Storage furniture	Seats, backrests and arm rests Other surfaces excl. bases External surfaces	Req. Category 2
	Tables	Tables tops	Req. Category 4
Non-domestic/ offices	Seating furniture Tables Reclining furniture Storage furniture	Undercarriage – legs and frames Undercarriage – legs and frames Undercarriage – legs and frame interior Surfaces incl. drawer bottoms	Req. Category 1
	Seating furniture Reclining furniture Storage furniture	Seats, backrests and arm rests Other surfaces excl. undercarriages External surfaces	Req. Category 2
	Table tops	For table tops such as conference, waiting room and library. Refers to the top. For e.g. restaurant, café and training halls see below	Req. Category 4
	Table tops	Designed for restaurants, café, study environments, etc. Refers to the top.	Req. Category 5
Kitchen and bathroom fittings		Interior surfaces and drawer bottoms, excluding shelves and bottoms	Req. Category 1
		Exterior surfaces, shelves and bottoms	Req. Category 3
	Worktop		Req. Category 6

			Requirement category					
Test		**Test method**	**1**	**2**	**3**	**4**	**5**	**6**
Water	*)	EN 12720:	6 h[a]	16 h	16 h	24 h	24 h	24 h
Grease	*)	EN 12720:	24 h[b)]	24 h	24 h	24 h	24 h	24 h
Grease + scratches	*)	SS 83 91 22	-	-	-	24 h + 3 N	24 h + 5 N	24 h + 5 N
Scratches	**)	SS 83 91 22	-	3 N	3 N	3 N	5 N	5 N
	***)	or EN 15186, method A	-	1.5 N	1.5 N	1.5 N	3 N	3 N
Alcohol	*)	EN 12720:	-	-	-	1 h	1 h	1 h
Coffee	*)	EN 12720:	-	1 h[c)]	1 h	1 h	1 h	1 h
Heat, dryness	*)	EN 12722:	-	-	-	70°C	70°C	180°C
Heat, moisture	*)	EN 12721	-	-	-	-	-	85°C
Water on edge	*)	SS 83 91 20	-	-	1 h[d)]	-	-	1 h
Sweat, acid and alkaline	*)	EN 12720	-	1 h[e)]	-	-	-	-
Impact on surface and edge	*)	SS 83 91 23	-	-	25mm[d)]	-	-	25mm
Steam on edge (doors)	*)	SS 83 91 25	-	-	55° (±5)[d)]	-	-	-
Steam on edge (worktop)	*)	SS 83 91 24	-	-	-	-	-	55° (±5)

**) = A result of at least 4 is a pass score in the assessment.*

***) = Maximum scratch width 0.5 mm. Penetration of the varnish layer is not acceptable.*
****) = Maximum scratch width 0.3 mm*

For laminates, requirements and tests in accordance with SS-EN 438-2, -3 are also accepted. It must then include clauses 10, 16, 20, 25 and 26 with the same liquids according to the table above and humid heat according to SS-EN 12721: 2009. For requirements category 1–5, level VGS is accepted. For requirement category 6 level HGS is required as well as testing of edge on finished panel.

For melamine coated panels, requirements and testing according to SS-EN 14322: 2017 with liquids as specified in the table above are also accepted.

a) For the inside back of kitchen fittings, 1 hour applies

b) For the inside back of the kitchen fittings, Grease 24 h

c) Applies to storage furniture – external horizontal surfaces

d) Applies to doors and drawer pieces in kitchens and bathrooms

e) Applies to arm rest

Requirements and requirement levels are based on Swedish Möbelfakta's requirements specification 2024–07–01.

Shower walls / Partitions

Shower walls / partitions refer to products that are set up between showers and / or toilets / urinals / changing compartments in public premises such as changing rooms in swimming pools and schools. The product must be tested according to the relevant standard in the EN

438-series and meet the requirement level given for VGS (laminate grade). Level 5 (no visible change or equivalent wording) must be met for the parameters where this is specified. Products that consist of plastic or glass must meet relevant requirements in EN 14428, see O4.

- Test report showing that relevant requirement levels have been met. The test report must specify the method/standard used, the laboratory, and confirm that the analysis laboratory is an independent third party. Alternative test methods may be accepted if an independent third party verifies their correlation to the stated methods.

O6 Functional properties – mattresses

Mattresses, including mattress covers, must be tested according to EN 1957 and meet the following functional properties:

- Loss of height < 15%
- Loss of firmness < 20%

Decrease in height and firmness refers to the difference between the initial measurements (after 100 cycles) and the measurements performed after the durability test has been completed (after 30,000 cycles).

- Test report confirming compliance with the required levels. The report must specify the method/standard used, the testing laboratory, and confirm that the laboratory is an independent third party. Alternative test methods may be accepted if an independent third party verifies their correlation to the stated methods.

4.2.4 Circular requirements

In this chapter, several of the requirements related to circular economy are gathered. However, it is pointed out that there are also several other requirements that are related to this topic, including requirements for the proportion of recycled plastic and requirements for chemicals that reduce the use of harmful substances that thus disappear from the recycling loop.

O7 Warranty and spare parts

Warranty

- Beds and mattresses: Minimum warranty period of 10 years for frame and spring breakage. The entire product must have a 5–year warranty.
- Kitchen: Minimum warranty of at least 10 years.
- Other products: Minimum warranty of at least 5 years.

By warranty is meant an agreement between buyer and seller that goes beyond the legal warranty and where the seller/manufacturer must offer to repair or replace parts that are damaged or not working properly. The warranty shall apply from the delivery date and must be communicated to the customer. The warranty must be included in the product price.

Spare parts

- Essential spare parts e.g., hinges, gas lift, adjustment functions, wheels etc. must be available for at least 10 years after the product is discontinued.
- Manufacturers must retain design specifications to allow reproduction of parts when needed.

- If an identical replacement part is unavailable, an alternative that maintains functionality must be provided.

T̄ Description of the warranty terms, coverage, and how they are communicated to the customer.

T̄ List of essential spare parts, product's function, which spare parts are offered and how this is communicated to the customer.

O8 Traceability labelling

The furniture/fitment must be labelled with the manufacturer's or retailer name. Electronic marking, such as QR code is also accepted.

T̄ Picture or description of how the labelling applied.

O9 Disassembly and separability

The following information must accompany the product and be available for download on the manufacturer's or retailer's website for at least 10 years after the product is discontinued.

- Sketch/illustration showing replaceable parts and required tools.
- Step-by-step instructions on how to replace parts and components.

T̄ Sketch/illustration, instructions and a description of how this information is communicated to the customer.

O10 Metal – disassembly

The furniture must be designed so that parts of metal can be separated from other materials. parts of the furniture, e.g., a metal base must be detachable from a wooden tabletop, or metal legs on a sofa must be removable from a sofa frame.

Metal must not be a constituent material in composite materials, e.g., metal reinforcement is prohibited. Foams moulded onto metal is also prohibited.

T̄ Description of how metal can be separated from other materials.

O11 Maintenance

Instructions for cleaning and maintenance of the furniture/fitment with specific instructions for the different materials must accompany the product. These instructions must be available for download for at least 10 years on the manufacturer's or retailer's website after the product is discontinued. Alternatively, a QR-code or link to the website and the information can accompany the product.

T̄ Instructions for cleaning and maintenance as well as how this is communicated to the customer.

O12 Consumer information

The following product information should accompany the furniture/fitment and be available for download on the manufacturer's or retailer's website:

- An illustrated assembly instruction if the furniture or fitment has a mountable construction.

- If the manufacturer has a take-back system for the product, this must be informed.
- Information about which materials the product consists of.
- Specify the standards by which the product is tested.

Alternatively, a QR-code or link to the website and the information can accompany the product.

Product information intended for customers.

O13 Removable covers

Removable covers for furniture (e.g., sofa cushions, seat, back and headrest) or mattresses must be labelled with material type and washing instructions.

Description / picture of labelling and washing instructions.

O14 Circular design

To support circular design, the following requirements apply to different category of furniture/fitments. Countertops, partitions between showers/toilets and accessories to continental beds such as headboards are exempt from the requirement.

Upholstered furniture

For upholstered furniture, the requirement can be documented by fulfilling point A) or B) below:

A) The whole product has a circular design where main parts and different materials (such as wood, wood-based boards, plastic, metal, padding and textile) can be separated, replaced, and repaired/renovated. By main parts is meant e.g. seat, back, legs/chassis/base and cushions. The outer textile covers on e.g. the seat or back, must be possible to separate from the padding material.

The requirement does not cover the constituent components within a material, e.g. wood fibre and glue in a wood-based panel, different padding materials glued together or different types of fibre in the textile.

B) At least two of the following points must be met:

- The product consists of a minimum 70% by weight of recycled* and/or renewable** materials.
- The fabric must be removable for washing or replacement (not glued or permanently attached for example by stitching).
- The cushions must be replaceable e.g. using velcro.
- Upholstered parts, e.g. the seat/back of a chair, must be possible to dismantle and replace.
- Manufacturer offers a takeback system for upgrades, repairs or renovation.

Continental beds and frame beds/mattresses

At least two of the following points must be met:

- The textile cover of the bed and/or top mattress can be removed for washing or replacement, e.g. no glue, staples or stitching is used.
- At least 70% by weight must be of recycled* and/or renewable** materials (excluding padding).
- Replaceable mattress cassette(s) in continental beds.
- Made of pure materials for easier recycling. By pure materials is meant e.g. metal, solid wood, and plastic and not composite materials is not regarded as pure material.
- Padding material in the individual mattress must be of one type, e.g. either 100% latex or 100% polyurethane foam or the padding materials can be different if the materials are not glued together. Padding material of the same type can be glued (e.g. polyurethane foam can be glued together with polyurethane foam).
- Textiles (all textile parts on the bed / mattress except for textiles around pocket springs and textiles that are exempted in O97 Material restrictions) shall either:
    - Contain only one type of fibre e.g. 100% wool, 100% polyester or
    - be a mixture of cellulose-based material, e.g. a blend of viscose and cotton.
- Manufacturer offers to take-back system the bed for upgrades, repairs, or renovation.

Mattresses (sold separately)

At least one of the following points must be met:

- Fabric must be removable for washing or changing, (not glued or stitched to the padding material) has been used to attach the fabric to the padding material or the fabric is not stitched to the padding material, so it can be easily removed for washing or changing.
- Padding material must be of one type, e.g. either 100% latex or 100% polyurethane foam or the padding material can be different as long as the materials are not glued together. Padding material of the same type can be glued (e.g. polyurethane foam can be glued together with polyurethane foam).
- Textiles must either
    - consist of only one type of fibre, e.g., 100% wool or 100% polyester or
    - be a mixture of cellulose-based material, e.g., a blend of viscose and cotton.

Other Furniture and Fitments

At least two of the following points must be met:

- Circular design: Main parts/materials must be separable, replaceable, repairable, or upgradable.

By main parts is meant e.g. seat, back, legs/chassis/base, tabletop and fronts on cabinets/drawers. The requirement does not cover the constituent components within a material, e.g. wood fibre and glue in wood-based panels, as well as laminate and linoleum that are glued to a carrier.

- At least 70% by weight must be of recycled * and / or renewable materials**.
- Made of pure recyclable materials. By pure materials is meant e.g. metal, solid wood, paper and plastic. Composite materials such as fibreglass-reinforced plastic is not considered as pure material.
- No glue is used in the composition of the various materials (except glue that is part of a wood-based panel)
- Manufacturer offers a takeback system for upgrade, repair or renovation.

** Recycled is defined according to ISO 14021 in the category's pre-consumer and post-consumer. See Definitions.*

*** Wood-based panels are considered renewable even if they contain glue.*

T̄ Description showing which points are met.

4.2.5 Furniture with electrical and electrical components

The requirement in this chapter concerns lamps/light sources that are part of a furniture and requirements for energy consumption in stand-by mode.

Please note that electrical and electronic components such as motors, controls and control boxes are exempt from the general chemical requirements and the relevant material requirements (plastic and metal). However, please note that furniture with electronics must comply with several laws related to these components. Examples of relevant legislation are the RoHS directive, the WEEE directive, the REACH regulation and the ECO design directive (if external power supply is used). Relevant legislation must be complied with for all Nordic Swan Ecolabelled products and the applicant states that all relevant laws and regulations have been complied with when signing the application form.

Lamp as a furniture feature

The requirement applies to lamps which is built-in or recessed into the furniture, e.g. in a cupboard or in a drawer. Free-standing lamps cannot be labelled.

O15 Lamps / light sources

Lamps / light sources can be a part of a furniture/fitment, e.g. in a cabinet or drawer. If lamps are included, the following must be met:

- The light source must be LED.
- The light source must be replaceable.

T̄ Description of where the lamp is included in the product.

T̄ Declaration from the manufacturer confirming use of LED light sources and their replaceability

O16 Standby energy consumption

Furniture with electric and electronic components (e.g., height adjustable tables and adjustable beds) must meet the following requirements:

- Maximum standby energy consumption: 0.3 W.
- If the furniture has a network function, the network standby energy consumption must not exceed 2 W.

Testing must follow method EN 50564 or equivalent standard.

T̄ Test report according to EN 50564 showing that the requirement is fulfilled.

4.3 Chemicals

Nordic Ecolabelling sets requirements for chemicals that are used during the manufacture of the constituent materials, for the manufacture/assembly of the furniture and for surface treatment. The chemical requirements include products such as glue, varnish, staining, primer, filler, oil, soap, joint filler, sealants, colour products, binders, pigments, bleaching chemicals and the like.

Auxiliary substances such as lubricating oil and cleaning detergents are not covered by the requirements.

The chemical requirements do not apply to wires, electric or electronic components such as motors. However, it is important to notice that relevant regulatory requirements, such as the RoHS directive, must always be met. The chemical requirements also do not apply to chemicals used in the production of steel or aluminium or alloys that are included.

The requirements for chemicals are not all found in one chapter but will be specified in the chapter for each individual material, e.g. chemicals that are relevant in the manufacture of wood-based panels will be specified in the chapter for wood-based panels and chemicals used in the production of laminates will be specified in the chapter on laminates. An exception to this is the requirements to surface treatment of wood, wood-based panels and laminate, which are placed together in one chapter.

Much of the production process takes place at the subcontractors these days, but the furniture manufacturers often do some stages of the process, such as assembling the finished piece of furniture, themselves. There are some furniture manufacturers that do more of the production themselves. The criteria for chemicals must be met regardless of whether the chemicals are used at the subcontractors' or the furniture manufacturers' facilities. The chapters that apply to subcontractors/producer of different materials and to the furniture manufacturer or the subcontractor that assembles/produces the finished piece of furniture are given below.

Type of chemical/material	**Chapter**
Chemicals used by the furniture manufacturer in its production/assembly of the furniture/fitment (does not apply to chemicals for surface treatment. Chemicals used for surface treatment of wood, wood-based boards and laminate are specified in chapter 4.8 or in the respective chapter for the relevant material).	4.3.1
Chemicals used by subcontractors that produce/assemble the finished piece of furniture/fitment (does not apply to chemicals for surface treatment. Chemicals used for surface treatment of wood, wood-based boards and laminate are specified in chapter 4.8 or in the respective chapter for the relevant material).	4.3.1
Chemicals for wood-based panels	4.5
Chemicals for paper	4.6
Chemicals for laminate	4.7
Chemicals for surface treatment of wood, wood-based panels and laminate	4.8
Chemicals for metallisation and other surface treatment of metal *The chemical requirements do not apply to chemicals used in the production of steel or aluminium or alloys that are included.*	4.9

Chemicals for plastics, rubber and silicone	4.10
Chemicals for textiles	4.11
Chemicals for padding materials	4.13
Chemicals for hide and leather	4.14

Definitions

The following definitions apply to all the requirements for chemicals unless otherwise stated. The requirements apply to all ingoing substances in the chemical product, but not to impurities unless otherwise stated in the specific requirement. Ingoing substances and impurities are defined below.

Ingoing substances: All substances in the chemical product, including additives (e.g. preservatives and stabilisers) in the raw materials. Substances known to be released from ingoing substances (e.g. formaldehyde, arylamine, in-situ generated preservatives) are also considered as ingoing substances.

Impurities: Residuals, pollutants, contaminants etc. from production, incl. production of raw materials that remain in the raw material or in chemical product in concentrations less than 1000 ppm (0,1000% by weight, 1000 mg/kg) in the chemical product. Examples of impurities are residues of the following: residues or reagents incl. residues of monomers, catalysts, by-products, scavengers, and detergents for production equipment and carry-over from other or previous production lines.

4.3.1 Chemicals used by furniture manufacturers and subcontractors

The requirements in this chapter apply to chemicals that are added to the furniture/fitment or are used in the production/assembly of the furniture/fitment at the production site of the furniture/fitment or at the subcontractor's facility. A subcontractor can assemble parts of or the entire piece of furniture. Any chemicals used here, e.g. adhesives, must meet the requirements stated in this chapter.

If the furniture/fitment manufacturer itself performs much of the production process, and/or adds chemicals or carries out some of the chemical treatment, e.g. coating, the criteria for chemicals in the respective chapter for the relevant material must be met. It is emphasized that the requirements in this chapter do not apply to the production of various materials such as wood-based panels, metal, or textiles. These are stated in separate chapters, see introductory text in chapter 4.3 Chemicals.

O17 Antibacterial substances

Chemical products and nanomaterials* with antibacterial or disinfectant properties must not be added to the finished item of furniture or fitment.

The term antibacterial means chemical products that prevent or inhibit growth of microorganisms, such as bacteria or fungi. Silver ions, silver nanoparticles, gold nanoparticles and copper nanoparticles are considered antibacterial substances.

** In accordance with the definition of a nanomaterial adopted by the European Commission (2022/C 229/1), see definitions.*

- A declaration from the manufacturer of the furniture/fitment or the subcontractor stating that no chemical products and nanomaterial with antibacterial or disinfectant properties have been used on the surface of the finished furniture/fitment.

O18 Classification of chemical products

Chemical products must not have any of the classifications in the table below.

CLP Regulation 1272/2008		
Hazard class	**Hazard category**	**Hazard code**
Hazardous to the aquatic environment	Aquatic Acute 1 Aquatic Chronic 1 Aquatic Chronic 2 Ozone	H400 H410 H411 H420
Carcinogenicity*	Carc. 1A or 1B Carc. 2	H350 H351
Germ cell mutagenicity*	Muta. 1A or 1B Muta. 2	H340 H341
Toxic for reproduction*	Repr. 1A or 1B Repr. 2 Lact.	H360 H361 H362
Acute toxicity	Acute Tox 1 or 2 Acute Tox 1 or 2 Acute Tox 1 or 2 Acute Tox 3 Acute Tox 3 Acute Tox 3	H300 H310 H330 H301 H311 H331
Specific target organ toxicity with single or repeated exposure	STOT SE 1 STOT RE 1	H370 H372

** Including all combinations of stated exposure route and stated specific effect. For example, H350 also covers the classification H350i.*

Note that responsibility for correct classification lies with the manufacturer.

Exemptions apply to:

- The classification H351 for adhesive containing methylene diphenyl diisocyanate (MDI)
- The classification H350 and H341 for adhesives containing formaldehyde (CAS No. 50–00–0) provided the requirement for free formaldehyde (O23), is fulfilled.

- A declaration from the chemical manufacturer or supplier.

- A safety data sheet for the product in compliance with current European legislation (Annex II of REACH, Regulation (EC) No. 1907/2006).

O19 Classification of ingoing substances

Ingoing substances (see Definitions) in the chemical product must not have any of the classifications in the table below:

CLP Regulation 1272/2008		
Hazard class	**Hazard category**	**Hazard code**
Carcinogenic*	Carc. 1A or 1B Carc. 2	H350 H351
Germ cell mutagenic*	Muta. 1A or 1B Muta. 2	H340 H341
Toxic for reproduction*	Repr. 1A or 1B Repr. 2 Lact.	H360 H361 H362

**Including all combinations of stated exposure route and stated specific effect. For example, H350 also covers the classification H350i.*

Exemptions apply to:

- The classification H351 for adhesive containing methylene diphenyl diisocyanate (MDI).
- The classification H350 and H341 for adhesives containing formaldehyde (CAS No. 50–00–0), if the requirement to free formaldehyde, which is regulated in a separate requirement, is fulfilled.
- The classification H351 for adhesives containing up to 1000 ppm residual monomer of vinyl acetate (CAS No. 108–05–4).
- The classification H361 for 1,1,1-Trimethylolpropane (TMP, CAS No. 77–99–6).

☐ A declaration from the chemical manufacturer or supplier.

☐ A safety data sheet for the product in compliance with current European legislation (Annex II of REACH, Regulation (EC) No. 1907/2006).

O20 Prohibited substances

The following substances must not be present as ingoing substance (See Definitions) in chemical products:

- Substances on the Candidate List*
- Substances that have been evaluated in the EU to be PBT (Persistent, Bioaccumulative and Toxic) or vPvB (very Persistent and very Bioaccumulative)**
- Potential or identified endocrine disruptors, listed in any of the following "Endocrine Disruptor Lists" List I; II and III. Exemptions apply to:
    - IPBC (3-iodo-2-propynyl butylcarbamate, CAS No. 55406-53-6) may be present in the chemical product at a level of not more than 0,2% by weight

Note: Substances moved to "Substances no longer on list" and not present on Lists I-III, are no longer excluded, except for those on sublist II where concern remains. Nordic Ecolabelling will assess these on a case-by-case basis.

- Perfluorinated and polyfluorinated alkylated substances (PFAS)
- Halogenated organic compounds. Exceptions*** for:
    - Bronopol (CAS No. 52–51–7) may be present in the chemical product at a level of not more than 0.05% by weight
    - Mixture (3:1) of CMIT/MIT (5 chloro-2-methyl-4-isothiazolin-3-one CAS No. 247–500–7; 2-methyl-4-isothiazolin-3-one CAS No. 220–239–6) may be

present in the chemical product at a level of not more than 0.0015% by weight

- IPBC (Iodopropynyl butylcarbamate) may be present in the chemical product at a level of not more than 0.2% by weight
- Adhesives containing polychloroprene for production of mattresses and upholstered furniture if the emission of the rest monomer chloroprene (2-chloro-1,3-butadiene) is ≤ 1 µg/m^3 after 3 days, measured with the chamber method EN ISO 16000 or equivalent methods. The exception is not valid for mattresses designed for children.

**** Perfluorinated and Polyfluorinated alkyl substances are covered by their own bullet and are not included in the exemption.*

- Isothiazolinones may be present in the chemical product at a level of not more than 0.05% by weight
- Butylhydroxytoluene (BHT, CAS No. 128–37–0)
- Aziridine and polyaziridines
- Bisphenol A, S and F
- Alkylphenols, alkylphenol ethoxylates and other alkylphenol derivates****
- Phthalates
- Pigments and additives based on lead, tin, cadmium, chromium VI and mercury, and their compounds
- Volatile aromatic hydrocarbons (VAH). They are permitted in the chemical product as an impurity at a level of not more than 1% by weight

**The Candidate List is available on the ECHA website: http://echa.europa.eu/candidate-list-table*

***PBT and vPvB in accordance with the criteria in Annex XIII of REACH*

*****Alkylphenol derivatives are defined as substances that release alkylphenols when they break down.*

- ☐ A declaration from the manufacturer/supplier of the chemical product.
- ☐ A safety data sheet for the product in compliance with current European legislation (Annex II of REACH, Regulation (EC) No. 1907/2006).

O21 Nanomaterials

The chemical product must not contain nanomaterials* as ingoing substances (See Definitions). Exemptions apply to:

- Pigments**
- Naturally occurring inorganic fillers***
- Unmodified synthetic amorphous silica

** See definitions.*

*** This exception does not include pigments added for purposes other than colour.*
**** This applies to fillers covered by Annex V item 7 of REACH.*

- ☐ A declaration from the chemical manufacturer that the chemical product does not contain any nanomaterial.

O22 VOCs in adhesives

VOCs (volatile organic compounds) may not account for more than 3% by weight of the adhesive.

VOC are defined as any organic compound having an initial boiling point less than or equal to 250°C measured at a standard pressure of 101.3 kPa (the same definition that appears in the VOC Directive 2004/42/EC).

- A declaration from the adhesive producer that the requirement has been met.

O23 Free formaldehyde

The content of free formaldehyde (from formaldehyde not intentionally added or from formaldehyde-releasing substances) must not exceed 0.02% by weight (200 ppm) in the chemical product.

The content of free formaldehyde in adhesives must not exceed 0.2% by weight (2,000 ppm). The requirement applies to the adhesive before any mixture with a hardener.

- A declaration from the manufacturer/supplier of the chemical product.

4.4 Solid wood, cork and bamboo

The requirements in chapter 4.4 apply to solid wood, cork and bamboo. Panels made of wood, cork and bamboo are covered by requirements in section 4.5.

Furniture parts made of re-used solid wood, cork or bamboo are exempted from requirements O25 and O26.

Molded veneer sheets are also included in this chapter and the glue used in the molded veneer sheets must meet the chemical requirements in chapter 4.3.

4.4.1 Requirements that apply irrespective of quantity in the product

O24 Chemicals in re-used parts

The previous application area for re-used* parts must be specified.

Re-used parts made of solid wood, cork, or bamboo must be untreated.

**Re-used parts mean parts that have previously been used in another product (post-consumer).*

- A specification of what the re-used part has been used for and a declaration confirming it is untreated. Nordic Ecolabelling may request additional documentation if compliance is uncertain.

O25 Tree species with restricted use

Nordic Ecolabelling's list of restricted tree species* consist of virgin tree species listed on:

a) CITES (Appendices I, II and III)

b) IUCN red list, categorized as CR, EN and VU

c) Rainforest Foundation Norway´s tree list

d) Siberian larch (originated in forests outside the EU)

Tree species listed on a) CITES (Appendices I, II and III) are not permitted to be used.

Tree species listed on either b), c) or d) may be used if it meets all of the following requirements:

- the tree species does not originate from an area/region where it is IUCN red listed, categorized as CR, EN or VU.
- the tree species does not originate from Intact Forest Landscape (IFL), defined in 2002: http://www.intactforests.org/world.map.html.
- the tree species must originate from FSC or PEFC certified forest/plantation and must be covered by a valid FSC/PEFC chain of custody certificate documented/controlled as FSC or PEFC 100% through the FSC transfer method or PEFC physical separation method.
- tree species grown in plantation shall in addition not originate from plantations established on areas converted from forest after 1994.

**The list of restricted tree species is located on the website: Forestry requirements (nordic-swan-ecolabel.org)*

T̄ Declaration from the applicant/manufacturer/supplier that tree species listed on a-d) are not used.

If species from the lists b), c) or d) is used:

T̄ The applicant/manufacturer/supplier are required to present a valid FSC/PEFC Chain of Custody certificate that covers the specific tree species and demonstrate that the tree is controlled as FSC or PEFC 100% through the FSC transfer method or PEFC physical separation method.

T̄ The applicant/manufacturer/supplier are required to document full traceability back to the forest/certified forest unit thereby demonstrating that;

- the tree does not originate from an area/region where it is IUCN red listed, categorized as CR, EN or VU;
- the tree species does not originate from Intact Forest Landscape (IFL), defined in 2002 http://www.intactforests.org/world.webmap.html;
- for plantations, the applicant/manufacturer/supplier must document that the tree species does not originate from plantations established on areas converted from forest after 1994.

4.4.2 Requirement for furniture/fitments containing ≥ 10% wood, bamboo or cork by weight

O26 Traceability and certification

The requirement applies to furniture/fitments containing more than 10 weight % of wood/bamboo/cork:

Species name

Applicant/manufacturer/supplier must state the name (species name of the wood raw material / bamboo / cork) that are used in the Nordic Swan Ecolabelled furniture/fitment.

Chain of custody certification

The applicant/manufacturer of the furniture/fitment or the applicant's/manufacturer's subcontractors of wood raw materials/bamboo/cork must hold a valid FSC/PEFC chain of custody (CoC) certification.

Exception: a subcontractor (e.g. a carpentry workshop) of the applicant that does not have CoC certification may also be approved. This is subject to a guarantee from the subcontractor that the wood raw materials are purchased from a CoC certified supplier of wood that can prove that the wood raw materials comply with the requirements stated here. The subcontractor must guarantee that the certified wood is sold to the manufacturer of the Nordic Swan Ecolabelled product. The applicant must have an agreement with the subcontractor which describes how the subcontractor guarantees that the certified timber will be delivered to the applicant. The agreement shall state that the subcontractor is obliged to report to the applicant when changing wood supplier.

Certified wood raw materials, willow, bamboo, and cork

A minimum of 70% by weight of all wood raw materials, bamboo and cork used in the Nordic Swan Ecolabelled product must origin from forest managed according to sustainable forestry management principles that meet the requirements set out by FSC or PEFC chain of custody schemes.

The remaining proportion of wood raw material must be covered by the FSC/PEFC control schemes regarding FSC controlled wood/PEFC controlled sources.

If the furniture manufacturer is chain of custody certified the following applies:

The manufacturer must provide evidence with a balance sheet from the company's accounting system correctly showing account for and allocated inputs and outputs of certified wood raw material and of any material from "controlled" sources, to their manufacturing facility and resulting Nordic Swan Ecolabelled products.

If the subcontractor is chain of custody certified the following applies:

The furniture manufacturer must submit documentation on the purchase of wood raw material from the CoC-certified subcontractor which shows that the certification requirement of at least 70% certified is fulfilled and that the remaining share is covered by the control schemes (FSC controlled wood / PEFC controlled sources). This must be specified on the invoice / delivery note with certification claim. The furniture manufacturer must ensure that the wood raw material specified on the invoice is used in the production of the Nordic Swan Ecolabelled product.

- The names (species names) of the wood raw materials, bamboo and cork that are used.

- The applicant/furniture manufacturer or supplier must provide valid FSC/PEFC CoC certification that includes all wood raw materials, bamboo and cork used in the Nordic Swan Ecolabelled furniture/fitment.

If the furniture manufacturer is chain of custody certified:

- The applicant shall provide audited accounting documents that demonstrate that at least 70% of the materials allocated to the Nordic Swan Ecolabelled product or production line originate from forests or areas managed according to sustainable forestry management principles that meet the requirements set out by FSC or PEFC chain of custody scheme. If the product or production line includes uncertified virgin material, proof shall be provided that the content of uncertified virgin material does not exceed 30% and is covered by a verification system that ensures that it is legally sourced and meets any other requirement set out by FSC or PEFC with respect to uncertified material.

If the subcontractor is chain of custody certified:

- Documentation from the furniture manufacturer on the purchase of wood raw material from the CoC-certified subcontractor which shows that the certification requirement of at least 70% certified is fulfilled and that the remaining share is covered by the control schemes (FSC controlled wood / PEFC controlled sources). This must be specified on the invoice / delivery note with certification claim. The furniture manufacturer must declare that the wood raw material that fulfils the requirement is used in the Nordic Swan Ecolabelled production.

- If an applicant does not have a subcontractor with chain of custody certification, the subcontractor must present invoices for the wood raw materials in question from a supplier of wood with chain of custody certification and that supplier's CoC certificate, which must correspond exactly with the invoices. Volumes of purchased certified wood raw materials must be stated on the invoices. The applicant must have a contract with the subcontractor that describes how it guarantees that the certified wood specified on the invoice is delivered to the applicant. It must also be stated in the contract that the subcontractor is required to inform the applicant if their supplier of wood is changed. Nordic Ecolabelling may request further information. The furniture manufacturer must declare that the wood raw material that is delivered from the subcontractor and fulfils the requirement of certified and controlled share is used in the Nordic Swan Ecolabelled production.

4.5 Panels made of wood and/or bamboo

The requirements in chapter 4.5 apply to wood-based panels such as chipboard, fibreboard (including MDF and HDF panels), OSB (Oriented Strand Board), veneer (plywood and parallel-laminated veneer panels) and solid wood panels (corresponding to non-load bearing laminated wood panels or DIY panels). The requirements also cover equivalent products made of bamboo.

O27 Ecolabelled panels

If the panel is Nordic Swan Ecolabelled in accordance with the Nordic Swan Ecolabel criteria for Panels and mouldings for interior use, generation 7 or later, the requirements in this chapter (4.5) are fulfilled. However, all other chapters must still be fulfilled.

- Name, manufacturer and licence number of the panel.

O28 Tree species with restricted use

Nordic Ecolabelling's list of restricted tree species* consist of virgin tree species listed on:

a) CITES (Appendices I, II and III)

b) IUCN red list, categorized as CR, EN and VU

c) Rainforest Foundation Norway´s tree list

d) Siberian larch (originated in forests outside the EU)

Tree species listed on a) CITES (Appendices I, II and III) are not permitted to be used.

Tree species listed on either b), c) or d) may be used if it meets all of the following requirements:

- the tree species does not originate from an area/region where it is IUCN red listed, categorized as CR, EN or VU.
- the tree species does not originate from Intact Forest Landscape (IFL), defined in 2002: http://www.intactforests.org/world.map.html.
- the tree species must originate from FSC or PEFC certified forest/plantation and must be covered by a valid FSC/PEFC chain of custody certificate documented/controlled as FSC or PEFC 100% through the FSC transfer method or PEFC physical separation method.
- tree species grown in plantation shall in addition not originate from plantations established on areas converted from forest after 1994.

**The list of restricted tree species is located on the website: Forestry requirements (nordic-swan-ecolabel.org)*

- Declaration from the applicant/manufacturer/supplier that tree species listed on a-d) are not used.
- If species from the lists b), c) or d) is used:
- The applicant/manufacturer/supplier are required to present a valid FSC/PEFC Chain of Custody certificate that covers the specific tree species and demonstrate that the tree is controlled as FSC or PEFC 100% through the FSC transfer method or PEFC physical separation method.
- The applicant/manufacturer/supplier are required to document full traceability back to the forest/certified forest unit thereby demonstrating that;
  - the tree does not originate from an area/region where it is IUCN red listed, categorized as CR, EN or VU;
  - the tree species does not originate from Intact Forest Landscape (IFL), defined in 2002 http://www.intactforests.org/world.webmap.html;
  - for plantations, the applicant/manufacturer/supplier must document that the tree species does not originate from plantations established on areas converted from forest after 1994.

4.5.1 Requirements if the panel accounts for more than 5% of the product by weight

O29 Chemicals in wood-based panels with recycled materials

Recycled materials in wood-based panels must meet the requirements of the European Panel Federation's (EPF) Standard for delivery conditions of recycled wood, 2018[1].

This means that the materials must not come from:

- Treated wood: wood that contains halogenated organic compounds or heavy metals as a result of treatment with wood preservatives.
- Wood that exceeds the threshold limit values in the table below:

Substance/compound	Limit value (mg/kg recycled wood)
Arsenic (As)	25
Cadmium (Cd)	50
Chromium (Cr)	25
Copper (Cu)	40
Lead (Pb)	90
Mercury (Hg)	25
Fluorine (F)	100
Chlorine (Cl)	1000
Pentachlorophenol (PCP)	5
Creosote (Benzo(a)pyrene)	0.5

The requirement does not apply to sawdust, wood chips and similar materials that come straight from the wood-processing industry where the wood is virgin/untreated.

t̄ For wood-based panels: Certification of compliance with the EPF's Standard for delivery conditions of recycled wood, 2018, or subsequent versions, and any equivalent documentation/test report e.g. documentation in accordance with the German waste wood ordinance, 2002 or later, showing compliance with the requirements of the standard.

O30 Classification of chemical products

Chemical products used in the production of wood-based panels must not have any of the classifications listed in the table below.

[1] https://europanels.org/wp-content/uploads/2018/09/EPF-Standard-for-recycled-wood-use.pdf

CLP Regulation 1272/2008		
Hazard class	**Hazard category**	**Hazard code**
Hazardous to the aquatic environment	Aquatic Acute 1 Aquatic Chronic 1 Aquatic Chronic 2 Ozone	H400 H410 H411 H420
Carcinogenicity*	Carc. 1A or 1B Carc. 2	H350 H351
Germ cell mutagenicity*	Muta. 1A or 1B Muta. 2	H340 H341
Toxic for reproduction*	Repr. 1A or 1B Repr. 2 Lact.	H360 H361 H362
Acute toxicity	Acute Tox 1 or 2 Acute Tox 1 or 2 Acute Tox 1 or 2 Acute Tox 3 Acute Tox 3 Acute Tox 3	H300 H310 H330 H301 H311 H331
Specific target organ toxicity with single or repeated exposure	STOT SE 1 STOT RE 1	H370 H372

**Including all combinations of stated exposure route and stated specific effect. For example, H350 also covers the classification H350i.*

Note that responsibility for correct classification lies with the manufacturer.

Exemptions apply to:

- The classification H351 for adhesive containing methylene diphenyl diisocyanate (MDI).
- The classifications H350, H341, H301, H311 and H331 for resins containing formaldehyde (CAS No. 50–00–0). Emissions of formaldehyde from the laminate are regulated in a separate requirement.
- The classifications H301, H311, H331 and H370 for resins containing a maximum of 10% by weight of methanol (CAS No. 67–56–1)
- The classifications H351 and H361 for resins containing melamine (CAS No. 108–78–1).
- The classifications H341, H301 and H331 for resins containing a maximum of 10% by weight of phenol (CAS No. 108–95–2) used in plywood.

☐ A declaration from the chemical manufacturer or supplier.

☐ A safety data sheet for the product in compliance with current European legislation (Annex II of REACH, Regulation (EC) No. 1907/2006).

O31 Classification on ingoing substances

Ingoing substances (See Definitions) in the chemical products used in the production of wood-based panels must not have any of the classifications in the table below:

CLP Regulation 1272/2008		
Hazard class	**Hazard category**	**Hazard code**
Carcinogenic*	Carc. 1A or 1B Carc. 2	H350 H351
Germ cell mutagenic*	Muta. 1A or 1B Muta. 2	H340 H341
Toxic for reproduction*	Repr. 1A or 1B Repr. 2 Lact.	H360 H361 H362

**Including all combinations of stated exposure route and stated specific effect. For example, H350 also covers the classification H350i.*

Exemptions apply to:

- The classification H351 for adhesive containing methylene diphenyl diisocyanate (MDI).
- The classification H350 and H341 for adhesives containing formaldehyde (CAS No. 50–00–0), if the requirement to free formaldehyde, which is regulated in a separate requirement, is fulfilled.
- The classification H361 1,1,1-Trimethylolpropane (TMP, CAS No. 77–99–6).
- The classifications H350 and H341 for resins containing formaldehyde (CAS No. 50–00–0). Emissions of formaldehyde are regulated in a separate requirement.
- The classification H341 for resins containing a maximum of 10% by weight of phenol (CAS No. 108–95–2) used in plywood.

☐ A declaration from the chemical manufacturer or supplier.

☐ A safety data sheet for the product in compliance with current European legislation (Annex II of REACH, Regulation (EC) No. 1907/2006).

O32 Prohibited substances

The following substances must not be present as an ingoing substance (See Definitions) in chemical products:

- Substances on the Candidate List*
  - Exemption applies to: melamine (CAS No. 108–78–1)
- Substances that have been evaluated in the EU to be PBT (Persistent, Bioaccumulative and Toxic) or vPvB (very Persistent and very Bioaccumulative)**
- Potential or identified endocrine disruptors, listed in any of the following "Endocrine Disruptor Lists" List I; II and III. Exemptions apply to:
  - IPBC (3-iodo-2-propynyl butylcarbamate, CAS No. 55406-53-6) may be present in the chemical product at a level of not more than 0,2% by weight

Note: Substances moved to "Substances no longer on list" and not present on Lists I-III, are no longer excluded, except for those on sublist II where concern remains. Nordic Ecolabelling will assess these on a case-by-case basis.

- Perfluorinated and polyfluorinated alkylated substances (PFAS)
- Halogenated organic compounds. Exceptions*** for:

- Bronopol (CAS No. 52–51–7) may be present in the chemical product at a level of not more than 0.05% by weight
- Mixture (3:1) of CMIT/MIT (5 chloro-2-methyl-4-isothiazolin-3-one CAS No. 247–500–7; 2-methyl-4-isothiazolin-3-one CAS No. 220–239–6) may be present in the chemical product at a level of not more than 0.0015% by weight
- IPBC (Iodopropynyl butylcarbamate) may be present in the chemical product at a level of not more than 0.20% by weight

*** *Perfluorinated and Polyfluorinated alkyl substances are covered by their own bullet and are not included in the exemption.*

- Isothiazolinones may be present in the chemical product at a level of not more than 0.05% by weight
- Butylhydroxytoluene (BHT, CAS No. 128–37–0)
- Aziridine and polyaziridines
- Bisphenol A, S and F
- Alkylphenols, alkylphenol ethoxylates and other alkylphenol derivates****
- Phthalates
- Pigments and additives based on lead, tin, cadmium, chromium VI and mercury, and their compounds
- Volatile aromatic hydrocarbons (VAH). They are permitted in the chemical product as an impurity at a level of not more than 1% by weight

**The Candidate List is available on the ECHA website: http://echa.europa.eu/candidate-list-table*

***PBT and vPvB in accordance with the criteria in Annex XIII of REACH*

*****Alkylphenol derivatives are defined as substances that release alkylphenols when they break down.*

- ☐ A declaration from the manufacturer/supplier of the chemical product.
- ☐ A safety data sheet for the product in compliance with current European legislation (Annex II of REACH, Regulation (EC) No. 1907/2006).

O33 Nanomaterials

The chemical product must not contain nanomaterials* as ingoing substances (See Definitions). Exemptions are made for:

- Pigments**
- Naturally occurring inorganic fillers***
- Unmodified synthetic amorphous silica

* *In accordance with the definition of a nanomaterial adopted by the European Commission (2022/C 229/01)), see definitions.*

** *This exception does not include pigments added for purposes other than colour.*
*** *This applies to fillers covered by Annex V item 7 of REACH.*

- ☐ A declaration from the chemical manufacturer that the chemical product does not contain any nanomaterial.

O34 VOCs in adhesives

VOCs (volatile organic compounds) may not account for more than 3% by weight of the adhesive.

- A declaration from the adhesive producer that the requirement has been met.

O35 Emission of formaldehyde

Wood-based panels containing formaldehyde-based adhesive must not exceed the limit values for the relevant test method* according to the table below:

Test method	EN 717–1	EN 16516 Loading factor 1 m^2/m^3	EN 16516 Loading factor 1,8 m^2/m^3
Formaldehyde	0.062 mg/m^3	0,099 mg/m^3	0.124 mg/m^3

Limit value after 28 days according to EN 717-1 or EN 16516. If the limit values in the table are met for a period shorter than 28 days, this is accepted.

** Or other test methods with scientifically proven correlation by independent third party.*

The requirement applies to the raw wood-based panel. For panels coated with e.g. melamine O54 must be met.

- Analysis report, including measurement methods, measurement results and measurement frequency. It must be clearly stated which method/standard was used, the laboratory that conducted the analysis, and that the analysis laboratory is an independent third party. Other analysis methods than those stated in the requirement may be used, provided that the correlation between test methods can be verified by an independent third party.

4.5.2 Requirement when panels make up more than 10% by weight of the furniture/fitment

O36 Traceability and certification of wood raw materials in panels

Species name

Applicant/manufacturer/supplier must state the name (species name) of the wood raw materials/bamboo that is used in the panel.

Chain of custody certification

The manufacturer/supplier of the panel must have a valid Chain of Custody certification under the FSC/PEFC schemes.

Exemption: Manufacturers who only use recycled* material in the production are exempt from the requirement for Chain of Custody certification.

Certified material

A minimum of 70% by weight of all wood raw materials/bamboo used in the panel must origin from forest managed according to sustainable forestry management principles that meet the requirements set out by FSC or PEFC chain of custody schemes.

The remaining proportion of wood raw material must be covered by the FSC/PEFC control schemes regarding FSC controlled wood/PEFC controlled sources or be recycled material.

If the furniture manufacturer is chain of custody certified the following applies:

The furniture manufacturer must provide evidence with a balance sheet from the company's accounting system correctly showing account for and allocated inputs and outputs of certified wood raw material and of any material from "controlled" sources, to their manufacturing facility and resulting Nordic Swan Ecolabelled products.

If the manufacturer of the panel is chain of custody certified the following applies:

The furniture manufacturer must submit documentation on the purchase of panels from the CoC-certified manufacturer/supplier which shows that the certification requirement of minimum 70% certified is fulfilled and that the remaining share is covered by the control schemes (FSC controlled wood / PEFC controlled sources). This must be specified on the invoice / delivery note with certification claim. The furniture manufacturer must ensure that the wood raw material specified on the invoice is used in the production of the Nordic Swan Ecolabelled product.

** Recycled material is defined according to ISO 14021 in the categories of pre-consumer and post-consumer, see definitions.*

- The manufacturer/supplier of the panel must state the name (species name) of the wood raw materials used in the construction panel.
- Valid FSC/PEFC Chain of Custody certification from the manufacturer/supplier of panels, or the furniture manufacturer. Manufacturers that only use recycled materials are exempt from this requirement.

If the furniture manufacturer is chain of custody certified:

- The furniture manufacturer shall provide audited accounting documents that demonstrate that a minimum 70% of the material allocated to the Nordic Swan Ecolabelled product or production line originate from forests or areas managed according to sustainable forestry management principles that meet the requirements set out by FSC or PEFC chain of custody scheme. If the product or production line includes uncertified virgin material, proof shall be provided that the content of uncertified virgin material does not exceed 30% and is covered by a verification system that ensures that it is legally sourced and meets any other requirement set out by FSC or PEFC with respect to uncertified material. Recycled fibres that are not certified in accordance with FSC / PEFC must be covered by EN 643 delivery notes.

If the subcontractor is chain of custody certified:

- Documentation from the furniture manufacturer on the purchase of wood raw material from the CoC-certified subcontractor which shows that the certification requirement of at least 70% certified is fulfilled and that the remaining share is covered by the control schemes (FSC controlled wood / PEFC controlled sources). This must be specified on the invoice / delivery note with certification claim. Recycled fibres that are not certified in accordance with FSC / PEFC must be covered by EN 643 delivery notes. The furniture manufacturer must declare that the wood raw material that fulfils the requirement is used in the Nordic Swan Ecolabelled production.

O37 Energy requirements for wood-based panels

The following applies to energy consumption in the manufacture of:

Chipboard:

No more than 7 MJ/kg per panel can be used in the production of the panel (excluding any surface treatment).

Wood based panels – wet process:

No more than 14 MJ/kg per panel can be used in the production of the panel (excluding any surface treatment).

Other panels:

No more than 11 MJ/kg per panel can be used in the production of the panel (excluding any surface treatment).
A detailed description of how the energy calculation is to be done is given in Appendix 2.

t̄ A calculation showing compliance with the requirement. The calculation must contain information about the quantity of panels produced, electricity and fuel consumed, and which fuel sources have been used.

O38 Emissions to water in wet processes

For panels manufactured with wet processes, the COD emission to water must be maximum 20 g COD/kg product.

t̄ Measurement results for the last 12 months, including information on the sampling program, measurement method and measurement frequency. For processing and analysis methods, see Appendix 1.

4.6 Paper

Paper can form part of the furniture, e.g. paper braids/cords on chairs. Paper is a renewable material, which Nordic Ecolabelling is positive towards. There are other specific requirements for paper included in laminates such as HPL, see chapter 4.7 Laminate.

The requirements apply if paper accounts for more than 5% of the product by weight.

4.6.1 Wood raw materials in the paper

O39 Tree species with restricted use

Nordic Ecolabelling's list of restricted tree species* consist of virgin tree species listed on:

a) CITES (Appendices I, II and III)
b) IUCN red list, categorized as CR, EN and VU
c) Rainforest Foundation Norway´s tree list
d) Siberian larch (originated in forests outside the EU)

Tree species listed on a) CITES (Appendices I, II and III) are not permitted to be used.

Tree species listed on either b), c) or d) may be used if it meets all the following requirements:

- the tree species does not originate from an area/region where it is IUCN red listed, categorized as CR, EN or VU.
- the tree species does not originate from Intact Forest Landscape (IFL), defined in 2002 http://www.intactforests.org/world.map.html.
- the tree species must originate from FSC or PEFC certified forest/plantation and must be covered by a valid FSC/PEFC chain of custody certificate

documented/controlled as FSC or PEFC 100% through the FSC transfer method or PEFC physical separation method.

- tree species grown in plantations shall in addition not originate from plantations established on areas converted from forest after 1994.

**The list of restricted tree species is located on the website: https://www.nordic-swan-ecolabel.org/pulp-paper-declaration-portal/what-can-be-declared/forestry-requirements/*

- Declaration from the applicant/manufacturer/supplier that tree species listed on a-d) are not used.

If species from the lists b), c) or d) is used:

- The applicant/manufacturer/supplier are required to present a valid FSC/PEFC Chain of Custody certificate that covers the specific tree species and demonstrate that the tree is controlled as FSC or PEFC 100% through the FSC transfer method or PEFC physical separation method.
- The applicant/manufacturer/supplier are required to document full traceability back to the forest/certified forest unit thereby demonstrating that;
  - the tree does not originate from an area/region where it is IUCN red listed, categorized as CR, EN or VU;
  - the tree species does not originate from Intact Forest Landscape (IFL), defined in 2002 http://www.intactforests.org/world.webmap.html;
  - for plantations, the applicant/manufacturer/supplier must document that the tree species does not originate from plantations established on areas converted from forest after 1994.

O40 Traceability and certification of wood raw materials

Species name

The supplier/producer of the paper must state the name (species name) of the wood raw materials that is used in the paper.

Chain of custody certification

The manufacturer/supplier of the paper must have a valid Chain of Custody certification under the FSC/PEFC schemes.

Certified wood raw materials

Compliance with one of the following three alternatives is required, on an annual basis:

a) 70% of the fibre raw material in the paper must be certified by the FSC or the PEFC scheme.

b) The paper must be labelled FSC or PEFC Recycled. Alternatively, 70% of the fibre raw material must consist of recycled fibres.

c) If less than 70% of the fibre raw material content in the paper is recycled fibre, the percentage of fibre raw material that must be sourced from certified forests is calculated using the following formula:

Y (%) ≥ 70 - x

Y = Percentage of fibre raw material from certified forests
x = Percentage of recycled fibre

The remaining proportion of wood raw material must be covered by the FSC/PEFC control schemes or be recycled material.

** Recycled material is defined according to ISO 14021 in the categories of pre-consumer and post-consumer, see definitions.*

- The manufacturer/supplier of the paper must state the name (species name) of the wood raw materials used in the paper.
- Valid FSC/PEFC Chain of Custody certification from the manufacturer/supplier of the paper. Manufacturers that only use recycled materials are exempt from this requirement.
- Certified wood fibre option a): The furniture manufacturer must document that paper is purchased from the traceability-certified subcontractor which shows that the certification of at least 70% certified has been met, and that the remainder is covered by requirement the control schemes (FSC controlled wood / PEFC controlled sources). This must be specified on the invoice / delivery note with certification claim.
- Certified wood fibre option b): An invoice between the furniture manufacturer and paper manufacturer showing the purchase of FSC or PEFC Recycled labelled paper. Or a declaration of compliance with the requirement for recycled fibre content from the paper manufacturer. Recycled fibres not covered by FSC/PEFC chain of custody certificates must be covered by delivery notes of paper for recycling in accordance with EN 643.
- Certified wood fibre option c): Paper manufacturer's calculation of the percentage of fibre raw material that is FSC/PEFC certified and recycled, and documentation showing that paper with the certified amount is purchased. This should be specified in e.g. invoices or delivery note.
- The furniture manufacturer must declare that the paper that meets the requirements for certification / recycled share is used in the production of the Nordic Swan Ecolabelled product.

4.6.2 Chemicals in the manufacture of pulp and paper

O41 Chemicals in the manufacture of pulp and paper

Chemicals used in the manufacture of pulp and paper must meet the requirements contained in the Chemical Module for Nordic Ecolabelling of paper, Version 3 or subsequent versions.

- Documentation in compliance with the requirements contained in the Chemicals Module, Version 3.

O42 Organic fluorine compounds

Organic fluorine compounds must not be ingoing substances (see Definitions) in chemicals used in the production of pulp and/or paper.

- A declaration from the manufacturer of pulp and paper that no chemicals containing organofluoride compounds have been added during production of the pulp or paper.

4.6.3 Surface treatment and additives in paper

O43 Antibacterial substances

Chemical products and nanomaterials* with antibacterial or disinfectant properties must not be added to the finished paper or used in surface treatment of the paper.

The term antibacterial means chemical products that prevent or inhibit growth of microorganisms, such as bacteria or fungi. Silver ions, silver nanoparticles, gold nanoparticles and copper nanoparticles are classed as antibacterial agents.

** In accordance with the definition of a nanomaterial adopted by the European Commission (2022/C 229/1), see definitions.*

- A declaration from the manufacturer of the paper showing that no chemical products and nanomaterial with antibacterial or disinfectant properties have been added to the paper or used as a surface treatment.

O44 Classification of chemical products

Chemical products used as surface treatment or added to the finished paper must not contain any of the classifications in the table below.

CLP Regulation 1272/2008		
Hazard class	**Hazard category**	**Hazard code**
Hazardous to the aquatic environment	Aquatic Acute 1 Aquatic Chronic 1 Aquatic Chronic 2 Ozone	H400 H410 H411 H420
Carcinogenicity*	Carc. 1A or 1B Carc. 2	H350 H351
Germ cell mutagenicity*	Muta. 1A or 1B Muta. 2	H340 H341
Toxic for reproduction*	Repr. 1A or 1B Repr. 2 Lact.	H360 H361 H362
Acute toxicity	Acute Tox 1 or 2 Acute Tox 1 or 2 Acute Tox 1 or 2 Acute Tox 3 Acute Tox 3 Acute Tox 3	H300 H310 H330 H301 H311 H331
Specific target organ toxicity with single or repeated exposure	STOT SE 1 STOT RE 1	H370 H372

**Including all combinations of stated exposure route and stated specific effect. For example, H350 also covers the classification H350i.*

Note that responsibility for correct classification lies with the manufacturer.

- A declaration from the chemical manufacturer or supplier.

- A safety data sheet for the product in compliance with current European legislation (Annex II of REACH, Regulation (EC) No. 1907/2006).

O45 Classification of ingoing substances

Ingoing substances (See Definitions) in the chemical products used as surface treatment or added to the finished paper must not contain any of the classifications in the table below:

CLP Regulation 1272/2008		
Hazard class	**Hazard category**	**Hazard code**
Carcinogenic*	Carc. 1A or 1B Carc. 2	H350 H351
Germ cell mutagenic*	Muta. 1A or 1B Muta. 2	H340 H341
Toxic for reproduction*	Repr. 1A or 1B Repr. 2 Lact.	H360 H361 H362

**Including all combinations of stated exposure route and stated specific effect. For example, H350 also covers the classification H350i.*

- A declaration from the chemical manufacturer or supplier.
- A safety data sheet for the product in compliance with current European legislation (Annex II of REACH, Regulation (EC) No. 1907/2006).

O46 Prohibited substances

The following substances shall not be an ingoing substance (See Definitions) in chemical products:

- Substances on the Candidate List*
- Substances that have been evaluated in the EU to be PBT (Persistent, Bioaccumulative and Toxic) or vPvB (very Persistent and very Bioaccumulative)**
- Potential or identified endocrine disruptors, listed in any of the following "Endocrine Disruptor Lists" List I; II and III. Exemptions apply to:
    - IPBC (3-iodo-2-propynyl butylcarbamate, CAS No. 55406-53-6) may be present in the chemical product at a level of not more than 0,2% by weight

Note: Substances moved to "Substances no longer on list" and not present on Lists I-III, are no longer excluded, except for those on sublist II where concern remains. Nordic Ecolabelling will assess these on a case-by-case basis.

- Perfluorinated and polyfluorinated alkylated substances (PFAS)
- Halogenated organic compounds. Exemptions*** for:
    - Bronopol (CAS No. 52–51–7) may be present in the chemical product at a level of not more than 0.05% by weight.
    - Mixture (3:1) of CMIT/MIT (5 chloro-2-methyl-4-isothiazolin-3-one CAS No. 247–500–7; 2-methyl-4-isothiazolin-3-one CAS No. 220–239–6) may be present in the chemical product at a level of not more than 0.0015% by weight.

- IPBC (Iodopropynyl butylcarbamate) may be present in the chemical product at a level of not more than 0.20% by weight.
- Halogenated organic pigments that comply with the Council of Europe recommendation "Resolution AP (89) 1 on the use of colorants in plastic materials coming into contact with food", point 2.5.

**** Perfluorinated and Polyfluorinated alkyl substances are covered by their own bullet and are not included in the exemption.*

- Isothiazolinones may be present in the chemical product at a level of not more than 0.05% by weight
- Butylhydroxytoluene (BHT, CAS No. 128–37–0)
- Aziridine and polyaziridines
- Bisphenol A, S and F
- Alkylphenols, alkylphenol ethoxylates and other alkylphenol derivates****
- Phthalates
- Pigments and additives based on lead, tin, cadmium, chromium VI and mercury, and their compounds
- Volatile aromatic hydrocarbons (VAH). They are permitted in the chemical product as an impurity at a level of not more than 1% by weight

**The Candidate List is available on the ECHA website: http://echa.europa.eu/candidate-list-table*

***PBT and vPvB in accordance with the criteria in Annex XIII of REACH*

*****Alkylphenol derivatives are defined as substances that release alkylphenols when they break down.*

- A declaration from the manufacturer/supplier of the chemical product.
- A safety data sheet for the product in compliance with current European legislation (Annex II of REACH, Regulation (EC) No. 1907/2006).

O47 Nanomaterials

The chemical product used as surface treatment or added to the finished paper must not have nanomaterials* as ingoing substances (See Definitions).

- Pigments**
- Naturally occurring inorganic fillers***
- Unmodified synthetic amorphous silica

** See definitions.*

*** This exception does not include pigments added for purposes other than colour.*
**** This applies to fillers covered by Annex V item 7 of REACH.*

- A declaration from the chemical manufacturer that the chemical product does not contain any nanomaterial.

4.7 Laminate

The requirements in this chapter cover different types of laminate, such as direct pressure laminate (melamine), High Pressure Laminate (HPL), Continuous Pressure Laminate (CPL) and compact laminate. The requirements apply only to the laminate itself, i.e. if a wood-based panel is used as a substrate, the panel must meet the requirements in chapter 4.5. Melamine can alternative also be declared in chapter 4.5 when already attached to a panel.

Adhesives used to secure the laminate to the substrate must meet the requirements in chapter 4.3.1. Any surface treatment must meet the requirements in chapter 4.8 and edgings of plastic must meet the requirements in chapter 4.10.

The criteria for chemicals apply to all chemical products used for the manufacture of laminate, for example, resins. However, the criteria do not apply to chemical products used for the manufacture of paper and for printing patterns on decor paper.

Small parts of laminate such as lists are excluded and do not have to meet the requirements of this chapter except for O49 Antibacterial substances.

O48 Nordic Swan Ecolabelled laminate

If the laminate is Nordic Swan Ecolabelled in accordance with the Nordic Swan Ecolabel criteria for panels and mouldings for interior use, generation 7 or later, the requirements in this chapter are fulfilled. However, all other chapters must still be fulfilled.

- Name, manufacturer and licence number for the laminate.

O49 Antibacterial substances

Chemical products and nanomaterials* with antibacterial or disinfectant properties must not be added to the laminate.

The term antibacterial means chemical products that prevent or inhibit growth of microorganisms, such as bacteria or fungi. Silver ions, silver nanoparticles, gold nanoparticles and copper nanoparticles are classed as antibacterial agents.

** See definitions.*

- A declaration from the manufacturer of the laminate showing that no chemical products and nanomaterials with antibacterial or disinfectant properties have been added to the laminate.

O50 Classification of chemical products

The chemical products used for the manufacture of laminate must not have any of the classifications in the table below.

CLP Regulation 1272/2008		
Hazard class	**Hazard category**	**Hazard code**
Hazardous to the aquatic environment	Aquatic Acute 1 Aquatic Chronic 1 Aquatic Chronic 2 Ozone	H400 H410 H411 H420
Carcinogenicity*	Carc. 1A or 1B Carc. 2	H350 H351

Germ cell mutagenicity*	Muta. 1A or 1B Muta. 2	H340 H341
Toxic for reproduction*	Repr. 1A or 1B Repr. 2 Lact.	H360 H361 H362
Acute toxicity	Acute Tox 1 or 2 Acute Tox 1 or 2 Acute Tox 1 or 2 Acute Tox 3 Acute Tox 3 Acute Tox 3	H300 H310 H330 H301 H311 H331
Specific target organ toxicity with single or repeated exposure	STOT SE 1 STOT RE 1	H370 H372

** Including all combinations of stated exposure route and stated specific effect. For example, H350 also covers the classification H350i.*

Note that responsibility for correct classification lies with the manufacturer.

Exemptions apply to:

- The classifications H341, H301 and H331 for resins containing a maximum of 10% by weight of phenol (CAS No. 108–95–2).
- The classifications H350, H341, H301, H311 and H331 for resins containing formaldehyde (CAS No. 50–00–0). Emissions of formaldehyde from the laminate are regulated in a separate requirement.
- The classifications H301, H311, H331 and H370 for resins containing a maximum of 10% by weight of methanol (CAS No. 67–56–1).
- The classifications H351 and H361 for resins containing melamine (CAS No. 108–78–1).
- The classification H411 for UV-curing products under the following conditions: There must be a controlled closed process where no discharge to drains takes place. Spills and residual waste (e.g., residues from cleaning) must be collected in containers approved for hazardous waste and handled by a waste contractor.

- A declaration from the manufacturer or supplier of the chemical products that are used for the manufacture of laminate.
- Safety data sheet for each chemical product used for the manufacture of laminate in compliance with current European legislation (Annex II of REACH, Regulation (EC) No. 1907/2006).
- Exemption for UV-curing products: Description of the process and how waste and residual waste are handled, including information on who receives the residual waste

O51 Classification of ingoing substances

Ingoing substances (See Definitions) in the chemical product used in the manufacturing of laminate must not have any of the classifications in the table below:

CLP Regulation 1272/2008		
Hazard class	**Hazard category**	**Hazard code**
Carcinogenic*	Carc. 1A or 1B Carc. 2	H350 H351
Germ cell mutagenic*	Muta. 1A or 1B Muta. 2	H340 H341
Toxic for reproduction*	Repr. 1A or 1B Repr. 2 Lact.	H360 H361 H362

**Including all combinations of stated exposure route and stated specific effect. For example, H350 also covers the classification H350i.*

Exemption applies to:

- The classifications H350 and H341 for resins containing formaldehyde (CAS No. 50–00–0). Emissions of formaldehyde are regulated in a separate requirement.
- The classification H341 for resins containing a maximum of 10% by weight of phenol (CAS No. 108–95–2).
- The classifications H351 and H361 for resins containing melamine (CAS No. 108–78–1).
- The classification H361 for 1,1,1-Trimethylolpropane (TMP, CAS No. 77–99–6).

☐ A declaration from the manufacturer or supplier of the chemical products that are used for the manufacture of laminate.

☐ Safety data sheet for each chemical product used for the manufacture of laminate in compliance with current European legislation (Annex II of REACH, Regulation (EC) No. 1907/2006).

O52 Prohibited substances

The following substances must not be an ingoing substance (See Definitions) in chemical products used in the manufacturing of the laminate:

- Substances on the Candidate List*
- Substances that have been evaluated in the EU to be PBT (Persistent, Bioaccumulative and Toxic) or vPvB (very Persistent and very Bioaccumulative)**
- Potential or identified endocrine disruptors, listed in any of the following "Endocrine Disruptor Lists" List I; II and III. Exemptions apply to:
    - IPBC (3-iodo-2-propynyl butylcarbamate, CAS No. 55406-53-6) may be present in the chemical product at a level of not more than 0,2% by weight

Note: Substances moved to "Substances no longer on list" and not present on Lists I-III, are no longer excluded, except for those on sublist II where concern remains. Nordic Ecolabelling will assess these on a case-by-case basis.

- Perfluorinated and polyfluorinated alkylated substances (PFAS)
- Halogenated organic compounds. Exemptions*** for:

- Bronopol (CAS No. 52–51–7) may be present in the chemical product at a level of not more than 0.05% by weight
- Mixture (3:1) of CMIT/MIT (5 chloro-2-methyl-4-isothiazolin-3-one CAS No. 247–500–7; 2-methyl-4-isothiazolin-3-one CAS No. 220–239–6) may be present in the chemical product at a level of not more than 0.0015% by weight
- IPBC (Iodopropynyl butylcarbamate) may be present in the chemical product at a level of not more than 0.20% by weight.

*** *Perfluorinated and Polyfluorinated alkyl substances are covered by their own bullet and are not included in the exemption.*

- Isothiazolinones may be present in the chemical product at a level of not more than 0.05% by weight
- Butylhydroxytoluene (BHT, CAS No. 128–37–0)
- Aziridine and polyaziridines
- Bisphenol A, S and F
- Alkylphenols, alkylphenol ethoxylates and other alkylphenol derivates****
- Phthalates
- Pigments and additives based on lead, tin, cadmium, chromium VI and mercury, and their compounds
- Volatile aromatic hydrocarbons (VAH). They are permitted in the chemical product as an impurity at a level of not more than 1% by weight

**The Candidate List is available on the ECHA website: http://echa.europa.eu/candidate-list-table*

***PBT and vPvB in accordance with the criteria in Annex XIII of REACH*

*****Alkylphenol derivatives are defined as substances that release alkylphenols when they break down.*

- ☐ A declaration from the manufacturer/supplier of the chemical product.
- ☐ A safety data sheet for the product in compliance with current European legislation (Annex II of REACH, Regulation (EC) No. 1907/2006).

O53 Nanomaterials

The chemical product must not have nanomaterials* as ingoing substances (See Definitions). Exemptions apply to:

- Pigments**
- Naturally occurring inorganic fillers***
- Unmodified synthetic amorphous silica

* *See definitions.*

** *This exception does not include pigments added for purposes other than colour.*
*** *This applies to fillers covered by Annex V item 7 of REACH.*

- ☐ A declaration from the chemical manufacturer that the chemical product does not contain any nanomaterial.

O54 Requirements for emissions

Laminate must comply with the requirements for emissions of VOC and formaldehyde in the table below. The test must be performed in compliance with EN 16516.

Substances or groups of substances	**EN 16516** Loading factor 1 m^2/m^3*
TVOC (C6–C16)	1,160 mg/m^3 or (160 $\mu g/m^3$)
SVOC (C16–C23)	0,03 mg/m^3 or (30 $\mu g/m^3$)
Formaldehyde	0,03 mg/m^3 or (30 $\mu g/m^3$)

** If the limit values in the table can be reached in a shorter time than 28 days, this is also accepted.*

Alternatively, compliance with only the requirement for emissions of formaldehyde can be chosen for direct pressure laminate (melamine). It is the finished coated panel material that must be tested and one of the following limit values must be met:

a) The emission of formaldehyde must on average not exceed 0.062 mg/m^3 air according to test method EN 717–1.

b) The emission of formaldehyde must on average not exceed 0.099 mg/m^3 air according to test method EN 16516 (loading factor Loading factor 1 m^2/m^3).

c) The emission of formaldehyde must on average not exceed 0.124 mg/m^3 air according to test method EN 16516 (loading factor 1,8 m^2/m^3).

t̄ Analysis report, including measurement methods, results, and measurement frequency. It must be clearly stated which method/standard was used, the laboratory that conducted the analysis, and that the analysis laboratory is an independent third party. Other analysis methods than those stated in the requirement may be used, provided that the correlation between test methods can be verified by an independent third party.

4.7.1 Requirement when laminates make up more than 10% by weight of the furniture/fitment

O55 Energy consumption in the manufacture of laminate

No more than 14 MJ/kg per panel may be used for the manufacture of the laminate.
The energy consumption must be stated as an annual average and can either be stated for the manufacture of the laminate that must be included in the Nordic Swan Ecolabelled furniture/fitment, or for the entire production.

Energy for the production of raw materials must not be included in the calculation. Paper has a separate energy requirement.

Internally produced energy and excess energy that are sold off must be stated but must not be included as consumed energy in the calculation.

For detailed information on how the energy calculation is to be done, see Appendix 2.

t̄ Calculation of energy consumption from the laminate manufacturer.

4.7.2 Requirement when laminates make up more than 30% by weight of the furniture/fitment

The requirements for paper in this section only apply to kraft paper. It is not necessary for decor paper and any balance paper to meet the requirements.

Nordic Ecolabelling has produced a calculation sheet for requirement O59 (Energy). This can be used to calculate and document the requirement. Pulp that has been inspected in accordance with the Nordic Swan Ecolabel Base Module for paper automatically meets the requirements for pulp in this section. However, it must be shown that the cumulative pulp and paper production also meets the requirements.

O56 Tree species with restricted use

Nordic Ecolabelling's list of restricted tree species* consist of virgin tree species listed on:

a) CITES (Appendices I, II and III)

b) IUCN red list, categorized as CR, EN and VU

c) Rainforest Foundation Norway´s tree list

d) Siberian larch (originated in forests outside the EU)

Tree species listed on a) CITES (Appendices I, II and III) are not permitted to be used.

Tree species listed on either b), c) or d) may be used if it meets all the following requirements:

- the tree species does not originate from an area/region where it is IUCN red listed, categorized as CR, EN or VU.
- the tree species does not originate from Intact Forest Landscape (IFL), defined in 2002 http://www.intactforests.org/world.map.html.
- the tree species must originate from FSC or PEFC certified forest/plantation and must be covered by a valid FSC/PEFC chain of custody certificate documented/controlled as FSC or PEFC 100% through the FSC transfer method or PEFC physical separation method.
- tree species grown in plantations shall in addition not originate from plantations established on areas converted from forest after 1994.

**The list of restricted tree species is located on the website: https://www.nordic-swan-ecolabel.org/pulp-paper-declaration-portal/what-can-be-declared/forestry-requirements/*

- Declaration from the applicant/manufacturer/supplier that tree species listed on a-d) are not used.

If species from the lists b), c) or d) is used:

- The applicant/manufacturer/supplier are required to present a valid FSC/PEFC Chain of Custody certificate that covers the specific tree species and demonstrate that the tree is controlled as FSC or PEFC 100% through the FSC transfer method or PEFC physical separation method.
- The applicant/manufacturer/supplier are required to document full traceability back to the forest/certified forest unit thereby demonstrating that;
  - the tree does not originate from an area/region where it is IUCN red listed, categorized as CR, EN or VU;

- the tree species does not originate from Intact Forest Landscape (IFL), defined in 2002 https://intactforests.org/world.webmap.html
- for plantations, the applicant/manufacturer/supplier must document that the tree species does not originate from plantations established on areas converted from forest after 1994.

O57 Wood fibre in paper

Where paper is used in the manufacture of laminate, the following requirements must be met:

- The names of the species of trees used to produce the paper must be stated. Species of trees on the Nordic Swan Ecolabel's list of prohibited tree species* (https://www.nordic-swan-ecolabel.org/pulp-paper-declaration-portal/what-can-be-declared/forestry-requirements/) must not be used. The requirement applies to new fibres only and not to recycled fibres*.
- The paper producers must be Chain of Custody certified by the FSC scheme or the PEFC scheme.
- Compliance with one of the following three alternatives is required, on an annual basis, for certified wood fibre and/or recycled fibres:

a) 70% of the fibre raw material in the paper must be certified by the FSC or the PEFC scheme.

b) The paper must be labelled FSC or PEFC Recycled. Alternatively, 70% of the fibre raw material must consist of recycled fibres.

c) If less than 70% of the fibre raw material content in the paper is recycled fibre, the percentage of fibre raw material that must be sourced from certified forests is calculated using the following formula:

$$Y\ (\%) \geq 70 - x$$

Y = Percentage of fibre raw material from certified forests
x = Percentage of recycled fibre

**Recycled material defined as pre-consumer and post-consumer in accordance with ISO 14021. See detailed information in Definitions.*

- Information about names of the tree species used.
- Valid FSC/PEFC Chain of Custody certificate/link to certificate holder's valid certificate information in FSC/PEFC certificate database from the producer/supplier of paper. Manufacturers that only use recycled materials are exempt from this requirement.
- Certified wood fibre option a): An invoice between the paper manufacturer and laminate manufacturer showing the purchase of FSC/PEFC certified paper.
- Certified wood fibre option b): An invoice between the paper manufacturer and laminate manufacturer showing the purchase of FSC or PEFC Recycled labelled paper. Or a declaration of compliance with the requirement for recycled fibre content from the paper manufacturer. Recycled fibres not covered by FSC/PEFC chain of custody certificates must be covered by delivery notes of paper for recycling in accordance with EN 643.

- Certified wood fibre option c): Paper manufacturer's calculation of the percentage of fibre raw material that is FSC/PEFC certified and recycled, and documentation showing that paper with the certified amount is purchased. This should be specified in e.g. invoices or delivery note.

O58 Emissions of COD from paper and pulp production

The total discharge of COD (chemical oxygen demand) to water must be less than the COD value in the table below.
COD is calculated by adding COD emissions from the pulp and paper:

COD pulp (kg/ADt) + COD emissions from the paper machines (kg/ADt).

For paper produced from mixes of chemical pulp, recycled fibres and mechanical pulp, a weighted reference value of the different types of pulp is calculated. In the weighted calculation, the proportion of COD emissions from the paper machine must be set to 1 kg / ADT. For example, with 60% unbleached chemical mass and 40% return mass, the calculation is: (14-1 x 0.6) + (4-1 x 0.4) = 7.8 + 1.2 = 9.0 kg / ADT.

Types of pulp	Total emission of COD for both pulp and paper (kg/ADt)
Unbleached chemical pulp	14.0
CTMP pulp	19.0
TMP/Groundwood pulp	7.0
Recycled fibre pulp	4.0

- Information about the types of pulp used for the manufacture of paper.
- If pulp that is inspected in accordance with the Nordic Swan Ecolabelled basic module for paper is used: Description of manufacturer, production facility and name of the pulp.
- Description of test procedures including measuring methods and measuring results for the last 12 months from the paper and pulp manufacturers.
- Calculation from the paper and pulp manufacturers showing that the total emission of COD is below the relevant threshold limit value in the requirement.

O59 Energy consumption in paper and pulp production

The following requirements must be met:

$P_{electricity(total)} < 2.5$

$P_{fuel(total)} < 2.5$

For paper comprising solely of TPM/GW produced on-site, the limit value for $P_{fuel(total)}$ is 1.25

P is the energy score for the paper and pulp production. The energy score from both the production of paper and the pulps are included in $P_{electricity(total)}$ and $P_{fuel(total)}$. A more detailed explanation of the calculation is given in Annex 3.

- If pulp that is inspected in accordance with the Nordic Swan Ecolabelled basic module for paper is used: Description of manufacturer, production facility and name of the pulp.

- A calculation from the paper and pulp manufacturers showing compliance with the limit values for the score. Please note that there has been developed a calculation sheet for the energy calculations that can be obtained by Nordic Ecolabelling.

4.8 Surface treatment of wood, wood-based panels and laminate

The requirements in this section relate to surface treatment of wood, bamboo, wood-based panels and laminate.

O60 Antibacterial substances

Chemical products and nanomaterials* with antibacterial or disinfectant properties must not be used in surface treatment.

The term antibacterial means chemical products that prevent or inhibit growth of microorganisms, such as bacteria or fungi. Silver ions, silver nanoparticles, gold nanoparticles and copper nanoparticles are classed as antibacterial agents.

** See definitions.*

- A declaration from the manufacturer of the chemical products that are used in the surface treatment/surface treatment system.

O61 Classification of chemical products

The chemical products used for surface treatment must not have any of the classifications in the table below.

CLP Regulation 1272/2008		
Hazard class	**Hazard category**	**Hazard code**
Hazardous to the aquatic environment	Aquatic Acute 1 Aquatic Chronic 1 Aquatic Chronic 2 Ozone	H400 H410 H411 H420
Carcinogenicity*	Carc. 1A or 1B Carc. 2	H350 H351
Germ cell mutagenicity*	Muta. 1A or 1B Muta. 2	H340 H341
Toxic for reproduction*	Repr. 1A or 1B Repr. 2 Lact.	H360 H361 H362
Acute toxicity	Acute Tox 1 or 2 Acute Tox 1 or 2 Acute Tox 1 or 2 Acute Tox 3 Acute Tox 3 Acute Tox 3	H300 H310 H330 H301 H311 H331
Specific target organ toxicity with single or repeated exposure	STOT SE 1 STOT RE 1	H370 H372

**Including all combinations of stated exposure route and stated specific effect. For example, H350 also covers the classification H350i.*

Note that responsibility for correct classification lies with the manufacturer.

*Exemption applies to UV curing surface treatment products classified as environmentally hazardous if requirement O64 is met.

- Safety data sheet for each chemical product used in the surface treatment/surface treatment system in compliance with current European legislation (Annex II of REACH, Regulation (EC) No. 1907/2006).
- A declaration from the manufacturer of the chemical products that are used in the surface treatment/surface treatment system.

O62 UV curing surface treatment system

UV curing surface treatment products must be applied to the material during a controlled closed process where no discharge to recipient occurs. Spills and residual waste (e.g. residues from cleaning) must be collected in containers that are approved for hazardous waste and handled by a waste contractor.

- Description of the process and how waste and residual waste are handled, including information about who receives the wastes.

O63 Classification of ingoing substances

Ingoing substances (see Definition) in the chemical product that is used for the surface treatment must not have the classifications in the table below:

CLP Regulation 1272/2008		
Hazard class	**Hazard category**	**Hazard code**
Carcinogenic*	Carc. 1A or 1B Carc. 2	H350 H351
Germ cell mutagenic*	Muta. 1A or 1B Muta. 2	H340 H341
Toxic for reproduction*	Repr. 1A or 1B Repr. 2 Lact.	H360 H361 H362

**Including all combinations of stated exposure route and stated specific effect. For example, H350 also covers the classification H350i.*

Exemptions apply to:

- The classification H351, H341 or H361 for photo initiators.
- The classification H361 for 1,1,1-Trimethylolpropane (TMP, CAS No. 77–99–6).
- The classification H351 for trimethylolpropane triacrylate (TMPTA, CAS No. 15625–89–5).
- The classification H361 for mequinol (CAS No. 150–76–5).
- The hardener in 2-component UV products can be exempted from the requirement if the following is met: it must be documented that the workers are not exposed to the components, e.g. by using safety equipment when mixing or that the mixing takes place automatically without exposure of the workers and that the application of the finished two-component system is done in a closed system.

- Safety data sheet for each chemical product used in the surface treatment/surface treatment system in compliance with current European legislation (Annex II of REACH, Regulation (EC) No. 1907/2006).

- A declaration from the manufacturer of the chemical product(s) used in the surface treatment.
- Exemption for two-component products: description of the application system and how workers are protected from exposure.

O64 Prohibited substances

The following substances must not be an ingoing substance (see Definitions) in chemical products:

- Substances on the Candidate List*
- Substances that have been evaluated in the EU to be PBT (Persistent, Bioaccumulative and Toxic) or vPvB (very Persistent and very Bioaccumulative)**
- Potential or identified endocrine disruptors, listed in any of the following "Endocrine Disruptor Lists" List I; II and III. Exemptions apply to:
    - IPBC (3-iodo-2-propynyl butylcarbamate, CAS No. 55406-53-6) may be present in the chemical product at a level of not more than 0,2% by weight.

Note: Substances moved to "Substances no longer on list" and not present on Lists I-III, are no longer excluded, except for those on sublist II where concern remains. Nordic Ecolabelling will assess these on a case-by-case basis.

- Perfluorinated and polypluorinated alkylated substances (PFAS)
- Halogenated organic compounds. Exemptions*** for:
    - Bronopol (CAS No. 52–51–7) may be present in the chemical product at a level of not more than 0.05% by weight
    - Mixture (3:1) of CMIT/MIT (5 chloro-2-methyl-4-isothiazolin-3-one CAS No. 247–500–7; 2-methyl-4-isothiazolin-3-one CAS No. 220–239–6) may be present in the chemical product at a level of not more than 0.0015% by weight
    - IPBC (Iodopropynyl butylcarbamate) may be present in the chemical product at a level of not more than 0.20% by weight.
    - Halogenated organic pigments that comply with the Council of Europe recommendation "Resolution AP (89) 1 on the use of colorants in plastic materials coming into contact with food", point 2.5.

*** *Perfluorinated and Polyfluorinated alkyl substances are covered by their own bullet and are not included in the exemption.*

- Isothiazolinones may be present in the chemical product at a level of not more than 0.05% by weight
- Butylhydroxytoluene (BHT, CAS No. 128–37–0)
    - An exemption is given for BHT inUV curing lacquers and paints. If BHT is given a harmonized official classification so that the substance does not meet the requirements of the criteria document, the exemption will no longer be valid.
- Aziridine and polyaziridines****
- Bisphenol A*****, S and F
- Alkylphenols, alkylphenol ethoxylates and other alkylphenol derivates******
- Phthalates

- Pigments and additives based on lead, tin, cadmium, chromium VI and mercury, and their compounds
- Volatile aromatic hydrocarbons (VAH). They are permitted in the chemical product as an impurity at a level of not more than 1% by weight

**The Candidate List is available on the ECHA website: http://echa.europa.eu/candidate-list-table*

***PBT and vPvB in accordance with the criteria in Annex XIII of REACH.*

*****Exemption is given for aziridine/polyaziridine if the substance is not classified as carcinogenic, mutagenic or toxic for reproduction from any manufacturer or in ECHA.*

******Bisphenol A used in the production of epoxy acrylate is not covered by the requirement.*

*******Alkylphenol derivatives are defined as substances that release alkylphenols when they break down.*

- A declaration from the manufacturer/supplier of the chemical product used for surface treatment.
- A safety data sheet for the product used for surface treatment in compliance with current European legislation (Annex II of REACH, Regulation (EC) No. 1907/2006.

O65 Nanomaterials

The chemical product used for surface treatment must not contain nanomaterials* as ingoing substances (see Definitions). Exemptions are made for:

- Pigments**
- Naturally occurring inorganic fillers***
- Unmodified synthetic amorphous silica

** See definitions.*
*** This exception does not include pigments added for purposes other than colour.*
**** This applies to fillers covered by Annex V item 7 of REACH.*

- A declaration from the chemical manufacturer that the chemical product does not have nanomaterial as ingoing substance.

O66 Free formaldehyde

The content of free formaldehyde in each individual chemical product used for surface treatment must not exceed 0.2% by weight (2000 ppm).

- A declaration from the manufactures of the chemical products in the surface treatment system.

4.8.1 Requirement if surface coated parts make up more than 5% by weight of the furniture/fitment

O67 Quantity applied and application method

For each surface treatment system used, the furniture manufacturer must provide the following information:

a) Name of the surface treatment product and its manufacturer.

b) Quantity applied (g/m^2), number of coats and application method(s) used.

The following efficiency* levels must be used when calculating the quantities of applied environmentally hazardous substances and VOCs in subsequent requirements:

- Automated spray with no recycling, 50%
- Automated spray with recycling, 70%
- Spray application, electrostatic, 65%
- Spray application, bell/disk, 80%
- Roller varnishing 95%
- Blanket varnishing 95%
- Vacuum varnishing 95%
- Dipping 95%
- Rinsing 95%

**The levels of efficiency are standard values. Other efficiency levels may be applied if they can be documented.*

† A description from the furniture manufacturer of each surface treatment system that is used.

O68 Quantity of applied volatile organic compounds (VOC)

Chemical product:

The chemical products that are used must meet one of the following 3 alternatives (a-c) in each surface treatment system:

a) The total content of VOCs* must not exceed 5% by weight or

b) The total amount of VOCs applied must not exceed the relevant threshold limit value in the table below:

Type of furniture	Threshold limit value for VOC applied (g/m^2 coated surface)
Furniture coated with laminate	10
Furniture and interior doors intended for domestic use	30
Furniture and interior doors intended for non-domestic use	60
Kitchen and bathroom fitments	60

**Volatile organic compounds (VOCs) are defined as compounds with a boiling point of <250°C at 101.3 kPa (1 atm).*

The applied quantity of VOCs according to alternative b) is calculated using the following formula:

$$\frac{\text{Applied amount of the surface treatment chemical } \left(\frac{g}{m^2}\right) x \text{ share of VOC in the surface treatment chemical (\%)}}{\text{Efficiency of the surface treatment (\%)}}$$

Alternative to b) analyse according to ISO 11890.

For both alternative a) and b), it is the content of VOCs that the chemical products have in their uncured form that must meet the requirement. If the products require dilution, the calculation must be based on the content in the diluted product.

c) VOC emissions from the finished furniture:

VOC emissions from the finished furniture must meet the limit value in the table below. Test conditions are also given in the table. Packaging and delivery of samples sent for analysis, handling and processing of these, climate chamber requirements and methods for gas analysis must follow the procedures described in the ISO 16000 standard series or equivalent test methods.

Chamber volume	**Between 1 and 10 m^3**
Loading rate	0,5–1,5 m^2/m^3
Ventilation rate	0,5–1,5 t-1
VOC (28 days)	≤450 $\mu g/m^3$

Limit value after 28 days according to EN 16516. If the limit values in the table are met for a period shorter than 28 days, this is accepted.

- Safety data sheet in accordance with Appendix II of REACH (Regulation No. (EC) 1907/2006) for each chemical product in the surface treatment system.
- A declaration from the manufacturers of the chemical products in the surface treatment system stating the quantities of VOCs in each product.
- A calculation from the furniture manufacturer showing that alternative b) in the requirement is met if the surface treatment system does not meet alternative a). Alternative to b) test report according to ISO 11890.
- Furniture: Test report from chamber test according to ISO16000. If the test result is obtained before 28 days, the requirement is considered fulfilled.

4.9 Metal – Steel and aluminium

Requirements apply to surface treatment and production of steel and aluminium. The chemical requirements only apply to the chemical products used for the surface treatment and not constituent substances, such as alloying metals, in the metal.

Production requirements for steel and aluminium apply if the metals are included in the product with more than 30% by weight and 10% by weight, respectively. Small parts such as screws, bolts, plugs, fittings, buttons, zippers and so on are excluded from weighing and should not be included in the weight calculation.

Small parts consisting of metal and weighing less than 100 grams are also exempt from all requirements in this chapter except requirement O69.

The requirements of this chapter do not apply to metal that is part of electric or electronic components.

O69 Copper, tin, lead and cadmium

The metals copper, tin, lead, and cadmium are prohibited. This also applies to any surface coating.

- A declaration from the supplier of the surface coating stating that these substances are not used.

4.9.1 Surface treatment and metallisation

Metal coating, such as metallisation, powder coating and any other surface treatment must meet the following requirements.

- Coatings with metals (metallisation) must comply with O70.
- Other surface treatment must comply with O71–O77.

O70 Chrome, nickel, and zinc plating

Surface treatment with chromium (Cr), nickel (Ni), zinc (Zn) and their compounds is only permitted for the following furniture parts and under the following conditions:

- Screws, bolts, mechanisms where it is necessary due to excessive physical wear/load, such as drawers.
- Legs on folding tables, chair legs and legs on tables/desks that comply with the requirements of standards for educational institutions (EN 1729–1, EN 1729–2).
- Legs on folding tables and chair legs that meet standards for tables and chairs for public spaces (EN 16139, EN 1728, EN 1022).
- Nickel: The exemption does not apply to parts that frequently come into contact with the skin.

It should be noted that the above exemptions only apply to the types of furniture covered by the standards. The exemption cannot be used for office chairs and other typical office furniture that are covered by standards for office environments.

The following requirement applies when chromium (Cr), nickel (Ni), zinc (Zn) is used in the surface treatment:

- All stages of the process using chromium must be based on trivalent chromium. Hexavalent chromium must not be used.
- The facilities must have a closed-loop wastewater system*. Residual products from the surface treatment are to be handled at a facility that is licensed and authorised to handle hazardous waste.
- The following applies to zinc electroplating:
  - Cyanide baths must not be used
  - The passivation process must be cobalt-free

** A closed-loop wastewater system means that effluent is not discharged to municipal wastewater treatment plants or recipient.*

- A description from the furniture manufacturer of which parts are coated with chromium, nickel or zinc.
- A declaration from the supplier of the surface coating that hexavalent chromium has not been used.

- For zinc: A declaration from the supplier of the surface coating that cyanide baths have not been used, and that the passivation process is cobalt-free.
- Name of the waste management facility handling the waste products.

4.9.2 Other surface treatment

O71 Classification of chemical products

The chemical products used to surface coat metals must not contain any of the classifications in the table below.

CLP Regulation 1272/2008		
Hazard class	**Hazard category**	**Hazard code**
Hazardous to the aquatic environment	Aquatic Acute 1 Aquatic Chronic 1 Aquatic Chronic 2 Ozone	H400 H410 H411 H420
Carcinogenicity*	Carc. 1A or 1B Carc. 2	H350 H351
Germ cell mutagenicity*	Muta. 1A or 1B Muta. 2	H340 H341
Toxic for reproduction*	Repr. 1A or 1B Repr. 2 Lact.	H360 H361 H362
Acute toxicity	Acute Tox 1 or 2 Acute Tox 1 or 2 Acute Tox 1 or 2 Acute Tox 3 Acute Tox 3 Acute Tox 3	H300 H310 H330 H301 H311 H331
Specific target organ toxicity with single or repeated exposure	STOT SE 1 STOT RE 1	H370 H372
Respiratory sensitization	Resp. Sens 1, 1A or 1B	H334

**Including all combinations of stated exposure route and stated specific effect. For example, H350 also covers classification H350i.*

Note that responsibility for correct classification lies with the manufacturer.

- Safety data sheet in accordance with Appendix II of REACH (Regulation No. (EC) 1907/2006) for each chemical product in the surface treatment system.
- A declaration from the manufacturers of surface treatment products.

O72 Classification of ingoing substances

Ingoing substances (see Definitions) in the chemical product used for surface treatment must not have any of the classifications in the table below.

CLP Regulation 1272/2008		
Hazard class	**Hazard category**	**Hazard code**
Carcinogenic*	Carc. 1A or 1B Carc. 2	H350 H351
Germ cell mutagenic*	Muta. 1A or 1B Muta. 2	H340 H341
Toxic for reproduction*	Repr. 1A or 1B Repr. 2 Lact.	H360 H361 H362

**Including all combinations of stated exposure route and stated specific effect. For example, H350 also covers classification H350i.*

Exemptions apply to:

- The classification H361 for 1,1,1-Trimethylolpropane (TMP, CAS No. 77–99–6).

† Safety data sheet in accordance with Appendix II of REACH (Regulation No. (EC) 1907/2006) for each chemical product in the surface treatment system.

† A declaration from the manufacturers of surface treatment products.

O73 Prohibited substances

The following substances must not be an ingoing substance (See Definitions) in chemical products used for surface treatment:

- Substances on the Candidate List*
- Substances that have been evaluated in the EU to be PBT (Persistent, Bioaccumulative and Toxic) or vPvB (very Persistent and very Bioaccumulative)**
- Potential or identified endocrine disruptors, listed in any of the following "Endocrine Disruptor Lists" List I; II and III. Exemptions apply to:
    - IPBC (3-iodo-2-propynyl butylcarbamate, CAS No. 55406-53-6) may be present in the chemical product at a level of not more than 0,2% by weight.

Note: Substances moved to "Substances no longer on list" and not present on Lists I-III, are no longer excluded, except for those on sublist II where concern remains. Nordic Ecolabelling will assess these on a case-by-case basis.

- Perfluorinated and polyfluorinated alkylated substances (PFAS)
- Halogenated organic compounds. Exceptions*** for:
    - Bronopol (CAS No. 52–51–7) may be present in the chemical product at a level of not more than 0.05% by weight.
    - Mixture (3:1) of CMIT/MIT (5 chloro-2-methyl-4-isothiazolin-3-one CAS No. 247–500–7; 2-methyl-4-isothiazolin-3-one CAS No. 220–239–6) may be present in the chemical product at a level of not more than 0.0015% by weight.
    - IPBC (Iodopropynyl butylcarbamate) may be present in the chemical product at a level of not more than 0.20% by weight.
    - Halogenated organic pigments that comply with the Council of Europe recommendation "Resolution AP (89) 1 on the use of colorants in plastic materials coming into contact with food", point 2.5.

**** Perfluorinated and Polyfluorinated alkyl substances are covered by their own bullet and are not included in the exemption.*

- Isothiazolinones may be present in the chemical product at a level of not more than 0.05% by weight
- Butylhydroxytoluene (BHT, CAS No. 128–37–0)
- Aziridine and polyaziridines
- Bisphenol A****, S and F
- Alkylphenols, alkylphenol ethoxylates and other alkylphenol derivates*****
- Phthalates
- Pigments and additives based on lead, tin, cadmium, chromium VI and mercury, and their compounds
- Volatile aromatic hydrocarbons (VAH). They are permitted in the chemical product as an impurity at a level of not more than 1% by weight

** The Candidate List is available on the ECHA website: http://echa.europa.eu/candidate-list-table*

*** PBT and vPvB in accordance with the criteria in Annex XIII of REACH*

***** Exemption is given for bisphenol A as a residual monomer in powder coating.*

****** Alkylphenol derivatives are defined as substances that release alkylphenols when they break down.*

☐ A declaration from the manufacturer/supplier of the chemical product used for surface treatment.

☐ A safety data sheet for the product used for surface treatment in compliance with current European legislation (Annex II of REACH, Regulation (EC) No. 1907/2006.

O74 Nanomaterial

The chemical product must not contain nanomaterials* as ingoing substances (See Definitions). Exemptions apply to:

- Pigments**
- Naturally occurring inorganic fillers***
- Unmodified synthetic amorphous silica
- Aluminium oxide

** See definitions.*

*** This exception does not include pigments added for purposes other than colour.*
**** This applies to fillers covered by Annex V item 7 of REACH.*

☐ A declaration from the manufacturer of the chemical product(s) used in the surface treatment that the chemical product does not contain any nanomaterial.

O75 Free formaldehyde

The content of free formaldehyde in each individual chemical product used for surface treatment must not exceed 0.2% by weight (2,000 ppm).

- A declaration from the manufactures of the chemical products in the surface treatment system.

O76 Quantity applied and application method

The requirement applies if the surface-treated metal part makes up more than 5% by weight of the furniture/fitment.

For each surface treatment used, the following information must be provided by the furniture manufacturer:

- Name of the surface treatment product and manufacturer of the surface treatment product
- Quantity applied (g/m^2), number of coats and application method(s) used.*

The following levels of efficiency must be used when calculating the quantities of applied VOCs in subsequent requirement:

- Automated spray with no recycling, 50%
- Automated spray with recycling, 70%
- Spray application, electrostatic, 65%
- Spray application, bell/disk, 80%
- Roller varnishing 95%
- Blanket varnishing 95%
- Vacuum varnishing 95%
- Dipping 95%
- Rinsing 95%

The levels of efficiency are standard values. Other efficiency levels may be applied if they can be documented.

** The amount of application and the number of layers is not necessary to state for powder coating.*

- A description from the furniture manufacturer of each surface treatment system that is used.

O77 Quantity of applied volatile organic compounds (VOC)

The requirement applies if the surface-treated metal part makes up more than 5% by weight of the furniture/fitment.

The chemical products that are used must meet one of the following alternatives in each surface treatment system:

a) The total content of VOCs* must not exceed 5% by weight

b) The total amount of VOCs applied must not exceed 30g/m^2 treated surface

The applied quantity of VOCs according to alternative b) is calculated using the following formula:

$$\frac{\text{Applied amount of the surface treatment chemical } \left(\frac{\text{g}}{m^2}\right) x \text{ share of VOC in the surface treatment chemical (\%)}}{\text{Efficiency of the surface treatment (\%)}}$$

For both these alternatives, it is the content of VOCs that the chemical products have in their uncured form that must meet the requirement. If the products require dilution, the calculation must be based on the content in the diluted product.

**Volatile organic compounds (VOCs) are defined as compounds with a boiling point of <250°C at 101.3 kPa (1 atm).*

- Safety data sheet in accordance with Appendix II of REACH (Regulation No. (EC) 1907/2006) for each chemical product in the surface treatment system.
- A declaration from the manufacturers of the chemical products in the surface treatment system stating the quantities of VOCs in each product.
- A calculation from the furniture manufacturer showing that alternative b) in the requirement is met if the surface treatment system does not meet alternative a).

4.9.3 Production of metal

Separate requirements are set for the production of steel and the production of aluminium. The requirements can either be met by having a high proportion of recycled steel or aluminium, or by meeting requirements for virgin steel production and primary aluminium production.

O78 Production of steel

The requirement applies if steel is included with more than 30% by weight in the product.

The requirement can be met by documenting either A) High proportion recycled or B) Virgin steel production (B consist of 3 alternatives):

A) High proportion recycled

At least 75% by weight of the steel must be recycled.

Recycled steel is defined as both pre- and post-consumer, according to definitions in ISO 14021.

The requirement can be verified either by:

- A signed agreement between the steel supplier and the manufacturer of the Nordic Swan Ecolabelled product stating that the requirement is met, or
- eBVD or EPD based on product-specific data/data from the steel producer´s own production specifically stating the content of recycled steel in the product.

or

B) Virgin steel production

The requirement can be met by one of the 3 alternatives (1–3) below:

The requirement can be verified using either: direct traceability through the supply chain, mass balance approach[2] or by all major suppliers[3].

1. Steel produced from traditional methods

Steel used in the Nordic Swan Ecolabelled product comes from a steel producer who:

- has implemented at least 2 of the energy efficiency measures stated as BAT in the BREF document for iron and steel production (2013 or later version). The energy efficiency measures are listed in Table 1 in Appendix 4, and
- has an active sustainability strategy focusing on reducing energy consumption and greenhouse gas emissions. The strategy for reducing energy consumption and greenhouse gas emissions shall be quantitative and time-based, and they shall be determined by the company management.

or

2. Steel production – Responsible steel certified production site

A minimum of 50% by weight of the steel used in the Nordic Swan Ecolabelled product comes from a production site that are certified according to the standard Responsible Steel[4], version 1.0, 2019 or later versions.

or

3. Steel production based on new technologies with reduced greenhouse gas emissions

Steel used in the Nordic Swan Ecolabelled product comes from steel production sites that have implemented one of the following technologies:

- blast furnace top gas recycling with carbon capture and storage
- direct smelting reduction processes
- hydrogen steelmaking in shaft furnaces using green H2
- direct electrolysis of iron ore

Recycled steel (A):

Alternative 1:

- Signed agreement/declaration between the steel supplier and the manufacturer of the Nordic Swan Ecolabelled product stating that the requirement is met. The declaration from the steel supplier can be based on purchase records/average data from several steel suppliers, or

[2] In case of several potential steel producers, the supplier of the metal components can verify the requirement by using a mass balance approach if there is an account documenting the annual volumes purchased from the individual steel producers. The volumes must correspond to volumes sold to the producer of Nordic Swan Ecolabelled product (e.g., cannot sell a larger volume than the corresponding quantity purchased from the individual steel producers).

[3] All major suppliers are compliant with one of the 3 alternatives. Major suppliers are here defined as suppliers delivering 75% of the total volume (w/w) of steel components in the Nordic Swan Ecolabelled product.

[4] Overview of certified steel producers, https://www.responsiblesteel.org/certification/issued-certificates/

Alternative 2:

- eBVD or EPD based on product-specific data/data from the steel producer´s own production stating the content of recycled steel in the product.

Virgin steel production (B):

Alternative 1:

- Enclose latest sustainability strategy report or equivalent documentation from the steel producer showing fulfilment of the requirement. The steel producer can also present specific targets from annual business report with reference to specific numbers and assumptions. Average numbers from steel producers with several steel melting plants is accepted.
- Description of which energy efficiency measures stated as BAT have been implemented at the production site.
- Information on type of traceability used to document the requirement.

Alternative 2:

- Enclose valid Responsible Steel certificate from the steel producer.
- Information from the supplier/manufacturer of the constituent steel part about which metal parts are from certified metal production (purchase records).
- Information from the supplier/manufacturer of the constituent steel parts on type of traceability used to document the requirement.
- Documentation from the manufacturer of the Nordic Swan Ecolabelled product that the requirement for share of purchased steel from certified steel producers is fulfilled – e.g., invoices or other documentation from suppliers.

Alternative 3:

- State the name of the steel producer and production site where the steel comes from, as well as a brief description of which technology is used.
- Information on type of traceability used to document the requirement.

O79 Production of aluminium

The requirement applies if aluminium is included with more than 10% by weight in the product.

The requirement can be met by documenting either A) High proportion recycled or B) Primary aluminium production. (B consist of 4 alternatives):

A) High proportion recycled

A minimum of 75% by weight of aluminium must be recycled.

Recycled aluminium is defined as both pre- and post-consumed, cf. definition in ISO 14021.

The requirement can be verified either by:

- A signed agreement between the aluminium supplier and the manufacturer of the Nordic Swan Ecolabelled product stating that the requirement is met, or

- eBVD or EPD based on product-specific data/data from the aluminium producer´s own production specifically stating the content of recycled aluminium in the product, or
- Valid Hydro Circal certificate.

or

B) Primary aluminium production

The requirement can be met by one of the 4 alternatives (1–4) below:

The requirement can be verified using either: direct traceability through the supply chain, mass balance approach[5] or by all major suppliers[6].

1. Aluminium production – active sustainability strategy

Aluminium used in the Nordic Swan Ecolabelled product comes from a primary aluminium producer who has an active sustainability strategy focusing on reducing energy consumption and greenhouse gas emissions. The strategy for reducing energy consumption and greenhouse gas emissions shall be quantitative and time-based, and they shall be determined by the company management.

or

2. Aluminium production – low direct climate effecting emissions

Aluminium used in the Nordic Swan Ecolabelled product comes from a primary aluminium producer whose direct climate-affecting emissions from primary aluminium production does not exceed 1,5 tonnes of CO_2e/ton of aluminium produced.

or

3. Aluminium production – low electricity consumption for electrolysis

Aluminium used in the Nordic Swan Ecolabelled product comes from a primary aluminium producer whose electricity consumption for electrolysis does not exceed 15.3 MWh / ton produced aluminium.

or

4. Aluminium production – ASI certified site

A minimum of 50% by weight of aluminium used in the Nordic Swan Ecolabelled product comes from a production site that are certified to the ASI Performance standard[7].

Recycled aluminium (A):

Alternative 1:

- There must be a signed agreement between the producer of aluminium/supplier of aluminium and the manufacturer of the Nordic Swan Ecolabelled product stating that the requirement is met. The declaration from the supplier of aluminium can be based on purchase records/average data from several aluminium suppliers.

[5] In case of several potential steel producers, the supplier of the metal components can verify the requirement by using a mass balance approach if there is an account documenting the annual volumes purchased from the individual steel producers. The volumes must correspond to volumes sold to the producer of Nordic Swan Ecolabelled product (e.g., cannot sell a larger volume than the corresponding quantity purchased from the individual steel producers).

[6] All major suppliers are compliant with one of the 3 alternatives. Major suppliers are here defined as suppliers delivering 75% of the total volume (w/w) of steel components in the Nordic Swan Ecolabelled product.

[7] https://aluminium-stewardship.org/asi-standards/asi-performance-standard (visited November 2022)

Alternative2:

- eBVD or EPD can be used as documentation if these are based on product-specific data/data from the aluminium producer´s own production and specifically state the content of recycled aluminium in the product.

Alternative 3: Valid Hydro Circal certificate[8].

Primary aluminium production (B):

Alternative 1:

- Enclose latest sustainability strategy report or equivalent documentation from the producer of primary aluminium showing fulfilment of the requirement. The producer of primary aluminium can also present specific targets from annual business report with reference to specific numbers and assumptions. Average numbers from the producer of primary aluminium with several steel melting plants is accepted.
- Information on type of traceability used to document the requirement.

Alternative 2:

- Declaration that the requirement is met, as well as calculation and indication of direct emissions in tonnes of CO_2e/ton of aluminium produced.
- Information on type of traceability used to document the requirement.

Alternative 3:

- Declaration that the requirement is met, as well as calculation and indication of electricity consumption in MWh/ton produced aluminium.
- Information on type of traceability used to document the requirement.

Alternative 4:

- Enclose valid ASI Performance certificate from the primary aluminium producer.
- Information from the supplier/manufacturer of the constituent aluminium part about which aluminium parts are from certified aluminium production (purchase records).
- Information from the supplier/manufacturer of the constituent aluminium parts on type of traceability used to document the requirement.
- Documentation from the manufacturer of the Nordic Swan Ecolabelled product that the requirement for share of purchased aluminium from certified aluminium producers is fulfilled – e.g., invoices or other documentation from suppliers.

[8] https://www.hydro.com/en-DK/about-hydro/publications/certificates/ (November 2022)

4.10 Plastic, rubber and silicone

Polymer materials used as padding materials, e.g. polyurethane foam and textiles are not subject to the plastic requirements. For textile requirements, see chapter 4.11 and for padding materials, see chapter 4.13.

Small plastic parts (e.g. screws, staples, and fasteners) weighing less than 100 g are not covered by the requirements of chapter 4.10. Electrical and electronic components, e.g. cables in height-adjustable tables and adjustable are also not covered by the requirements in chapter 4.10.

4.10.1 General requirements

O80 Types of plastic and reinforcement

Details must be provided of the types of plastic, fillers and reinforcements used in the plastic parts.

It is only permitted to reinforce plastic with fibreglass. Incorporation of other types of material into the plastic, e.g. wood fibre or bamboo (wood-plastic composite (WPC)) is prohibited.

- A description of plastic parts and types of plastic, fillers, and reinforcements in the plastic part.

O81 Labelling

Parts that contain plastic and weigh more than 100 g must be clearly labelled in compliance with the ISO 11469 and ISO 1043 standards.

An exemption is made for plastic in rolls, e.g. edge trim.

An exemption may also be made if it is technically difficult to label, e.g. because of lack of space or the production method. In such cases, it must be explained why labelling is difficult and the exemption must be specifically approved by Nordic Ecolabelling.

- Information about plastic parts and how they are labelled. A description of any exemption that applies must be given in compliance with the requirement.

O82 Bio-based plastics

It must be possible to recycle* the bio-based plastic in the product at today's recycling facilities.

**Incineration for energy recovery is not classed as material recycling. Biodegradable/compostable plastics cannot be recycled at today's recycling facilities.*

- Documentation showing the materials contained in the product.

O83 Raw materials for bio-based polymers

Raw materials used in the production of bio-based polymers must meet the following requirements.

Palm oil and soy

Palm oil, soybean oil and soybean flour must not be used as raw materials for bio-based polymers.

Sugar cane

Raw materials from sugar cane must comply with a) or b) below:

a) Raw materials from sugar cane shall be waste * or residual products **. There must be traceability to the production / process where the residual production occurred.

b) Sugar cane (primary feedstock) must not be genetically modified.

   Sugar cane must be certified by one of the following certification schemes:

   - Bonsucro (EU)
   - ISCC EU or ISCC Plus
   - A standard/certification scheme that meets the requirements in Appendix 6.

   The supplier of the bio-based polymer must have a valid chain of custody (CoC) certificate according to the standard by which the raw material is certified. Traceability must at least be ensured by mass balance. Book and claim systems are not accepted.

Other raw materials

The name (in Latin and a Nordic or English language) and supplier of the raw materials used must be stated.

The raw materials must meet one of the following requirements:

a) Be waste* or residual products **. There must be traceability to the production / process, where the residual production occurred.

b) Primary raw materials, e.g. maize must not be genetically modified ***. Geographical origin (country / state) must be stated.

** Waste in accordance with EU Directive 2018/2001 / EC.*

*** Residual products as defined in EU Directive 2018/2001 / EC. Residual products come from agriculture, aquaculture, fishing and forestry, or there may be treatment of residues. A treatment of residual product means a substance that is not the end product(s) that a production process directly seeks to produce; it is not a primary aim of the production process and the process has not been deliberately modified to produce it. Examples of residual products are, for example, straw, bait, the non-edible part of maize, livestock manure and bagasse. Examples of processing residues are, for example, raw glycerol or brown lye from paper production. PFAD (Palm Fatty Acid Distillate) from palm oil is not considered a residual product and can therefore not be used.*

**** Genetically modified organisms are defined in EU Directive 2001/18 / EC.*

- Declaration by the polymer manufacturer that palm oil (incl. PFAD (Palm Fatty Acid Distillate)), soybean oil and soybean flour are not used as raw materials for the bio-based polymer.

- For sugar cane: Indicate which certification system sugar cane is certified according to. Copy of valid CoC certificate or certificate number for the current traceability standard. Documentation as an invoice or delivery note from the producer of bio-based polymer which shows that certified raw material has been purchased for the production of the polymer. Declaration that sugar cane is not genetically modified.

- For waste and residual products: Documentation from the polymer producer, which shows that the requirement's definition of waste or residual products is followed, as well as traceability which shows where waste or residual product comes from.

- For primary raw materials: Declaration from the polymer manufacturer that raw materials have not been genetically modified according to the definition in the requirement.

O84 Nitrosamines in rubber

The following requirements apply to nitrosamines:

- The content of nitrosamines: ≤0.05 mg / kg rubber
- Total content of nitrosamine-soluble substances: ≤1 mg / kg rubber.

- A declaration from the rubber manufacturer.

4.10.2 Chemicals in plastics

O85 Chemicals in recycled plastics

This requirement applies to chemicals in the recycled plastic raw material.

Recycled plastic must not contain:

- halogenated flame retardants
- cadmium
- lead
- mercury
- chromium VI
- arsenic
- phthalates

Impurities up to 100 ppm are permitted.

- A test report (XRF, X-ray fluorescence, atomic absorption spectroscopy (AAS) or equivalent method) from the supplier of the recycled plastic or manufacturer of plastic components showing compliance with the requirement. Alternatively, the requirement can be documented with traceability to the source to substantiate that these substances are not included.

O86 Chemicals in re-used plastics

This requirement applies to plastic parts that are directly re-used and not plastics that have undergone mechanical or chemical recycling. Re-used plastic parts must not be used in products aimed at children.

Re-used plastics:

- It must be stated what the plastic part was previously used for.
- Plastics may not be used from product areas where it is probable that halogenated flame retardants have been used. Alternatively, it can be documented with tests, see requirement O87.
- Any surface treatment must meet the requirements in chapter 4.9.3.

Please note that there is a general ban on the use of chlorinated plastics, such as PVC in O2.

- Information about previous types of use for the plastic part, and a declaration or similar from the supplier of the plastic part stating that the part does not contain halogenated flame retardants. Alternative test report, see O85.

O87 Additives – prohibited substances

Additives in the list below must not be added to plastic, rubber, and silicon (both virgin and recycled plastic). This applies to additives actively added to the polymer raw material in the master batch or compound in production of plastic, rubber, or silicone.

- Substances on the Candidate List*

The following applies to the siloxanes D4, D5 and D6: D4 (CAS No. 556–67–2), D5 (CAS No. 541–02–6) or D6 (CAS No. 540–97–6) must only be included in the form of residues from raw material production and is permitted for each in quantities up to 1000 ppm in the silicone raw material (chemical).

- Substances that have been evaluated in the EU to be PBT (Persistent, Bioaccumulative and Toxic) or vPvB (very Persistent and very Bioaccumulative)**
- Potential or identified endocrine disruptors, listed in any of the following "Endocrine Disruptor Lists" List I; II and III. Exemptions apply to:
    - IPBC (3-iodo-2-propynyl butylcarbamate, CAS No. 55406-53-6) may be present in the chemical product at a level of not more than 0,2% by weight.

Note: Substances moved to "Substances no longer on list" and not present on Lists I-III, are no longer excluded, except for those on sublist II where concern remains. Nordic Ecolabelling will assess these on a case-by-case basis.

- Perfluorinated and polyfluorinated alkylated substances (PFAS)
- Halogenated organic compounds. Exceptions*** for:
    - halogenated organic pigments that comply with the Council of Europe recommendation "Resolution AP (89) 1 on the use of colorants in plastic materials coming into contact with food", point 2.5.

*** *Perfluorinated and Polyfluorinated alkyl substances are covered by their own bulletin and are not included in the exemption.*

- Butylhydroxytoluene (BHT, CAS No. 128–37–0)
- Aziridine and polyazidirines
- Bisphenols
- Alkylphenols, alkylphenol ethoxylates and other alkylphenol derivates****
- Phthalates
- Pigments and additives based on lead, tin, cadmium, chromium VI and mercury, and their compounds

**The Candidate List is available on the ECHA website: http://echa.europa.eu/candidate-list-table*

***PBT and vPvB in accordance with the criteria in Annex XIII of REACH*

*****Alkylphenol derivatives are defined as substances that release alkylphenols when they break down.*

- A declaration from the manufacturer of plastic/rubber/silicon.

- A safety data sheet for the additives in compliance with current European legislation (Annex II of REACH, Regulation (EC) No. 1907/2006.

O88 Additives – CMR

Additives to plastic, rubber and silicone (both virgin and recycled plastic) must not be classified according to the table below. The requirement applies to additives actively added to the polymer raw material in the master batch or compound in production of plastic, rubber and silicone.

CLP Regulation 1272/2008		
Hazard class	**Hazard category**	**Hazard code**
Carcinogenic*	Carc. 1A or 1B Carc. 2	H350 H351
Germ cell mutagenic*	Muta. 1A or 1B Muta. 2	H340 H341
Toxic for reproduction*	Repr. 1A or 1B Repr. 2 Lact.	H360 H361 H362

**Including all combinations of stated exposure route and stated specific effect. For example, H350 also covers the classification H350i.*

Exemptions apply to:

- The classification H361 for 1,1,1-Trimethylolpropane (TMP, CAS No. 77–99–6).

- Safety data sheet for additives in compliance with current European legislation (Annex II of REACH, Regulation (EC) No. 1907/2006).

- A declaration from the plastics/rubber/silicon manufacturer.

4.10.3 Surface treatment of plastic

Surface treatment of plastic edge bands is exempted for the requirements in this chapter (requirement O89–O95).

O89 Surface treatment

Surface treatment of plastic materials may be permitted if documentation can be submitted showing that this does not affect the potential for recycling.

- A declaration from the furniture manufacturer and documentation stating that the coating does not negatively affect the potential for recycling.

O90 Classification of chemical product

The chemical products used for surface treatment of plastic must not have any of the classifications in the table below.

CLP Regulation 1272/2008		
Hazard class	**Hazard category**	**Hazard code**
Hazardous to the aquatic environment	Aquatic Acute 1 Aquatic Chronic 1 Aquatic Chronic 2 Ozone	H400 H410 H411 H420
Carcinogenicity*	Carc. 1A or 1B Carc. 2	H350 H351
Germ cell mutagenicity*	Muta. 1A or 1B Muta. 2	H340 H341
Toxic for reproduction*	Repr. 1A or 1B Repr. 2 Lact.	H360 H361 H362
Acute toxicity	Acute Tox 1 or 2 Acute Tox 1 or 2 Acute Tox 1 or 2 Acute Tox 3 Acute Tox 3 Acute Tox 3	H300 H310 H330 H301 H311 H331
Specific target organ toxicity with single or repeated exposure	STOT SE 1 STOT RE 1	H370 H372
Respiratory sensitization	Resp. Sens 1, 1A or 1B	H334

**Including all combinations of stated exposure route and stated specific effect. For example, H350 also covers classification H350i.*

Note that responsibility for correct classification lies with the manufacturer.

Exemption applies to UV curing surface treatment products classified as environmentally hazardous if requirement O62 is met.

- Safety data sheet in accordance with Appendix II of REACH (Regulation No. (EC) 1907/2006) for each chemical product in the surface treatment system.
- A declaration from the manufacturers of surface treatment products.

O91 Classification of ingoing substances

Ingoing substances (see Definitions) in the chemical product used for surface treatment must not have any of the classifications in the table below.

CLP Regulation 1272/2008		
Hazard class	**Hazard category**	**Hazard code**
Carcinogenic*	Carc. 1A or 1B Carc. 2	H350 H351
Germ cell mutagenic*	Muta. 1A or 1B Muta. 2	H340 H341
Toxic for reproduction*	Repr. 1A or 1B Repr. 2 Lact.	H360 H361 H362

**Including all combinations of stated exposure route and stated specific effect. For example, H350 also covers classification H350i.*

Exemptions apply to:

- The classification H351, H341 or H361 for photo initiators.

- The classification H361 for 1,1,1-Trimethylolpropane (TMP, CAS No. 77–99–6).
- The classification H351 for trimethylolpropane triacrylate (TMPTA, CAS No. 15625–89–5).
- The classification H361 for mequinol (CAS No. 150–76–5).
- The hardener in 2-component UV products can be exempted from the requirement if the following is met: it must be documented that the workers are not exposed to the components, e.g., by using safety equipment when mixing or that the mixing takes place automatically without exposure of the workers and that the application of the finished two-component system is done in a closed system.

☐ Safety data sheet in accordance with Appendix II of REACH (Regulation No. (EC) 1907/2006) for each chemical product in the surface treatment system.

☐ A declaration from the manufacturers of surface treatment products.

O92 Prohibited substances

The following substances must not be an ingoing substance (See Definitions) in chemical products used for surface treatment:

- Substances on the Candidate List*
- Substances that have been evaluated in the EU to be PBT (Persistent, Bioaccumulative and Toxic) or vPvB (very Persistent and very Bioaccumulative)**
- Potential or identified endocrine disruptors, listed in any of the following "Endocrine Disruptor Lists" List I; II and III. Exemptions apply to:
    - IPBC (3-iodo-2-propynyl butylcarbamate, CAS No. 55406-53-6) may be present in the chemical product at a level of not more than 0,2% by weight

Note: Substances moved to "Substances no longer on list" and not present on Lists I-III, are no longer excluded, except for those on sublist II where concern remains. Nordic Ecolabelling will assess these on a case-by-case basis.

- Perfluorinated and polyfluorinated alkylated substances (PFAS)
- Halogenated organic compounds. Exemptions*** for:
    - Bronopol (CAS No. 52–51–7) may be present in the chemical product at a level of not more than 0.05% by weight
    - Mixture (3:1) of CMIT/MIT (5 chloro-2-methyl-4-isothiazolin-3-one CAS No. 247–500–7; 2-methyl-4-isothiazolin-3-one CAS No. 220–239–6) may be present in the chemical product at a level of not more than 0.0015% by weight
    - IPBC (Iodopropynyl butylcarbamate) may be present in the chemical product at a level of not more than 0.20% by weight
    - halogenated organic pigments that comply with the Council of Europe recommendation "Resolution AP (89) 1 on the use of colorants in plastic materials coming into contact with food", point 2.5
    - Epoxy acrylate used in UV curing coatings

*** *Perfluorinated and Polyfluorinated alkyl substances are covered by their own bullet and are not included in the exemption.*

- Isothiazolinones may be present in the chemical product at a level of not more than 0.05% by weight

- Butylhydroxytoluene (BHT, CAS No. 128–37–0)
    - An exemption is given for BHT in UV curing lacquers and paints. If BHT is given a harmonized official classification so that the substance does not meet the requirements of the criteria document, the exemption will no longer be valid.
- Aziridine and polyaziridines
- Bisphenol A, S and F
- Alkylphenols, alkylphenol ethoxylates and other alkylphenol derivates****
- Phthalates
- Pigments and additives based on lead, tin, cadmium, chromium VI and mercury, and their compounds
- Volatile aromatic hydrocarbons (VAH). They are permitted in the chemical product as an impurity at a level of not more than 1% by weight

**The Candidate List is available on the ECHA website: http://echa.europa.eu/candidate-list-table*

***PBT and vPvB in accordance with the criteria in Annex XIII of REACH*

*****Alkylphenol derivatives are defined as substances that release alkylphenols when they break down.*

- ☐ A declaration from the manufacturer/supplier of the chemical product used for surface treatment.
- ☐ A safety data sheet for the product used for surface treatment in compliance with current European legislation (Annex II of REACH, Regulation (EC) No. 1907/2006.

O93 Nanomaterial

The chemical product must not have nanomaterials* as ingoing substances (See Definitions). Exemptions apply to:

- Pigments**
- Naturally occurring inorganic fillers***
- Unmodified synthetic amorphous silica

** See definitions.*

*** This exception does not include pigments added for purposes other than colour.*
**** This applies to fillers covered by Annex V item 7 of REACH.*

- ☐ A declaration from the manufacturer of the chemical product(s) used in the surface treatment that the chemical product does not contain any nanomaterial.

O94 Free formaldehyde

The content of free formaldehyde in each individual chemical product used for surface treatment must not exceed 0.2% by weight (2,000 ppm).

- ☐ A declaration from the manufactures of the chemical products in the surface treatment system.

O95 Quantity of applied volatile organic compounds (VOC)

The requirement applies if the surface-treated plastic part makes up more than 5% by weight of the furniture /fitment.

For each surface treatment used, the following information must be provided by the furniture manufacturer:

a) Name of the surface treatment product and manufacturer of the surface treatment product

b) quantity applied (g/m^2), number of coats and application method(s) used.

The chemical products that are used for surface treatment must meet one of the following alternatives:

- The total content of VOCs* must not exceed 5% by weight or
- The total amount of VOCs applied must not exceed 30 g/m^2 treated surface

The applied quantity of VOCs according to alternative b) is calculated using the following formula:

$$\frac{\text{Applied amount of the surface treatment chemical } \left(\frac{g}{m^2}\right) x \text{ share of VOC in the surface treatment chemical } (\%)}{\text{Efficiency of the surface treatment } (\%)}$$

For both these alternatives, it is the content of VOCs that the chemical products have in their uncured form that must meet the requirement. If the products require dilution, the calculation must be based on the content in the diluted product.

For calculating the surface treatment efficiency, the following levels** of efficiency must be used:

- Automated spray with no recycling, 50%
- Automated spray with recycling, 70%
- Spray application, electrostatic, 65%
- Spray application, bell/disk, 80%
- Roller varnishing 95%
- Blanket varnishing 95%
- Vacuum varnishing 95%
- Dipping 95%
- Rinsing 95%

**Volatile organic compounds (VOCs) are defined as compounds with a boiling point of <250°C at 101.3 kPa (1 atm).*

***The levels of efficiency are standard values. Other efficiency levels may be applied if they can be documented.*

☐ Safety data sheet in accordance with Appendix II of REACH (Regulation No. (EC) 1907/2006) for each chemical product in the surface treatment system.

☐ A declaration from the manufacturers of the chemical products in the surface treatment system stating the quantities of VOCs in each product.

- A calculation from the furniture manufacturer showing that alternative b) in the requirement is met if the surface treatment system does not meet alternative a).

4.10.4 Recycled and biobased plastics

O96 Recycled and biobased plastics

The requirement varies based on the plastic content in the product.

If plastic is included with more than 10% by weight in the product:

- At least 50% by weight of the plastic must consist of recycled material *

  or

- At least 50% by weight of the plastic must be bio-based.

If plastic is included with more than 30% by weight in the product:

- At least 50% by weight of the plastic must consist of recycled material. A minimum of 20% of this must be post-consumer

  or

- At least 75% by weight of the plastic must be bio-based.

The requirement to a minimum of 20% by weight of post-consumer/commercial plastic applies regardless of the total amount of recycled plastic.

**Recycled plastic is defined in the requirement according to ISO 1402, see terms/definitions.*

- The manufacturer of recycled raw materials must be specified. Documentation must confirm compliance with the requirement's definition or certification such as Global Recycled Standard, EuCertPlast, or an equivalent approved by Nordic Ecolabelling.
- Calculation that shows that the proportion recycled and if relevant the proportion of pre- and post-consumer plastic, as well as the proportion of bioplastic is met.

4.11 Textiles

The requirements apply to textiles made of both synthetic and natural fibres with different requirements depending on their quantity and purpose in the product.

– Chapter 4.11.2 – 4.12.2 apply to covers on furniture, such as upholstery on sofas and sofa cushions, chairs, and mattresses. Outer covers on the bed frame and any accessories such as headboards also belong to this category.

– Chapter 4.12.3 apply to other textile parts such as textiles under sofa cushions, textiles on partitions, around the spring mattress on continental beds and around springs in a mattress.

Textiles with the Nordic Swan Ecolabel meet all the requirements in this section.

Textiles with the EU Ecolabel comply all the requirements except those for flame retardants. For approval, documentation must confirm that any added flame retardants meet requirement O103 and are not classified under the hazard classes listed in O105.

Definitions

The following applies in respect of requirements for chemicals:

These requirements apply to all chemicals used during the manufacture of textiles unless otherwise specified in the requirement. This includes bleaching, dyeing, printing, and finishing, such as coating, lamination or gluing. The requirements apply to chemical products used in dyeing plants/-houses.

The requirements do not apply to:

- chemicals used in water treatment plants.
- chemicals used for maintenance of production equipment.
- chemicals used in small quantities, such as levelling agents and de-sizing agents.

The following definition applies:

Ingoing substances:

All substances in the chemical product, including additives (e.g. preservatives and stabilisers) in the raw materials. Substances known to be released from ingoing substances (e.g. formaldehyde, arylamine, in-situ generated preservatives) are also considered as ingoing substances.

Impurities:

Residuals, pollutants, contaminants etc. from production, incl. production of raw materials that remain in the raw material or in chemical product in concentrations less than 1000 ppm (0,1000% by weight, 1000 mg/kg) in the chemical product. Examples of impurities are residues of the following: residues or reagents incl. residues of monomers, catalysts, by-products, scavengers, and detergents for production equipment and carry-over from other or previous production lines.

4.11.1 Material composition and material limits

A detailed overview must be provided, specifying the textile parts, fibre types, applicable requirements, and suppliers of the various textile components.

O97 Material composition

The following information must be provided:

- An overview of textile parts and their use in the product
- Fibre types (such as cotton, viscose, wool, polyester etc). When mixing two or more fibre types in the textile part, the weight% of the different fibre types must be stated.
- Materials in any membranes / coatings must be specified
- Supplier of the textile parts
- If recycled textiles have been used, this must be stated
- If the textile part is ecolabelled with the Nordic Swan Ecolabel or EU Ecolabel, this must be stated. See O98.

T̄ Schematic overview containing the above information for all textile parts in the furniture.

O98 Ecolabelled textile

If the textile is ecolabelled with the Nordic Swan Ecolabel, all the requirements in this chapter are fulfilled.

If the textile is ecolabelled with EU Ecolabel and it contains flame retardants, O103 and O105 must also be fulfilled.

- Textile labelled with Nordic Swan Ecolabel: Submit name of textile, manufacturer and license number.
- Textile labelled with EU Ecolabel: Submit name of textile, manufacturer and license number. Documentation according to O105 and O107.

O99 Material limits

The following material limits apply:

- Sewing thread, furniture knobs, elastic bands, textiles on zippers and velcro are not covered by requirements.
- Textile parts that make up less than 1% by weight of the textile included are exempt from the requirements.
- Fibre types to which no requirements are imposed in the criteria can be included in a maximum of 5% by weight in the individual textile part. Types of fibres included in the criteria are cotton, linen and other bast fibres, wool and other keratin fibres, regenerated cellulose fibres (e.g. viscose), acrylic, polyamide, polyester and polypropylene. In addition, recycled textile fibre can be included.

- Description showing that material limits in the requirement are complied with. The material overview from requirement O97 can be used as a basis.

O100 Metal details

Buttons, zippers and other details in metal must meet the following requirements:

- Lead (Pb): <90 mg / kg (Digested sample, Detection GC-ICP-MS)
- Cadmium (Cd): <40 mg / kg (Digested sample, Detection GC-ICP-MS)

- Test report for the relevant metal material (for example buttons) which shows that the requirement is met. Alternatively, the requirement can be documented with a GOTS or Oeko-Tex 100 class I certificate.

4.11.2 Covers – chemicals

The requirements in this chapter 4.11.2 (chemicals) and in chapter 4.11.3 (production of fibre), apply to:

1. Cover / upholstery on seating furniture (sofas, chairs, benches, etc.)
2. Mattress cover (including intermediate mattress in continental beds)
3. Cover on bed frames and any headboard

Please note that there are quality requirements in chapters 4.12–4.12.2 depending on the type of textile and use (seating furniture, coated textile materials and mattress covers).

The requirements apply to the individual textile fibre which constitutes more than 10% by weight in the constituent textile. Many of the requirements in this chapter are harmonized or partially harmonized with the requirements set out in the criteria for Nordic Ecolabelling of textiles, leather and hide. Reference is therefore made to the background document for these criteria for a more general background to the textile requirements.

O101 OEKO-Tex 100 certified textile

Textiles must be Oeko-Tex 100 (Class I or II) certified.

- Valid certificate from Oeko-Tex 100, Class I or II.

O102 Biocides and antibacterial substances

Chemicals with the following properties may not be added to and/or used in fibres, rolls of fabrics or the final textile product:

- Antibacterial substances (including silver ions, silver nanoparticles and copper nanoparticles)
- Biocides in the form of pure active substances or as biocidal products.

This requirement also applies to the transport of the textiles.

The ban does not apply to natural antibacterial effect in materials.

Preservation used in chemical raw materials ("in can" preservation is not covered by the ban).

- A declaration of compliance with the requirement from the manufacturer/supplier of textile.

O103 Flame retardants

The following flame retardants must not be added to and/or used in fibres, rolls of fabrics or the final textile product:

- Halogenated flame retardants
- Organophosphate flame retardants

Flame retardants must also meet requirement O105

- A declaration from the textile manufacturer stating that no halogenated and/or organophosphate flame retardants have been added to textiles or during the production process.
- Documentation in compliance with the requirement O105

O104 Coatings, laminates and membranes

Coatings, laminates and membranes used in fibres, rolls of fabrics or the final textile product must not contain:

- Halogenated polymers are (e.g., PVC / PVDC containing chlorine and PTFE containing fluorine).

- Declaration from the manufacturer of the textile that the requirement is fulfilled.

O105 Classification of chemical products

Chemical products used in the dyeing process shall not be classified in any of the hazard categories in the table below.

CLP Regulation 1272/2008		
Hazard class	**Hazard category**	**Hazard code**
Hazardous to the aquatic environment	Aquatic Acute 1 Aquatic Chronic 1 Aquatic Chronic 2 Ozone	H400 H410 H411 H420
Carcinogenicity*	Carc. 1A or 1B Carc. 2	H350 H351
Germ cell mutagenicity*	Muta. 1A or 1B Muta. 2	H340 H341
Toxic for reproduction*	Repr. 1A or 1B Repr. 2 Lact.	H360 H361 H362
Acute toxicity	Acute Tox 1 or 2 Acute Tox 1 or 2 Acute Tox 1 or 2 Acute Tox 3 Acute Tox 3 Acute Tox 3	H300 H310 H330 H301 H311 H331
Specific target organ toxicity with single or repeated exposure	STOT SE 1 STOT RE 1	H370 H372
Sensitising on inhalation or skin contact	Resp. Sens. 1, 1A or 1B Skin Sens. 1, 1A or 1B	H334** H317**

**Including all combinations of stated exposure route and stated specific effect. For example, H350 also covers classification H350i.*

*** Non-disperse dyes are exempt from the prohibition of H334 and H317, provided that non-dusting formulations are used or that full or semi-automatic dosing is used. If semi-automatic dosing is used, the manual handling of the dyes must be carried out using the correct personal protective equipment in accordance with safety data sheets (SDS) and/ or the use of technical measures such as local ventilation.*

- Declaration from the textile manufacturer that the requirement is fulfilled.
- For exempted non-disperse dyes: Declaration that non-dusting formulations of these are used or that the requirement to full or semi-automatic dosing is fulfilled.
- Safety data sheet for chemicals in compliance with current European legislation (Annex II of REACH, Regulation (EC) No. 1907/2006).

4.11.3 Covers – fibre production

The requirements for fibre apply to the textile fibre with a content in the textile part of more than 10% by weight. This means that e.g. for a blend of 90% cotton and 10% polyester, only the requirements for cotton must be met. The requirements for fibre are new. Some of the requirements are harmonised with requirements in the new criteria for the Nordic Swan Ecolabelling of textiles, hide and leather. Other requirements are based on requirements in the current version of the textile criteria and/or criteria for the Nordic Swan Ecolabelling of Baby products with textiles.

O106 Cotton

Cotton and other cellulose seed fibres (including kapok) must be:

- organically farmed* or
- recycled** or
- GOTS certified or
- grown in compliance with one of the following standards: BCI (Better Cotton Initiative), CmiA (Cotton made in Africa) or FairTrade for cotton.

** Organic means cotton that is certified organic or is grown during the transition period to organic cultivation in accordance with a standard approved in the IFOAM Family of Standards. See definitions for more details.*

*** Recycled fibres or materials: Pre-consumer or post-consumer recycled raw materials, c.f. the definition given in the ISO 14021 standard. Both mechanical and chemical recycling are included. See definitions for more details.*

- A valid certification showing that the cotton in the Nordic Swan Ecolabelled product has been organically grown or grown in compliance with the standards in the requirement. If the GOTS certification is held by the subcontractor, a transaction certificate is required showing that the product being shipped is GOTS certified. Documentation for BCI cotton must show traceability back to the BCI farmers.
- Documentation for recycled fibres must be either a) or b):
  a) Global Recycled Standard certificate showing that the raw material has been recycled or other equivalent certification approved by Nordic Ecolabelling.
  b) documentation showing that the recycled fibres were purchased as recycled and the name of the supplier.

O107 Flax and other bast fibres

Flax and other bast fibres (e.g. ramie, hemp and jute) must only be farmed with pesticides allowed under the EU Regulation No. 1107/2009.

- Valid certificate from European Flax Standard or equivalent.

O108 Wool and other keratin fibres

Any wool and other keratin fibres used must originate from sheep, camels, alpaca or goats, and must be one of the following:

1. certified organic wool*

   or

2. recycled wool**

   or

3. conventional wool with documentation that the requirement below concerning pesticide content in the raw wool is fulfilled.

Pesticide content in conventional wool:

- The total content of the following substances may not exceed 0.5 ppm:

  γ-hexachlorocyclohexane (lindane), α-hexachlorocyclohexane, β-hexachlorocyclohexane, δ-hexachlorocyclohexane, aldrin, dieldrin, endrin, p,p'-DDT and p,p'-DDD, cypermethrin, deltamethrin, fenvalerate, cyhalothrin and flumethrin.

- The total content of the following substances may not exceed 2 ppm: diazinon, propetamphos, chlorfenvinphos, dichlorfenthion, chlorpyriphos, fenchlorphos, dicyclanil, diflubenzuron and triflumuron.

The requirement to test for pesticide residues does not apply if documentation can show which farmers produced at least 75% by weight of the wool or keratin fibres, and those farmers can confirm that the substances named in the requirement have not been used in the areas or on the animals in question.

Test method: The tests must be performed in accordance with IWTO Draft Test Method 59: Method for the Determination of Chemical Residues on Greasy Wool or equivalent.

The analysis must be performed on raw wool before wet processing and the test report must be submitted with the application. Thereafter, the applicant must have a procedure in place for annual testing in line with the requirement and for ensuring compliance with the requirement. Nordic Ecolabelling must be informed if the requirement is not fulfilled.

** Definition of organic wool: wool fibre that is certified as organic or transitioning to organic according to a standard approved in the IFOAM Family of Standards, such as Regulation (EU) 2018/848, USDA National Organic Program (NOP), APEDA's National Programme for Organic Production (NPOP), China Organic Standard GB/T19630. Also approved are GOTS and DEMETER and certification as "transitioning to organic cultivation". The certification body must have the accreditation required for the standard, such as ISO 17065, NOP or IFOAM.*

*** Definition of recycled wool: Pre-consumer or post-consumer recycled raw materials, see the definition in the ISO 14021 standard. Both mechanically and chemically recycled fibres are included. See the definitions in section 5.2 for more details.*

Organic wool:

- Valid certificate showing that the wool in the Nordic Swan Ecolabelled product was organically cultivated in line with the standards in the requirement. If the supplier is the holder of GOTS certification, the requirement must be documented with a transaction certificate showing that the goods supplied are GOT certified.

Recycled fibre:

- Fulfilment of the requirement is documented for recycled fibre with either a or b below:

  a) Global Recycled Standard certificate showing that the raw material is recycled, or other equivalent certification approved by Nordic Ecolabelling.

  b) Present documentation demonstrating that the recycled fibre was purchased as recycled and state the supplier.

Conventional wool:

- A test report showing that the pesticide requirement has been fulfilled. A written procedure showing how an annual test is performed in line with the pesticide requirement, along with annual in-house checks of compliance with the requirement. An alternative to the pesticide test is a confirmation from the farmers that the stated substances are not used, plus an overview of the proportion of wool concerned.

O109 Ban on mulesing

Surgical mulesing and mulesing performed using liquid nitrogen are not permitted on merino sheep.

- Declaration from the merino wool producer, stating that no mulesing has taken place. The requirement can also be documented with a valid certificate showing that the production of wool is certified according to Responsible Wool Standard, version 2 or later.

O110 Synthetic fibres

Synthetic fibres must either be recycled or meet the requirements below for acrylic, polyamide, polyester and polypropylene.

Recycled:

- Recycled plastics must not be used if they are approved for food contact and originate from facilities that are EFSA* or FDA** approved or are marketed as compliant with these.

Acrylic:

- The residual acrylonitrile content in raw fibres from the fibre production plant must be less than 1.5 mg/kg. The amount of acrylonitrile must be measured using the following method of analysis: Extraction with boiling water and quantification with capillary gas-liquid chromatography.
- N,N-Dimethylacetamide (DMAc, CAS No. 127–19–5) must not be used in the production of acrylic.

Polyamide:

- Emissions of nitrous oxide (N2O) to the air from the production of monomers must not exceed 10 g/kg produced polyamide 6-fibre and 50 g/kg produced polyamide 6.6-fibre, expressed as an annual average.

Polyester:

- The amount of antimony in polyester fibre measured as an annual average must not exceed 260 ppm. Antimony must be tested using the following method: Direct determination by atomic absorption spectrometry. The test must be conducted on raw fibre prior to wet treatment

  or

- The amount of extractable antimony in the final textile must not exceed 30 mg/kg (30 ppm) for tests done with extractable antimony using AAS and ICP spectrometry (identically to requirement in Oeko-Tex 100, class I or II).

Polypropylene:

- Lead-based pigments must not be used.

** In line with Commission Regulation (EC) No 282/2008 of 27 March 2008 on recycled plastic materials and articles intended to come into contact with foods.*

*** In line with the Code of Federal Regulations Title 21: Food and Drugs, PART 177 – INDIRECT FOOD ADDITIVES: POLYMERS.*

- For recycled fibre: A declaration from the manufacturers of recycled raw materials stating that the raw materials are not EFSA or FDA approved, c.f. the requirement. Certificate for third party certification of the supply chain (e.g. Global Recycled

Standard) or documentation from the manufacturer showing that the feedstock used in the raw material is 100% recycled material, c.f. the definition in the requirement

- Acrylic: An analysis report from the manufacturer of acrylic showing compliance with the requirement. A declaration from the manufacturer of acrylic that DMAc has not been used.
- Polyamide: A test report or monitoring data, together with a declaration of compliance from the manufacturer of polyamide showing compliance with the requirement.
- Polyester: A declaration from the manufacturer of polyester showing that antimony has not been used or a test report showing compliance with the requirement or
- Polyester: Test report or Oeko-Tex 100 (class I or II) certificate showing fulfilment of the requirement.
- Polypropylene: A declaration from the manufacturer of polypropylene that lead-based pigments have not been used.

O111 Regenerated cellulose (e.g. lyocell)

The following requirements apply to regenerated cellulose:

- Chlorine gas (Cl_2) must not be used to bleach cellulose pulp or cellulose fibre.
- Sulphur emissions (viscose and modal fibre) to the air must not exceed 120 g S/kg of filament fibre and 30 g/kg of staple fibre expressed as an annual average. Measurement of sulphur emissions must be in accordance with ISO 7934, ISO 7935 or equivalent standards.
- Zinc emissions (viscose) to water must not exceed 0.3 g Zn/kg of regenerated cellulose, expressed as an annual average.

- A declaration from the manufacturer of regenerated cellulose that chlorine gas has not been used for bleaching.
- An analysis report showing emissions of sulphur.
- An analysis report showing emissions of zinc.

O112 Regenerated cellulose – tree species

Nordic Ecolabelling's list of restricted tree species* consist of virgin tree species listed on:

a) CITES (Appendices I, II and III)
b) IUCN red list, categorized as CR, EN and VU
c) Rainforest Foundation Norway´s tree list
d) Siberian larch (originated in forests outside the EU)

Tree species listed on a) CITES (Appendices I, II and III) are not permitted to be used.

Tree species listed on either b), c) or d) may be used if it meets all of the following requirements:

- the tree species does not originate from an area/region where it is IUCN red listed, categorized as CR, EN or VU.
- the tree species does not originate from Intact Forest Landscape (IFL), defined in 2002 http://www.intactforests.org/world.map.html.

- the tree species must originate from FSC or PEFC certified forest/plantation and must be covered by a valid FSC/PEFC chain of custody certificate documented/controlled as FSC or PEFC 100% through the FSC transfer method or PEFC physical separation method.
- Tree species grown in plantation shall in addition originate from FSC or PEFC certified forest/plantation, established before 1994.

Exemptions:

Eucalyptus and acacia are exempted from the list. Eucalyptus/Acacia must be at least 50% certified and come from forests / plantations managed in accordance with sustainable forestry management principles that meet the requirements of FSC or PEFC. The remaining share must be from controlled sources (FSC controlled wood or PEFC controlled sources).

**The list of restricted tree species is located on the website: https://www.nordic-swan-ecolabel.org/pulp-paper-declaration-portal/what-can-be-declared/forestry-requirements/*

- Declaration from the applicant/manufacturer/supplier that tree species listed on a-d) are not used.

If species from the lists b), c) or d) is used:

- The applicant/manufacturer/supplier are required to present a valid FSC/PEFC Chain of Custody certificate that covers the specific tree species and demonstrate that the tree is controlled as FSC or PEFC 100% through the FSC transfer method or PEFC physical separation method.
- The applicant/manufacturer/supplier are required to document full traceability back to the forest/certified forest unit thereby demonstrating that:
  - the tree does not originate from an area/region where it is IUCN red listed, categorized as CR, EN or VU;
  - the tree species does not originate from Intact Forest Landscape (IFL), defined in 2002 http://www.intactforests.org/world.webmap.html;
  - For plantations the applicant/manufacturer/supplier are required to document that the tree species does not originate from FSC or PEFC certified plantations established after 1994.
- For pulp of eucalyptus / acacia: valid traceability certificate from the pulp producer and documentation showing that the certification requirement of a minimum of 50% is fulfilled and that the remaining share comes from controlled sources.

O113 Traceability and certified raw materials

The requirement applies if the regenerated cellulose fibre content in the textile is more than 50%.

The manufacturer of regenerated fibre or the manufacturer of the dissolving pulp must state the name (species name) of the raw materials used in its production.

The manufacturer of regenerated fibre or the manufacturer of the dissolving pulp must have Chain of Custody certification under the FSC or PEFC schemes.

On an annual basis:

a) At least 50% of the raw materials that are used as cellulose fibre/in the dissolving pulp must be certified as sustainably forested under the FSC or PEFC schemes. The remaining percentage of wood raw materials must be covered by the FSC/PEFC compliance schemes (FSC Controlled Wood/PEFC Controlled Sources)

or

b) At least 70% of the regenerated fibre in the dissolving pulp must be recycled material*

or

c) a combination of certified raw material and recycled material, calculated using the following formula:

Requirement for the percentage of fibre raw material from certified forestry in the pulp (Y): Y (%) ≥ 50 - 0.67 x

where x = percentage of recycled material.

The requirement must be documented as purchased raw material/fibre on an annual basis (volume or weight) by the producer of regenerated fibre or the manufacturer of the dissolving pulp.

Suppliers of dissolving pulp must be specified. If several pulps are mixed, the certification percentage must be met for the finished pulp that is used.

**Recycled material is defined according to ISO 14021, see Definitions.*

- Name (in Latin and one Nordic language) of the raw materials used.
- Valid Chain of custody- certificate from manufacturer of pulp or manufacturer of regenerated cellulose.
- Documentation showing that the requirement for certification or recovered share has been met.

  – Manufacturer of regenerated cellulose must specify supplier (s) of dissolving pulp. The pulp producer must document that the pulp on an annual basis contains a minimum of 50% certified by submitting accounts/overview that show the proportion of certified raw material in production, and that the rest is from controlled sources.

  – If the claim is documented by the manufacturer of regenerated cellulose, the supplier (s) of the dissolving pulp must be stated and documentation e.g. invoice or delivery note between pulp producer and producer of regenerated cellulose showing that the purchased pulp contains a minimum of 50% certified raw material. If pulp is purchased from several suppliers, documentation must be submitted on all purchases from the various pulp producers and an account from the producer of regenerated cellulose which shows that the total certified share in the production is at least 50% certified.

O114 Recycled fibres – test for environmentally harmful substances

This requirement applies to all recycled fibres, both synthetic and natural.

– Exemptions: PET bottles that are used in the production of polyester as well as chemically recycled polymers that perform chemical purification are exempt from the requirement.

– Recycled fibres/raw materials for fibre production must not contain the following substances above the limits stated in the table below.

– The requirement must be documented on application, with subsequent annual checks via self-assessment.

Substance/substance group	Max. limit
Metals	
Chromium total	1.0 mg/kg
Lead	0.1 mg/kg
Mercury	0.02 mg/kg
Cadmium	0.1 mg/kg
Antimony	30.0 mg/kg
Organic tin compounds	
TBT and TPhT	0.5 mg/kg
Total of DBT, DMT, DOT, DPhT, DPT, MOT, MMT, MPhT, TeBT, TeET, TCyHT, TMT, TOT, TPT	1.0 mg/kg
Chlorophenols	
Pentachlorophenol	0.05 mg/kg
Tetrachlorophenol	0.05 mg/kg
Trichlorophenol	0.2 mg/kg
Dichlorophenpol	0.5 mg/kg
Monochlorophenol	0.5 mg/kg
Per- and polyfluorinated compounds	
PFOS, PFOSA, PFOSF, N-Me-FOSA, N-Me-FOSE, N-Et-FOSE	Total < 1.0 µg/m^2
PFOA	< 1.0 µg/m^2
PFHpA, PFNA, PFDA, PFUdA, PFDoA, PFTrDA, PFTeDA	0.05 mg/kg for each
Other stated per- and polyfluorinated compounds as set out in Oeko-Tex 100 Annex 5.	0.05 or 0.5 mg/kg for each as stated in Oeko-Tex 100
Phthalates	
BBP, DBP, DEP, DMP, DEHP, DMEP, DIHP, DHNUP, DCHP, DHxP, DIBP, DIHxP, DIOP, DINP, DIDP, DPrP, DHP, DNOP, DNP, DPP	Total 0.1% by weight
Flame retardants	
Flame retardants, with the exception of flame retardants approved by Oeko-Tex	< 100 mg/kg for each
Formaldehyde	16 mg/kg
Arylamines with carcinogenic properties stated in Oeko-Tex 100 Annex 5	Total 20 mg/kg
Surfactant, wetting agent residues	
Nonylphenol, octylphenol, heptylphenol, pentylphenol	Total 10 mg/kg
Nonylphenol, octylphenol, heptylphenol, pentylphenol, nonylphenol ethoxylate and octylphenol ethoxylate	Total 100 mg/kg
Dyes	
Cleavable, classified as carcinogenic in Oeko-Tex Annex 5	Total 20 mg/kg
Cleavable aniline as listed in Oeko-Tex Annex 5	Total 100 mg/kg
Classified as carcinogenic in Oeko-Tex Annex 5	50 mg/kg
Dyes classified as allergenic in Oeko-Tex Annex 5	50 mg/kg
Other dyes listed in Oeko-Tex Annex 5	50 mg/kg

Pesticides (for recycled natural fibre)	
Pesticides listed in Oeko-Tex 100 Annex 5	Total 0.5 mg/kg

Test methods: as stated in Testing Methods Standard 100 by Oeko-Tex, class I or II.

- Test reports or Oeko-Tex 100 class I or II certificate showing fulfilment of the requirement.
- A written procedure about annual testing in line with the requirement, along with annual in-house checks of compliance with the requirement.

4.12 Quality requirements textiles – seating furniture and headboards

The quality requirements for textiles apply to the following textile parts:

- The cover/upholstery of seating furniture such as sofas, armchairs, chairs, and office chairs
- The cover on headboards
- Upholstered bed frames.

Not all requirements are relevant for all applications. It can e.g. be that the requirements only apply to fabrics that can be removed for washing, or that it does not apply to white fabrics. This is specified in the requirement.

O115 Dimensional changes after washing and drying

The requirement applies to textiles that can be removed and washed.

Dimensional changes after washing and drying must not exceed:

- ± 2% for textiles used in seating furniture

Test procedure to be followed:

- Wash once
- Temperature, washing program and detergent as stated on the care label
- Drying as stated on the care label

Test method:

The tests must be performed in accordance with EN ISO 6330 Textiles – Domestic washing and drying procedures for textile testing, in combination with ISO 5077 Textiles – Determination of dimensional change in washing and drying, or an equivalent standard.

- A test report showing compliance with the requirement.

O116 Colour fastness to light

The requirement does not apply to white textiles.

Colour fastness to light must be at least level 5.

Level 4 may be permitted if the textile is lightly dyed (standard depth <1/12 in accordance with 105 A06) and consists of mixes containing more than 20% wool or other keratin fibres, or of mixes containing more than 20% flax or other bast fibres.

Tests must be performed in accordance with EN ISO 105 B02 or an equivalent standard.

- A test report showing compliance with the requirement.

O117 Colour fastness to washing or dry cleaning

The requirement does not apply to white products, products that are neither dyed nor printed or textiles that are not intended to be washed or dry cleaned.

Colour fastness to washing or dry cleaning must be at least:

- Colour change: level 3–4
- Discolouration: level 3–4

Test method for washing: Tests must be performed in accordance with ISO 105 C06t (a single wash at the temperature stated on the product) or an equivalent standard.

Test method for dry cleaning: The test must be carried out in accordance with ISO 105 D01.

- A test report showing compliance with the requirement.

O118 Colour fastness to rubbing (wet)

The requirement does not apply to white products or products that are neither dyed nor printed.

Colour fastness to wet rubbing must be at least level 3–4.

Tests must be performed in accordance with ISO 105 X12 or an equivalent standard.

- A test report showing compliance with the requirement.

O119 Colour fastness to rubbing (dry)

The requirement does not apply to white textile products or textile products that are neither dyed nor printed.

Colour fastness to dry rubbing must be at least level 4.

Tests must be performed in accordance with ISO 105 X12 or an equivalent standard.

- A test report showing compliance with the requirement.

O120 Wear resistance

Fabric for furniture upholstery (seating) must have the following wear resistance (Martindale):

- For use in domestic environments: 30,000
- For use in non-domestic environments: 50,000
- Furniture upholstery on furniture for non-domestic environments that are marketed for extra hard / hard use: 90,000

Tests must be performed in accordance with EN ISO 12947–2 or an equivalent standard.

- A test report showing compliance with the requirement.

O121 Pilling – upholstery fabric

Upholstery fabric to seating furniture must have pilling resistance as given in the table below:

Textile type	Requirement level
Domestic use	3–4 (5000 rubs)
Non-domestic use	4 (5000 rubs)
Textiles made of wool or wool mixtures	3–4 (5000 rubs)

Test method: Testing in accordance with EN ISO 12945–2 or an equivalent standard.

T̄ A test report showing compliance with the requirement.

4.12.1 Quality requirements coated fabrics

The requirement only applies to coated fabrics and are based on the requirements of EU Ecolabel's criteria for furniture. Back coating is not included here unless the fabric is also surface coated.

O122 Coated fabrics

The quality requirements to coated fabrics are given in the table below:

Property	Requirement	Test method
Tensile strength	CH ≥ 35 daN and TR ≥ 20 daN	ISO 1421
Tear resistance of coated fabrics	CH ≥ 2,5 daN and TR ≥ 2 daN	ISO 13937/2
Colour fastness	≥ 6	EN ISO 105–B02
Abrasion resistance (Martindale method)	≥ 75 000	ISO 5470/2
Determination of coating adhesion	CH ≥ 1,5 daN and TR ≥ 1,5 daN	EN 2411

Where: daN = deca Newtons, CH = Warp and TR = Weft

T̄ A test report showing compliance with the requirement.

4.12.2 Quality requirements mattress covers

O123 Dimensional changes after washing and drying

The requirement does not apply to knitted fabrics/textile.

The requirement applies to textiles that can be removed and washed. Dimensional changes after washing and drying must not exceed:

- ± 3% for woven and ± 5% for non-woven covers.

Test procedure to be followed:

- Wash once
- Temperature, washing program and detergent as stated on the care label
- Drying as stated on the care label

Test method:

The tests must be performed in accordance with EN ISO 6330 Textiles – Domestic washing and drying procedures for textile testing, in combination with ISO 5077 Textiles – Determination of dimensional change in washing and drying, or an equivalent standard.

- A test report showing compliance with the requirement.

O124 Mattress covers – mechanical properties

The requirement to mechanical resistance is given in the table below:

Property	Requirement	Test method
Tear strength	Woven fabrics ≥ 15 N Nonwoven fabrics ≥ 20 N Knitted fabrics: not applicable	ISO 13937–2 (woven fabrics) ISO 9073–4 (nonwoven fabrics)
Seam slippage	Woven fabrics ≥ 16 picks: maximum 6 mm Woven fabrics < 16 picks: maximum 10 mm Knitted fabrics and nonwovens: not applicable	ISO 13936–2 (under a load of 60 N for all woven fabrics) or
	As above. The test result should be divided by 2 *(i.e. result of 12Nm2 – 12/2=6)*	ISO 13936–2 (under a load of 180 N for all woven fabrics)
Tensile strength	Woven fabrics ≥ 350 N Knitted fabrics and nonwovens: not applicable	ISO 13934–1

- A test report showing compliance with the requirement.

4.12.3 Requirement for other parts of textiles

The requirements for other textile parts are based on testing of the finished textile and essentially correspond to the requirements set in the criteria for Nordic Ecolabelling of baby products with textiles. Several of the requirements can be documented with Oeko-Tex certificate class II, except for requirements for formaldehyde where class I or II is required.

O125 Biocides and antibacterial substances

Chemicals with the following properties must not be added to and/or used in fibres, rolls of fabrics or the textile end-product:

- Antibacterial substances (including silver ions, silver nanoparticles and copper nanoparticles)
- Biocides in the form of pure active substances or as biocidal products.

This requirement also applies to the transport of the textiles.

The ban does not apply to natural antibacterial effect in materials.

Preservation used in chemical raw materials ("in can" preservation is not covered by the ban).

- A declaration of compliance with the requirement from the manufacturer/supplier of textile.

O126 Flame retardants

The following flame retardants are prohibited:

- Halogenated flame retardants
- Organophosphate flame retardants

Flame retardants must also meet requirement O127.

- A declaration from the textile manufacturer stating that no halogenated and/or organophosphate flame retardants have been added to textiles or during the production process.
- Documentation in compliance with the requirement O127.

O127 Classification of chemical products

Chemical products used in the dyeing process shall not be classified in any of the hazard categories in the table below.

CLP Regulation 1272/2008		
Hazard class	**Hazard category**	**Hazard code**
Hazardous to the aquatic environment	Aquatic Acute 1 Aquatic Chronic 1 Aquatic Chronic 2 Ozone	H400 H410 H411 H420
Carcinogenicity*	Carc. 1A or 1B Carc. 2	H350 H351
Germ cell mutagenicity*	Muta. 1A or 1B Muta. 2	H340 H341
Toxic for reproduction*	Repr. 1A or 1B Repr. 2 Lact.	H360 H361 H362
Acute toxicity	Acute Tox 1 or 2 Acute Tox 1 or 2 Acute Tox 1 or 2 Acute Tox 3 Acute Tox 3 Acute Tox 3	H300 H310 H330 H301 H311 H331
Specific target organ toxicity with single or repeated exposure	STOT SE 1 STOT RE 1	H370 H372
Sensitising on inhalation or skin contact	Resp. Sens. 1, 1A or 1B Skin Sens. 1, 1A or 1B	H334** H317**

**Including all combinations of stated exposure route and stated specific effect. For example, H350 also covers classification H350i.*

*** Non-disperse dyes are exempt from the prohibition of H334 and H317, provided that non-dusting formulations are used or that full or semi-automatic dosing is used. If semi-automatic dosing is used, the manual handling of the dyes must be carried out using the correct personal protective equipment in accordance with safety data sheets (SDS) and/ or the use of technical measures such as local ventilation.*

- Declaration from the textile manufacturer that the requirement is fulfilled.
- For exempted non-disperse dyes: Declaration that non-dusting formulations of these are used or that the requirement to full or semi-automatic dosing is fulfilled.

- Safety data sheet for additives in compliance with current European legislation (Annex II of REACH, Regulation (EC) No. 1907/2006).

O128 Extractable metals

Extractable metals must be tested in accordance with: Extraction: EN ISO 105–E04 (perspiration-proof (acidic)). Detection: ICP-MS or ICP-OES.

For the individual textile part, the extractable metals must not exceed the limits in the table below:

Metal	Extractable metal in mg/kg
Antimony (Sb)	30.0 mg/kg
Arsenic (As)	1.0 mg/kg
Cadmium (Cd)	0.1 mg/kg
Chromium (Cr)	2.0 mg/kg
Cobalt (Co)	4.0 mg/kg
Copper (Cu)	50.0 mg/kg
Lead (Pb)	1.0 mg/kg
Nickel (Ni)	4.0 mg/kg
Mercury (Hg)	0.02 mg/kg

- Test report showing that the requirement is fulfilled.
- Alternatively, a certificate for Oeko-Tex 100 class I or II or GOTS version 4 (or later versions) can also be used as documentation.

O129 Total metal content

For the individual textile, the total content of the following metals must not exceed:

- Lead (Pb): 90 mg/kg.
- Cadmium (Cd): 45 mg/kg.

The metal content must be tested in accordance with EPA 3050 B (ICP/MS).

- Test report showing that the requirement is fulfilled.
- Alternatively, a certificate from Oeko-Tex 100 class I or II or GOTS version 4 (or later versions) can also be used as documentation.

O130 Formaldehyde in textile

The amount of free and partly hydrolysable formaldehyde in the finished textile may not exceed 16 ppm for the individual textile element.

Testing must be in accordance with EN ISO 14184–1.

- Test report showing that the requirement is fulfilled, or certificate from Oeko-Tex 100 class I or II or certificate from GOTS version 4 (or later versions), can also be used as documentation.

O131 Polycyclic aromatic hydrocarbons (PAHs)

For the individual textile element which includes more than 10% by weight synthetic fibre, the sum of the PAHs stated here must be below 10 mg/kg and each individual PAH must be below 1.0 mg/kg.

The requirement concerns the following PAHs:

Substance name	CAS No.	Substance name	CAS No.
Benzo[A]Pyrene	50–32–8	Indeno[1,2,3-cd]pyrene	193–39–5
Benzo[E]Pyrene	192–97–2	Acenaphthylene	208–96–8
Benzo[A]Anthracene	56–55–3	Acenaphthene	83–32–9
Dibenzo[A,H]Anthracene	53–70–3	Anthracene	120–12–7
Benzo[B]Fluoranthene	205–99–2	Fluorene	86–73–7
Benzo[J]Fluoranthene	205–82–3	Naphthaline	91–20–3
Benzo[K]Fluoranthene	207–08–9	Phenanthrene	85–01–8
Chrysene	218–01–9	Fluoranthene	206–44–0
Benzo[ghi]perylene	191–24–2	Pyrene	129–00–0

Must be tested in accordance with ISO 18287 or ZEK 01.2–08 (GC/MS).

- Test report showing that the requirement is fulfilled. A certificate from Oeko-Tex 100 class I or II can also be used as documentation.

O132 Pesticides in cotton and other natural seed fibres of cellulose, as well as flax, bamboo or other bast fibres

Textile elements of 100% organic fibre are exempt from the requirement.

The requirement concerns textile elements which include cotton or other natural seed fibres of cellulose, and flax, bamboo or other bast fibres.

The total sum of pesticides in the individual textile element may not exceed 1.0 mg/kg.

The pesticides to be tested for are:

- Aldrin, captafol, chlordane, DDT, dieldrin, endrin, heptachlor, hexachlorobenzene, hexachlorocyclohexane (total isomers), 2,4,5-T, chlordimeform, chlorobenzilate, dinoseb with salts, monocrotophos, pentachlorophenol, toxaphene, methamidophos, methyl parathion, parathion, phosphamidon, gluphosinate and glyphosate.

The content must be tested in accordance with Section 64 LFGB L 00.0034 (GC/MS); Section 64 LFGB L 00.00–114 (LC/MS/MS) or equivalent EN test standards (assessed by a test institute or Nordic Swan Ecolabelling).

- Test report showing fulfilment of the requirement, or valid certificate showing that the fibres are organic.

- A certificate from Oeko-Tex 100 class I or II or GOTS version 4 (or later versions) can also be used as documentation.

O133 Ectoparasiticides in wool and other keratin fibres

The requirement concerns textile elements that include wool or other keratin fibres, in any amount.

Textile elements of 100% organic wool fibres, or which have documented that the textile element fulfils requirement O108, are exempt from this requirement.

The total sum of ectoparasiticides in the individual textile element may not exceed 1.0 mg/kg.

The ectoparasiticides to be tested for are:

- γ-hexachlorocyclohexane (lindan), α-hexachlorocyclohexane, β-hexachlorocyclohexane, δ-hexachlorocyclohexane, aldrin, dieldrin, endrin, p,p'-DDT and p,p'-DDD, cypermethrin, deltamethrin, fenvalerate, cyhalothrin, flumethrin, diazinon, propetamphos, chlorfenvinphos, dichlorphenthion, chlorpyriphos, phenchlorphos, diflubenzuron and triflumuron.

The content must be tested in accordance with Section 64 LFGB L 00.0034 (GC/MS); Section 64 LFGB L 00.00–114 (LC/MS/MS).

- Test report showing fulfilment of the requirement, or valid certificate showing that the fibres are organic.
- Certificate from Oeko-Tex 100 class I or II or GOTS version 4 (or later versions) can also be used as documentation.

4.13 Padding materials

Padding material to which requirements are set and can be included in a Nordic Swan Ecolabelled furniture are polyurethane foam (PUR), polyester fibre, synthetic latex, recycled textile waste and natural padding materials, such as natural latex, coir (coconut fibre), straw, down and feathers. The first requirements in the chapter apply to all padding materials. The additional requirements given later in the chapter apply to certain types of padding materials.

Padding materials evaluated for compliance with the Nordic Swan Ecolabel’s criteria for Textiles, hides and leather, generation 5 or later or the EU Ecolabel criteria for Bed mattresses, version 2014 or later already meet the requirements in this section. Only the name, manufacturer and licence number of the licence that includes the padding material need to be submitted.

4.13.1 Material requirements

O134 Recycled padding materials

Recycled padding materials must not contain halogenated flame retardants.

Recycled padding material (both foam and other natural padding materials such as down and feathers) must meet the requirements for substances specified in Annexes 4 and 5 of the Oeko-Tex 100 standard class II.

Test methods as specified in Testing Methods Standard 100 by Oeko-Tex.

Any additives to the recycled padding material must comply with O139.

Recycled material is defined according to ISO 14021, see definitions.

- Documentation showing that the material is recycled in compliance with ISO14021.
- A declaration from the supplier of the recycled padding material that it does not contain halogenated flame retardants.
- Test reports or Oeko-Tex 100 class II certificate showing that the requirement is fulfilled.

O135 Renewable padding materials

The species name (Latin and English) and geographic origin (country) must be stated for the renewable raw material.

The renewable raw materials must either:

- Be residual products from other production processes, e.g. straw from grain production or
- Meet the relevant requirements for fibre given in chapter 4.11.3.

- Name and geographic origin of the renewable raw materials.
- A description of the raw material showing that it is a residual product or documentation in compliance with the relevant requirement in chapter 4.11.3.

O136 Ethical requirements for feathers and down

The use of feathers and down plucked from live birds is prohibited.

Force feeding the birds is prohibited.

Recycled* down and feathers are exempt from the requirement, but it must be documented through a traceability system that the down and feathers are recycled.

**Recycled down and feathers are defined here as post-consumer recycled material in accordance with the ISO 14021 standard.*

- A Responsible Down Standard certificate or a certificate from another relevant standard that fulfils the requirement.
- Recycled down and feathers: Recycled Global Standard certificate, version 4 or later. Or documentation from a supplier of recycled down or feathers showing that it is a post-consumer recycled material.

O137 Manufacture of polyurethane foam

CFC, HCFC, HFC, methylene chloride or other halogenated organic compounds must not be used as blowing agents.
Protective measures must be taken when handling isocyanates to reduce employee exposure as far as possible. The Workplace Exposure Limits for air* concentrations of isocyanates in areas where employees are working without protective equipment are:

- MDI (CAS No. 101–68–8): Average over an 8-hour period must not exceed 0.005 ppm (0.05 mg/m^3)
- TDI (CAS No. 584–84–9 and 91–08–7): Average over an 8-hour period must not exceed 0.005 ppm (0.04 mg/m^3)

**If the legislation in the individual country has lower limit values than stated in the requirement, it is the limit values of the legislation that must be met.*

- A declaration from the manufacturer of padding materials stating which blowing agent has been used.
- A description of the safety measures taken and the statutory Workplace Exposure Limits for isocyanates in the country of manufacture. If the statutory limits are the same or more stringent than the threshold limit values in the requirement, no further documentation is required. If the statutory limits are less stringent, a description of how air concentration levels of isocyanates are measured must be submitted, along with a test report showing compliance with the threshold limit values specified in the requirement.

O138 Content of butadiene in synthetic latex

The content of butadiene in synthetic latex must be less than 1 mg/kg (ppm).
Gas chromatography with flame ionisation detection must be used to determine the concentration. Before the analysis is performed, the latex foam must be ground and weighed, and the sample placed in a headspace vial.

- A test report from the latex manufacturer showing that the requirement is fulfilled.

4.13.2 Chemical requirements – padding materials

O139 Chemicals used in the production/treatment of padding materials

The following substances shall not be an ingoing substance (see Definitions) in chemical products used in the production or treatment of padding materials:

- Substances on the Candidate List*
  - The following applies to the siloxanes D4, D5 and D6: D4 (CAS No. 556–67–2), D5 (CAS No. 541–02–6) or D6 (CAS No. 540–97–6) must only be included in the form of residues from raw material production and is permitted for each in quantities up to 1000 ppm in the silicone raw material (chemical).
- Perfluorinated and polyfluorinated alkylated substances (PFAS)
- Halogenated organic compounds. Exemptions** for:
  - Adhesives containing polychloroprene for production of mattresses and upholstered furniture if the emission of the rest monomer chloroprene (2-chloro-1,3butadiene) is ≤ 1 µg/m^3 after 3 days, measured with the chamber method EN ISO 16000 or equivalent methods. The exception is not valid for mattresses designed for children.

*** Perfluorinated and Polyfluorinated alkyl substances are covered by their own bullet and are not included in the exemption.*

- Organophosphate flame retardants***
- Substances classified as carcinogenic in categories 1A/1B/2 (H350, H351), mutagenic in categories 1A/1B/2 (H340, H341) or reprotoxic in categories 1A/1B/2/Lact (H360, H361, H362) according to the CLP Regulation 1272/2008. Exemptions for:
  - 1,3-butadiene (CAS No. 106–99–0) that is used in the manufacture of synthetic latex from the classifications H340 and H350 if subsequent requirements regarding residual monomers are met, see O144

  - formaldehyde (CAS No. 50–00–0) from the classification H350 if subsequent requirements regarding emissions are met, see O147
  - methylene diphenyl diisocyanate (MDI) and toluene diisocyanate (TDI) in the production of polyurethane foam if requirement O143 is met.
  - tin octoate (CAS No. 301–10–0) when used as a catalyst in the production of polyurethane foam
- Phthalates
- Organotin compounds
- Biocides or biocide products that are added to the padding material for a disinfecting or antibacterial purpose

**The Candidate list can be found here: https://echa.europa.eu/candidate-list-table*

****Exemption can be granted in specific cases where it can be documented that the furniture is to be sold on a market where regulatory requirements on fire safety demands testing with «open flame test» (EN 597–2 or equivalent). The flame retardant must meet O105. Please note that furniture with organophosphate flame retardants can be sold as Nordic Swan Ecolabelled only on the specific market and to the specific area of use where these regulatory requirements apply.*

- A declaration from the manufacturer of padding material.
- For natural padding materials without chemical additives or treatments: A declaration from the supplier that verifies this.
- If the exemption is used: Documentation from the furniture manufacturer which shows that the regulatory requirements for fire safety require testing in accordance with EN 597–2 or an equivalent test.
- If the exemption is used: The furniture manufacturer must state area of use, and in which markets the product with organophosphate flame retardants is sold and have a routine that ensures that the conditions in the exemption are met.

O140 Dyes

Dyes may only be added to padding materials to distinguish between different qualities (e.g. hard and soft foam) within the same type of filling.
Metal complex dyes that have a classification in the table below must not be used.

CLP Regulation 1272/2008		
Hazard class	**Hazard category**	**Hazard code**
Hazardous to the aquatic environment	Aquatic Acute 1 Aquatic Chronic 1 Aquatic Chronic 2	H400 H410 H411
Carcinogenicity*	Carc. 1A or 1B Carc. 2	H350 H351
Germ cell mutagenicity*	Muta. 1A or 1B Muta. 2	H340 H341
Toxic for reproduction*	Repr. 1A or 1B Repr. 2 Lact.	H360 H361 H362

Acute toxicity	Acute Tox 1 or 2 Acute Tox 1 or 2 Acute Tox 1 or 2 Acute Tox 3 Acute Tox 3 Acute Tox 3	H300 H310 H330 H301 H311 H331
Specific target organ toxicity with single or repeated exposure	STOT SE 1 STOT RE 1	H370 H372

**Including all combinations of stated exposure route and stated specific effect. For example, H350 also covers classification H350i.*

- A declaration from the manufacturer of the padding material that no dyes have been added or have only been added for the purpose of distinguishing between different qualities.
- Safety data sheet in accordance with Appendix II of REACH (Regulation No. (EC) 1907/2006) for any added dyes.

4.13.3 Requirements for emissions

O141 Requirements for emissions – foam padding materials

Foam padding materials, such as polyurethane foam and latex foam, must meet the requirements for emissions in the table below. Emissions testing must be carried out in compliance with ISO 16000 series of standards or EN 16516 test methods.

Substance or substance group	Threshold limit value (mg/m^3)
Formaldehyde (CAS No. 50–00–0)	0.1
Toluene (CAS No. 108–88–3)	0.1
Styrene (CAS No. 100–42–5)	0.005
4-4-Vinylcyclohexene (CAS No. 100–40–3)	0.002
4-Phenylcyclohexene (CAS No. 4994–16–5)	0.03
Vinyl chloride (CAS No. 75–01–4)	0.002
Volatile aromatic hydrocarbons (VAH)	0.3
Volatile organic compounds (VOC)	0.5

- A test report showing that the threshold limit values in the requirement have been met.
- Alternatively, an Oeko-Tex Standard 100 certificate (all classes) or CertiPUR certificate can be used as documentation for the requirement.

O142 N-nitrosamines in latex

If accelerators that form N-nitrosamines* have been used in the manufacture of latex, emissions must not exceed 0.0005 mg/m^3 in compliance with EN 16516 or equivalent test methods.

The requirement applies to both natural latex and synthetic latex.

**n-nitrosodimethylamine (NDMA), n-nitrosodiethylamine (NDEA), n-nitrosomethylethylamine (NMEA), nnitrosodi-i-propylamine (NDIPA), n-nitrosodi-n-*

propylamine (NDPA), n-nitrosodi-n-butylamine (NDBA), nnitrosopyrrolidinone (NPYR), n-nitrosopiperidine (NPIP), n-nitrosomorpholine (NMOR)

- A declaration from the latex manufacturer that no accelerators that form N-nitrosamines have been used, or a test report showing that the threshold limit value has been met.

4.14 Hide and leather

There are different sets of requirements for hide and leather depending on the amount contained in the product and the function. The most comprehensive requirements are set to hide and leather which are covers, e.g. covers on sofas and chairs. Hide and leather used as such covers are included in a relatively large amount and also come into contact with skin. Hide and leather previously had to comply with all the requirements specified in the criteria for the Nordic Swan Ecolabelling of textiles, hide and leather. Requirements are set for leather and leather that is included with more than 1% by weight in the product.

Many of the requirements in this chapter are harmonized or partially harmonized with the requirements set out in the criteria for Nordic Ecolabelling of textiles, leather and leather. Reference is therefore made to the background document for these criteria for a more general background to the requirements.

4.14.1 Requirements for hide and leather regardless of the amount in the product

O143 Chromium in hide and leather

The extractable chromium content of the finished leather or hide (including finishing) must be less than 200 mg / kg (mass of chromium (total) / dry weight of leather or hide) according to EN ISO 17072–1.

Processed hide or leather (including finishing) must not contain chromium VI in compliance with EN ISO 17075 (detection limit 3 ppm) or equivalent.

- A test report showing compliance with the requirement for total chromium and chromium VI.

O144 Cadmium and lead

Cadmium and lead shall not be found in processed hides/skins or leather.

The content of cadmium and lead shall be tested according to the methods AAS, ICP-OES or ICP-MS (detection limit 10 ppm).

- A test report from the tannery showing that the requirement is fulfilled.

O145 Biocides and antibacterial substances

The addition and/or integration of substances that may have a biocidal and/or antibacterial effect into hides/skins or leather is not permitted. This includes chemicals with the following properties:

- Antibacterial substances (including silver ions, silver nanoparticles and copper nanoparticles)

- Biocides in the form of pure active substances or as biocidal products

The requirement also applies during the storage and transport of hides/skins and leather.

Exemption is given for the use of biocidal active substances in the actual tanning process if the active substance is permitted for leather and hide in EU Regulation (EU) no. 528/2012.

Biocides/antibacterial substances include silver compounds, organotin compounds, chlorophenols, nano silver and nanogold.

- Declaration from the producer of the hide/skin or leather that the requirement is fulfilled.
- When using the exemption, a list of the biocidal active substances used must also be submitted.

4.14.2 Requirements for hide and leather – covers

O146 Classification of chemicals

The chemicals used must not be classified in any of the hazard categories set out in the table below. The requirement applies to all chemicals used in every step of manufacturing leather and hides/skins (including finishing).

CLP Regulation 1272/2008		
Hazard class	**Hazard category**	**Hazard code**
Hazardous to the aquatic environment	Aquatic Acute 1 Aquatic Chronic 1 Aquatic Chronic 2 Ozone	H400 H410 H411 H420
Carcinogenicity*	Carc. 1A or 1B Carc. 2	H350 H351
Germ cell mutagenicity*	Muta. 1A or 1B Muta. 2	H340 H341
Toxic for reproduction*	Repr. 1A or 1B Repr. 2 Lact.	H360 H361 H362
Acute toxicity	Acute Tox 1 or 2 Acute Tox 1 or 2 Acute Tox 1 or 2 Acute Tox 3 Acute Tox 3 Acute Tox 3	H300 H310 H330 H301 H311 H331
Specific target organ toxicity with single or repeated exposure	STOT SE 1 STOT RE 1	H370 H372
Sensitising on inhalation or skin contact	Resp. Sens. 1, 1A or 1B Skin Sens. 1, 1A or 1B	H334** H317**

**Including all combinations of stated exposure route and stated specific effect. For example, H350 also covers classification H350i.*

Exceptions are granted for the use of biocidal active substances in the actual tanning process, if the active substance is permitted for leather and leather in EU Regulation (EU) no. 528/2012.

***Non-disperse dyes are exempt from the prohibition of H334 and H317, provided that non-dusting formulations are used or that full or semi-automatic dosing is used. If semi-automatic*

dosing is used, the manual handling of the dyes must be carried out using the correct personal protective equipment in accordance with safety data sheets (SDS) and/ or the use of technical measures such as local ventilation.

- Declaration from the chemical manufacturer that the requirement is fulfilled.
- When using the exemption, a list of the biocidal active substances used must be submitted.
- For exempted non-disperse dyes: Declaration that non-dusting formulations of these are used or that the requirement to full or semi-automatic dosing is fulfilled.

O147 Classification of ingoing substances in chemical products

Chemical products must not contain any ingoing substances (see definitions) that have any of the classifications stated in the table below. The requirement applies to all chemicals used in every step of manufacturing leather and hides/skins (including finishing).

CLP Regulation 1272/2008		
Hazard class	**Hazard category**	**Hazard code**
Carcinogenic*	Carc. 1A or 1B Carc. 2	H350 H351
Germ cell mutagenic*	Muta. 1A or 1B Muta. 2	H340 H341
Toxic for reproduction*	Repr. 1A or 1B Repr. 2 Lact.	H360 H361 H362

**Including all combinations of stated exposure route and stated specific effect. For example, H350 also covers classification H350i.*

- Declaration from the chemical manufacturer that the requirement is fulfilled.

O148 Prohibited substances

The following substances must not be present as an ingoing substance (see definitions) in chemical products used to produce hides/skins and leather. The requirement applies to all chemicals used in every step of manufacturing leather and hides/skins (including finishing).

- Substances on the Candidate List*
    - The following applies to the siloxanes D4, D5 and D6: D4 (CAS No. 556–67–2), D5 (CAS No. 541–02–6) or D6 (CAS No. 540–97–6) must only be included in the form of residues from raw material production and is permitted for each in quantities up to 1000 ppm in the silicone raw material (chemical).
- Substances that are PBT (Persistent, Bioaccumulative and Toxic) or vPvB (very Persistent and very Bioaccumulative) as set out in the criteria of REACH Annex XIII
- Potential or identified endocrine disruptors, listed in any of the following "Endocrine Disruptor Lists" List I; II and III.

Note: Substances moved to "Substances no longer on list" and not present on Lists I-III, are no longer excluded, except for those on sublist II where concern remains. Nordic Ecolabelling will assess these on a case-by-case basis.

- Flame retardants (e.g. short chain chloroparaffins)

- Perfluorinated and polyfluorinated alkylated substances (PFAS)
- Nanoparticles**
- Heavy metals in dyes and pigments***
- Azo dyes that may release carcinogenic aromatic amines (see Appendix 5)
- Phthalates
- Organotin compounds
- Chlorinated solvents, including chlorophenols and chlorobenzenes
- Alkylphenols, alkylphenol ethoxylates (APEO) and other alkylphenol derivates****
- Linear alkylbenzene sulphonates (LAS)
- Aziridines and polyaziridines
- EDTA (ethylene diamine tetraacetic acid) and DTPA (diethylene triamine pentaacetate)

** The Candidate List can be found here: (https://echa.europa.eu/candidate-list-table)*

*** An exemption is made for pigments.*

**** Exemptions from the requirement are granted for metal impurities in dyes and pigments up to the amounts set out in ETAD, Annex 2 "Heavy metal limits for dyes": antimony (50 ppm), arsenic (50 ppm), cadmium (20 ppm), chromium (100 ppm), lead (100 ppm), mercury (4 ppm), zinc (1500 ppm), copper (250 ppm), nickel (200 ppm), tin (250 ppm), barium (100 ppm), cobalt (500 ppm), iron (2500 ppm), manganese (1000 ppm), selenium (20 ppm) and silver (100 ppm).*

***** Alkylphenol derivatives are defined as substances that release alkylphenols when they break down.*

t̄ Declaration from the chemical manufacturer or chemical supplier that the requirement is fulfilled.

O149 Sources of hides, skins and leather

Only skins and hides from the following animals can be used: fish*, sheep, goats, cattle, horses, pigs, elk, deer and reindeer.

**Skin from fish on the IUCN Redlist is not allowed.*

t̄ The applicant must provide a declaration from the leather manufacturer or leather supplier that the hides/skins used have come from animals farmed for production of milk, wool and/or meat/fish.

4.14.3 Quality requirements for hide and leather

O150 Tear strength for leather

Tear strength must be more than 20 N. Testing must be performed in accordance with ISO 3377 or equivalent.

t̄ Test report showing that the requirement is fulfilled.

O151 Flexing test

The requirement only applies to leather with a surface coating.

When testing leather's flexing resistance, the leather must manage 20,000 test repetitions (20 kc) without sustaining visible damage.

The test must be performed in accordance with ISO 5402 or equivalent.

t̄ Test report showing that the requirement is fulfilled.

O152 Colour fastness to water

The requirement applies to leather that has been dyed or surface-coated.

Colour fastness when exposed to water must be at least level 3 for leather that is dyed or has a surface finish.

The test must be performed in accordance with ISO 11642 or equivalent.

t̄ Test report showing that the requirement is fulfilled.

O153 Colour fastness to wear

Colour fastness during wet and dry wear must be at least level 3 for leather that is dyed or has a surface finish.

For vegetable tanned leather where no finishing is done, colour fastness is accepted for wet and dry wear of at least 2.

The test must be performed in accordance with ISO 11640 or equivalent, with 20 repetitions for wet wear and 50 repetitions for dry wear. The results are to be assessed using ISO 105–A02 and ISO 105–A03 or equivalent.

t̄ Test report showing that the requirement is fulfilled.

4.15 Materials for sound absorption

Fibre products that are made, for example, from polyester and recycled textile waste and are used as sound absorption material must meet the relevant requirements for padding materials in chapter 4.13. Textiles that are used to cover the sound absorption material must meet the relevant requirements for textile.

Mineral raw materials that are used for acoustic insulation, for example in a partition wall, and make up more than 5% by weight of the finished furniture product, must meet the requirement in this chapter.

O154 Mineral raw materials for acoustic insulation

The mineral raw materials used must meet relevant requirements set in the Nordic Ecolabel criteria for Panels and mouldings for interior use, generation 7 or later.

Mineral raw materials that have been examined and are included as material in a licence for Nordic Swan Ecolabelled acoustic panels in accordance with the criteria for Panels and mouldings for interior use, generation 7 or later automatically meet the requirement.

- Documentation in accordance with the requirements in the criteria for Panels and mouldings for interior use, generation 7 or later.
- Name, manufacturer, and licence number for the Nordic Swan Ecolabelled acoustic panel where the mineral raw materials are included.

4.16 Glass

The requirements in this section apply to glass that makes up more than 5% by weight in the finished furniture/fitment. The requirements do not apply to smaller parts such as electrical components, displays and fibreglass used as reinforcement for plastic. Requirement O157 for recycled glass applies to glass that is included with more than 30% by weight in the furniture/fitment.

O155 Glass

Glass can be used if the following requirements are met:

- Lead glazing, crystal glass and wire reinforced glass must not be used.
- Glass must be readily replaceable should it become damaged or broken.
- It must be possible to recycle the glass.
- Mirror glass must not have a metal coating that contains copper.
- Lead-based paint used in a metal coating for mirror glass must not contain more than 0.2% by weight of lead.

- A declaration from the furniture manufacturer stating which type of glass is used in the furniture.
- User instructions or other document informing the customer how to replace damaged glass.
- A declaration from the glass supplier that the glass can be recycled.
- Mirror glass: A declaration from the mirror glass manufacturer that the metal coating does not contain copper, that any paint used does not contain lead or that the lead content in the paint is below 0.2% by weight.

O156 Surface treatment of glass

The glass must not be surface treated with chemical products and nanomaterials* with antibacterial or disinfectant properties.

The term antibacterial means chemical products that prevent or inhibit growth of microorganisms, such as bacteria or fungi. Silver ions, silver nanoparticles, gold nanoparticles and copper nanoparticles are classed as antibacterial agents.

** In accordance with the definition of a nanomaterial adopted by the European Commission (2022/C 229/01), see definitions.*

- A declaration from the manufacturer of the glass.

4.16.1 Requirements if glass is included with more than 30% by weight in the furniture/fitment

O157 Recycled glass

At least 15% by weight of the glass must consist of recycled glass.

Recycled glass is defined as pre- and post-consumer in accordance with ISO 14021, see Definitions.

- Declaration from the glass manufacturer stating the proportion of recycled glass according to the definition in the requirement.

4.17 Linoleum

The requirement in this section applies when linoleum makes up more than 5% by weight of the finished furniture.

O158 Linoleum

Linoleum that is used must fulfil relevant requirements or be inspected and included as a material in a licence for Nordic Swan Ecolabelled linoleum flooring in compliance with the criteria for Floor Coverings, generation 7 or later.

- Documentation in accordance with the requirements in the criteria for Nordic Ecolabelling of floor coverings, generation 7 or later.
- Name, manufacturer, and licence number for the Nordic Swan Ecolabelled linoleum flooring where the linoleum has been inspected.

4.18 Natural stone and agglomerated stone

Natural stone and agglomerated stone are new materials in these criteria. The requirements are based on the EU's revised criteria for hard coverings, version 2020. Nordic Ecolabelling also sets requirements for general principles and rights for workers.

O159 Natural stone and agglomerated stone

Natural stone and agglomerated stone must meet relevant requirements in the EU Ecolabel's criteria for Hard Coverings, version 2021 or later.

- Documentation in accordance with the documentation requirements in the EU Ecolabel's criteria for Hard Coverings, version 2021 or later.

O160 General principles and rights

The licensee shall ensure that quarries and further processing of natural and agglomerated stones used in production comply with:

- Relevant national laws and regulations
- The following International Labour Organization (ILO) conventions:
    - Prohibition of forced labour (ILO Convention Nos. 29 and 105)

- Freedom of organization and protection of the right to organize and conduct collective bargaining (ILO Convention Nos. 87, 98, 135 and 154)
- Prohibition of child labour (ILO Convention Nos. 138, 182 and 79 and ILO Recommendation No. 146)
- No discrimination (ILO Convention 100 and 111 UN Convention on the Elimination of Forms of Discrimination against Women)
- No brutal treatment – Physical abuse or punishment, as well as threats of physical abuse are prohibited. The same applies to sexual or other offenses.
- Workplace health and safety (ILO Convention No. 155 and ILO Recommendation No. 164)
- Reasonable salary (ILO Convention No. 131)
- Working hours (ILO Convention Nos. 1 and 14)

The licensee shall have a publicly available policy for work with social and ethical requirements, and written routines and procedures to ensure that this is followed at quarries and subsequent processing facilities.

- Publicly available policy for work with social and ethical requirements.
- Written routines and procedures to ensure that the quarries and subsequent processing facilities comply with the requirement.

4.19 Licence maintenance

The purpose of the licence maintenance is to ensure that fundamental quality assurance is dealt with appropriately.

O161 Customer complaints

The licensee must guarantee that the quality of the Nordic Swan Ecolabel product or service does not deteriorate during the validity period of the licence. Therefore, the licensee must keep an archive over customer complaints.

Note that the original routine must be in one Nordic language or in English.

- Upload your company’s routine for handling and archiving customer complaints.

O162 Traceability

The licensee must be able to trace the Nordic Swan Ecolabelled products in the production. A manufactured / sold product should be able to trace back to the occasion (time and date) and the location (specific factory) and, in relevant cases, also which machine / production line where it was produced. In addition, it should be possible to connect the product with the actual raw material used.

You can upload your company’s routine or a description of the actions to ensure traceability in your company.

- Please upload your routine or a description.

5 Criteria version history

Nordic Ecolabelling adopted version 6.0 of the criteria for furniture and fitments on 29 October 2025. The criteria are valid until 31 December 2029.

6 How to apply and regulations for the Nordic Ecolabelling

Application and costs

For information about the application process and fees for this product group, please refer to the respective national website. For contact information see the beginning of this document.

The application consists of an application form/web form and documentation showing that the requirements are fulfilled.

Licence validity

The Nordic Swan Ecolabel licence is valid providing the criteria are fulfilled and until the criteria expire. The validity period of the criteria may be prolonged or adjusted, in which case the licence is automatically prolonged, and the licensee informed.

Revised criteria shall be published at least one year prior to the expiry of the present criteria. The licensee is then offered the opportunity to renew their licence.

On-site inspection

In connection with handling of the application, Nordic Ecolabelling normally performs on-site inspection visit/-s to ensure adherence to the requirements. For such an inspection, data used for calculations, original copies of submitted certificates, test records, purchase statistics, and similar documents that support the application must be available for examination.

Queries

Please contact Nordic Ecolabelling if you have any queries or require further information. See contact info in the beginning of this document. Further information and assistance (such as calculation sheets or electronic application help) is available. Visit the relevant national website for further information.

Follow-up inspections

Nordic Ecolabelling may decide to check whether furniture and fitments fulfil Nordic Ecolabelling requirements during the licence period. This may involve a site visit, random sampling, or similar test.

The licence may be revoked if it is evident that furniture and fitments does not meet the requirements.

Random samples may also be taken in-store and analysed by an independent laboratory. If the requirements are not met, Nordic Ecolabelling may charge the analysis costs to the licensee.

Regulations for the Nordic Ecolabelling of products

When the Nordic Swan Ecolabel is used on products the licence number shall be included.

More information on graphical guidelines, regulations and fees can be found at www.nordic-swan-ecolabel.org/regulations

Appendix 1 Laboratories and methods for testing and analysis

General requirements for test and analysis laboratories

Tests must be carried out in a correct and competent way. The analysis laboratory/test institute must be impartial and professional.

If accreditation is not separately required, the test and/or analysis laboratory must comply with the general requirements of the EN ISO 17025 standard for the quality control of test and calibration laboratories or have official GLP status.

The applicant's laboratory can be approved if it is accredited and complies with the requirements of the standard EN ISO 17025.

When testing quality and performance properties, the applicant's own laboratory can be approved even if it is not accredited. The following applies:

- The laboratory has a certified quality system (ISO 9001) which includes testing, and
- The laboratory can show that the test results obtained are similar to the results from an accredited test laboratory through initial tests performed as parallel tests. Parallel tests must as a minimum be performed when test standards are updates, and
- The laboratory performs the tests in accordance with an established plan for the current test standard and documents the selection of products in a product series for worst case tests, and
- An independent inspection body shall, on the basis of test reports, confirm that the manufacturer's test results are consistent with the results of an accredited laboratory. This can, for example, be evaluated as part of an inspection of the laboratory's quality system carried out by the inspection body for certification of the quality system.

Test method for COD / TOC emissions

COD content should be tested according to ISO6060 or equivalent. If another analysis method is used, the licence applicant must show that it is equivalent. An analysis of PCOD or BOD may also be used as verification if there is a correlation with COD. The method for measuring TOC is ISO 8245 Guidelines for the determination of total organic carbon (TOC) and dissolved organic carbon (DOC).

Sample frequency: Emissions to water are calculated as the annual average value and are based on at least one representative daily sample per week. Alternatively, a sampling frequency set by the authorities may also be approved.

Sampling: Water samples must be taken after the process drainage water has been treated in the internal purification plant. The flow at the time of sampling must be indicated. If the process drainage water is purified externally along with other wastewater, the analysis results must be reduced accordingly by the documented COD efficiency at the external purification plant. The analyses must be carried out on unfiltered and unsedimented samples in accordance with standard ISO 6060.

Appendix 2 Energy calculation wood-based panels and laminate

The following applies to the energy calculation in the production of wood-based panels and laminate:

1. Energy consumption is calculated as an annual average for the entire business or the production line that is relevant for Nordic Swan Ecolabelled furniture / furnishings.

2. The energy consumption, calculated as MJ / kg panel, shall include the primary panel production and production of the main raw materials, which are included in the panel. The main raw materials are raw materials that make up more than 2% by weight of the finished board (e.g. wood fibre and glue).

System delimitation for calculation:

- Energy consumption from the extraction of raw materials shall not be included in the calculation.
- For panel production, the energy calculation must be based on data from and including raw material handling up to and including the finished panel, before any surface treatment. The calculation is thus exclusive of cultivation and felling of the wood, but including drying of wood and conveyor belts both at the sawmill and in the production line as well as the panel production itself. Transport in all phases and energy consumption during surface treatment shall not be included. Lamination of the panel must, however, be included in the calculation.
- For the manufacture of chemical products, such as glue, the energy calculation shall be based on data from the production of both glue and the constituent raw materials. The energy content of the raw material must not be included. In the absence of specific energy data for the adhesive, a value for adhesive of 15 MJ / kg (use solution) can exceptionally be used. When using several different subcontractors for the same type of raw material, it is accepted that the calculation is made on the supplier that is most often used.
- With regard to fuel energy, both energy from purchased fuel, internally produced fuel and energy from residual products must be included. Self-produced energy and surplus energy that is resold must be stated, but does not count in the calculation as used energy. Self-produced energy refers to energy (electricity and heat) that has not been purchased from an external supplier. Internally produced fuel sources and residual products are not considered self-produced energy.

Appendix 3 Energy requirements for paper and pulp production

Energy calculation guidelines

Use of energy in the form of fuel and electricity is subject to requirements. Through information on the actual energy consumption during production in relation to set reference values, an energy point is calculated.

The energy calculation covers the entire paper product; both the paper production and the pulps used. Fillers in paper and transport of raw materials as well as within the factory area shall not be included in the energy calculation.

Non-integrated pulp mill

Electricity

The calculations must include both purchased and on-site produced electricity.

Electricity = on-site produced electricity + purchased electricity - sold electricity.

The calculation of electricity consumption must be based on invoices and readings from electricity meters. On-site produced electricity is documented using readings from electricity meters. The requirement covers all processes from debarking to drying the pulp. An exemption applies to electricity for offices or lighting in the factory area. The average electricity consumption can be used for all pulps if the pulp mill only produces pulps of equivalent quality using the same type of process.

Fuel

The calculation must include both purchased fuel and fuel produced at the plant, divided into renewable and fossil fuels. The pulp producer must report the fuel used for on-site generated electricity and should deduct the fuel for electricity before reporting it to the paper manufacturer. The paper manufacturer deducts the fuel consumption from internally produced electricity using a factor of 1.25 in its own energy calculation.

Fuel pulp = fuel produced at the plant + purchased fuel - sold fuel * (sold fuel and/or heat/0,8)

The amount of fuel purchased must be adjusted to the quantities at the start and end of the current year. Consumption of internally produced fuel from bark, shavings and other wood residues is calculated using the thermal values for the fuels used or measured.

**Excess energy*

Excess energy sold in the form of electricity, steam or heat is subtracted from the total consumption. The amount of fuel used to produce electricity or heat is calculated by dividing the sold electricity or heat by 0.8. This is equivalent to an average efficiency for the total production of electricity and heat.

Alternatively, the actual efficiency of the plant in the conversion of fuel to heat energy can be used.

Verification

An overview of the factory's energy supply system showing the number of boilers, with information about the boiler effect and which fuel is used.

Report on the amount of purchased, on-site produced and sold electricity.

Report on the amount of purchased, on-site produced and sold fuel/heat

Conversion factors and efficiency must be stated if thermal energy has been re-calculated to fuel.

The calculation sheet produced by Nordic Ecolabelling can be used.

Non-integrated paper mill

Electricity

The calculations must include both purchased and on-site produced electricity.

Electricity = on-site produced electricity + purchased electricity - sold electricity.

The calculation of electricity consumption must be based on invoices and readings from electricity meters. On-site produced electricity is documented using readings from electricity meters. The requirement covers all processes from pulping to drying the base paper. An exemption applies to electricity for offices or lighting in the factory area. The average electricity consumption can be used for all paper if the paper mill only produces paper of equivalent quality using the same type of process.

Fuel

All purchased fuel must be included in the calculations, divided into fossil and renewable fuels.

Fuel paper = purchased fuel - sold heat converted to excess energy*

The amount of purchased fuel must be adjusted to the quantities at the start and end of the current year.

**Excess energy*

Excess energy sold in the form of electricity, steam or heat is subtracted from the total consumption. The amount of fuel used to generate electricity or heat that is sold off is calculated by dividing the sold electricity or heat by 0.8. The coefficient of 0.8 is equivalent to the average energy efficiency for total heat and electricity production. Alternatively, the actual energy efficiency of the plant in the conversion of fuel to heat energy can be used.

Verification

An overview of the paper machinery's energy supply system showing the number of boilers, with information about the boiler effect and which fuel is used.

Report on the amount of purchased, on-site produced and sold electricity.

Report on the amount of purchased, on-site produced and sold fuel/heat

Conversion factors and efficiency must be stated if thermal energy has been re-calculated to fuel.

The calculation sheet produced by Nordic Ecolabelling can be used.

Steam

If excess steam from another production process is used (e.g. from another industry), the energy content of the steam must be included in the calculation. In this case, Table 1, the steam table should be used. If steam from electric boilers is used, the energy content must be converted to fuel in the same way, but the energy content must be multiplied by 1.25.

Energy calculation, paper production

Energy score for paper production

Energy scores for $P_{paper(electricity)}$ and $P_{paper(fuel)}$ for paper production are calculated using the following formulas:

$$P_{paper\_electricity} = \frac{Electricity_{consumed}}{Electricity_{reference}}$$

$$P_{paper\_fuel} = \frac{Fuel_{consumed} - 1.25 \cdot in - house\ generated\ electricity}{Fuel_{reference}}$$

The following reference values for kraft paper must be used:

$Electricity_{reference}$ = 1600 kWh/ADt

$Fuel_{reference}$ = 2100 kWh/ADt

Verification

Calculation of energy score. The calculation sheet produced by Nordic Ecolabelling can be used.

Energy score when a mixture of different pulp types are used

The following formulas are used to calculate the energy score when a mixture of different pulp types are used:

$$P_{pulp\_electricity} = \sum_{i=1}^{n} P_{pulp\_electricity\_i} \cdot pulp_i$$

$$P_{pulp\_fuel} = \sum_{i=1}^{n} P_{pulp\_fuel\_i} \cdot pulp_i$$

$Pulp_i$ is the percentage of the individual pulp relative to the total pulp mixture. Due to wastage and differences in water content, the sum total of the pulp may be greater than 1. $P_{pulp(electricity)i}$ is the energy score for electricity for pulp i. $P_{pulp(fuel)i}$ is the energy score for fuel for $pulp_i$.

Verification

Calculation of energy score. The calculation sheet produced by Nordic Ecolabelling can be used.

Total energy score for paper and pulp production

The total energy score for both electricity and fuel consumption for the paper production, including pulp production, is calculated using the formulas below:

$$P_{electriciy} = P_{electriciy\_pulp} + P_{electriciy\_paper}$$

$$P_{fuel} = P_{fuel\_pulp} + P_{fuel\_paper}$$

The amount of fuel used to produce electricity in the pulp mill must be deducted by the paper manufacturer from the values received from the pulp producer using a factor of 1.25.

Worst case calculations must be included to show that each pulp recipe meets the requirements if no specific calculations are reported for each pulp mixture.

Verification

The documentation must include calculations with sub-totals. The base values used for consumed fuel and electricity must be stated. Worst case calculations must be included to show that each pulp recipe meets the requirements if no specific pulp-mixture calculations are reported for each pulp mixture present. The calculation sheet produced by Nordic Ecolabelling can be used.

Energy score for pulp production

Energy scores for $P_{pulp(electricity)}$ and $P_{pulp(fuel)}$ for paper production are calculated using the following formulas:

$$P_{pulp\_electricity\_i} = \frac{Electricity_{consumed}}{Electricity_{reference}}$$

$$P_{pulp\_fuel\_i} = \frac{Fuel_{consumed} - 1.25 \cdot in - house\ generated\ electricity}{Fuel_{reference}}$$

The table below shows the reference values for electricity and fuel:

Table 1: Reference values pulp

Process	Fuel kWh/t, Ref. value	Electricity kWh/t, Ref. value
Bleached chemical pulp	3600	650
Dried, bleached chemical pulp	4600	700
Unbleached chemical pulp	3200	550
Dried, bleached chemical pulp	4200	600
NSSC	3200	700
Dried NCCS	4100	750
CTMP	N/A	1500
Dried CTMP	900	1500
DIP	300	450
Dried DIP	1200	500
TMP	N/A	2200
Dried TMP	900	2250

Slip	N/A	2000
Dried slip	900	2050

Verification

Calculation of energy score. The calculation sheet produced by Nordic Ecolabelling can be used.

Table 2: Steam table

Enthalpy in gauged steam, h´´, as a function of absolute pressure, p or temperature, t. Enthalpy is divided by an efficiency of 0.9 and added to the heat consumption.

p Bar	t 0C	h´´ KJ/kg	p bar	t 0C	h´´ KJ/kg
0.50	81.3	2646.0	16.0	201.4	2791.7
0.60	86.0	2653.6	17.0	204.3	2793.4
0.80	93.5	2665.8	18.0	207.1	2794.8
1.00	99.6	2675.4	19.0	209.8	2796.1
1.20	104.8	2683.4	20.0	212.4	2797.2
1.40	109.3	2690.3	22.0	217.2	2799.1
1.60	113.3	2696.2	24.0	221.8	2800.4
1.80	116.9	2701.5	26.0	226.0	2801.4
2.00	120.2	2706.3	28.0	230.1	2802.0
2.50	127.4	2716.4	30.0	233.0	2802.3
3.00	133.5	2724.7	32.0	237.5	2802.3
3.50	138.9	2731.6	34.0	240.9	2802.1
4.00	143.6	2737.6	36.0	244.1	2801.7
4.50	147.9	2742.9	38.0	247.3	2801.1
5.00	151.8	2717.5	40.0	250.3	2800.3
6.00	158.8	2755.5	45.0	257.4	2797.7
7.00	165.0	2762.0	50.0	263.9	2794.2
8.00	170.4	2767.5	55.0	269.9	2789.9
9.00	175.4	2772.1	60.0	275.6	2785.0
10.00	179.9	2776.2	65.0	280.8	2779.5
11.00	184.0	2779.7	70.0	285.8	2773.5
12.00	188.0	2782.7	80.0	295.0	2759.9
13.00	191.6	2785.4	90.0	303.3	2744.6
14.00	195.0	2787.8	100.0	311.0	2727.7
15.00	198.3	2789.9	110.0	318.1	2709.3

Source: Thermal Engineering Data, which refers to Schmidt, E.: Properties of water and Steam in Sl.Units, 1969. Springer-Verlag and R. Oldenbourg 1969.

Appendix 4 Azo dyes and aromatic amines

Carcinogenic aromatic amines	CAS No.
4-aminobiphenyl	92–67–1
Benzidine	92–87–5
4-chloro-o-toluidine	95–69–2
2-naphthylamine	91–59–8
o-amino-azotoluene	97–56–3
2-amino-4-nitrotoluene	99–55–8
p-chloraniline	106–47–8
2,4-diaminoanisole	615–05–4
4,4’-diaminodiphenylmethane	101–77–9
3,3’-dichlorobenzidine	91–94–1
3,3’-dimethoxybenzidine	119–90–4
3,3’-dimethoxybenzidine	119–93–7
3,3’-dimethyl-4,4’-diaminodiphenylmethane	838–88–0
p-cresidine	120–71–8
4,4’-oxydianiline	101–80–4
4,4’-thiodianiline	139–65–1
o-toluidine	95–53–4
2,4-diaminotoluene	95–80–7
2,4,5-trimethylaniline	137–17–7
4-aminoazobenzene	60–09–3
o-anisidine	90–04–0
2,4-xylidine	95–68–1
2,6-xylidine	87–62–7
4,4'-methylene-bis-(2-chloro-aniline)	101–14–4
2-amino-5-nitroanisole	97–52–9
m-nitroaniline	99–09–2
2-amino-4-nitrophenol	99–57–0
m-phenylenediamine	108–45–2
2-amino-5-nitrothiazole	121–66–4
2-amino-5-nitrophenol	121–88–0
p-aminophenol	123–30–80
p-phenetidine	156–43–4
2-methyl-p-phenylenediamine; 2,5-diaminotoluene	615–50–9
2-methyl-p-phenylenediamine; 2,5-diaminotoluene	95–70–5
2-methyl-p-phenylenediamine; 2,5-diaminotoluene	25376–45–8
6-chloro-2,4-dinitroaniline	3531–19–9

Appendix 5 Guidelines for standard, renewable commodities

Nordic Ecolabelling sets requirements on the standards to which cultivated commodities are certified. These requirements are described below. Each individual national sustainability standard and each certification system is reviewed by Nordic Ecolabelling to ensure that the requirements are fulfilled.

Requirements on standards

- The standard must balance economic, ecological and social interests and comply with the Rio Declaration's principles, Agenda 21 and the Forest Principles, and respect relevant international conventions and agreements.
- The standard must contain absolute requirements and promote and contribute towards sustainable cultivation. Nordic Ecolabelling places special emphasis on the standard including effective requirements and that the requirements protect the biodiversity.
- The standard must be available to the general public. The standard must have been developed in an open process in which stakeholders with ecological, economic and social interests have been invited to participate.

The requirements related to the sustainable standards are formulated as process requirements. The basis is that if stakeholders agree on the economic, social and environmental aspects of the standard, this safeguards an acceptable requirement level.

If a sustainability standard is developed or approved by stakeholders with ecological, economic and social interests, the standard may maintain an acceptable standard. Accordingly, Nordic Ecolabelling requires that the standard balances these three interests and that representatives from all three areas are invited to participate in development of the sustainable standard.

The standard must set absolute requirements that must be fulfilled for the certification. This ensures that the agriculture management fulfils an acceptable level regarding the environment. Since Nordic Ecolabelling requires that the standard must promote and contribute towards sustainable cultivation, the standard must be assessed and revised regularly for process improvement and successively reduce environmental impact.

Requirements on certification system

- The certification system must be open, have significant national or international credibility and be able to verify that the requirements in the sustainable standard are fulfilled.

Requirements on certification body

- The certification body must be independent, credible and capable of verifying that the requirements of the standard have been fulfilled. The certification body must also be able to communicate the results and to facilitate the effective implementation of the standard.

The certification system must be designed to verify that the requirements of the standard are fulfilled. The method used for certification must be repeatable and applicable so the requirements can be verified. Certification must be in respect to a specific sustainable standard. There must be inspection prior to certification.

Requirements on Chain of Custody (CoC) certification

- Chain of Custody certification must be issued by an accredited, competent third party.
- The system shall stipulate requirements regarding the chain of custody that assure traceability, documentation and controls throughout the production chain.

Documentation

- Copy of cultivation standard, name, address and telephone number to the organisation who has worked out the standard and audit rapports.

- References to persons who represents stakeholders with ecological, economic and social interests who have been invited to participate.

- Nordic Ecolabelling may request further documents to examine whether the requirements of the standard and certification system in question can be approved.