

Nordic Ecolabelling of  
**Tissue paper**



Version 5.11 • 11 October 2011 - 31 December 2024



# Content

What is Nordic Ecolabelled Tissue paper?	3
Why choose the Nordic Ecolabel?	3
What can carry the Nordic Ecolabel?	3
How to apply	4
1 Environmental requirements	6
1.1 Description of the tissue paper	6
1.2 Basic requirements for pulp and paper manufacture	6
1.3 Energy and CO <sub>2</sub>	6
1.4 Emissions to water and air	8
1.5 Packaging	11
2 Quality and regulatory requirements	11
3 Analysis	12
Regulations for the Nordic Ecolabelling of products	14
Follow-up inspections	14
Criteria version history	14
New criteria	15
Glossary	15
Appendix 1 Softeners	
Appendix 2 Chloro-organic compounds in wet strength agents and auxiliary chemicals	
Appendix 3 Additives in the finished product	
Appendix 4 Annual reporting to Nordic Ecolabelling	

005 Tissue paper, version 5.11, 10 October 2023

This document is a translation of an original in Swedish. In case of dispute, the original document should be taken as authoritative.

---

## Addresses

In 1989, the Nordic Council of Ministers decided to introduce a voluntary official ecolabel, the Nordic 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  
Danish Standard Foundation  
Göteborgs Plads 1, DK-2150 Nordhavn  
Fischersgade 56, DK-9670 Løgstør  
Tel: +45 72 300 450  
info@ecolabel.dk  
www.svanemaerket.dk

### Iceland

Ecolabelling Iceland  
Umhverfisstofnun  
Suðurlandsbraut 24  
IS-108 Reykjavík  
Tel: +354 591 20 00  
svanurinn@ust.is  
www.svanurinn.is

### Finland

Ecolabelling Finland  
Annankatu 25  
FI-00100 Helsinki  
Tel: +358 9 61 22 50 00  
joutsen@ecolabel.fi  
www.ecolabel.fi

### Norway

Ecolabelling Norway  
Henrik Ibsens gate 20  
NO-0255 Oslo  
Tel: +47 24 14 46 00  
info@svanemarket.no  
www.svanemarket.no

### Sweden

Ecolabelling Sweden  
Box 38114  
SE-100 64 Stockholm  
Tel: +46 8 55 55 24 00  
info@svanen.se  
www.svanen.se

This document may only be copied in its entirety and without any type of change. It may be quoted from provided that Nordic Ecolabelling is stated as the source.

## What is Nordic Ecolabelled Tissue paper?

The Nordic Ecolabel is an official eco-label with absolute requirements. Nordic Ecolabelled tissue paper has less impact on the environment than most other papers in its product group and the Nordic Ecolabel signifies that the product fulfils strict environmental requirements.

This means that the paper has minimum environmental impact with regard to production, use and waste. Nordic Ecolabelled tissue paper is made of fibres from sustainable forestry and/or recovered fibre and has been produced with low levels of emissions to air and water. Energy consumption during production is low and limits are placed on the use of chemicals hazardous to health and the environment, both during production and in the paper product itself.

Nordic Ecolabelling's environmental requirements provide individual manufacturers guidance on how they can contribute to the development of an ecologically sustainable society.

The Nordic Ecolabel on a paper product confirms that resources have been used efficiently and that environmentally suitable production methods have been employed. The raw materials used in the product have been evaluated by Nordic Ecolabelling and only raw materials of the highest quality in environmental terms may be used in Nordic Ecolabelled products.

## Why choose the Nordic Ecolabel?

- The licensee may use the Nordic Ecolabel trademark for marketing. The Nordic Ecolabel is a very well-known and well-reputed trademark in the Nordic region.
- The Nordic Ecolabel is a simple way of communicating environmental work and commitment to customers.
- The Nordic Ecolabel clarifies the most important environmental impacts and thus shows how a company can cut emissions, resource consumption and waste management.
- Environmentally suitable operations prepare tissue papers for future environmental legislation.
- Nordic Ecolabelling can be seen as providing a business with guidance on the work of environmental improvements.
- The Nordic Ecolabel not only covers environmental issues but also quality requirements, since the environment and quality often go hand in hand. This means that a Nordic Ecolabel licence can also be seen as a mark of quality.

## What can carry the Nordic Ecolabel?

Cellulose-based tissue paper made from virgin and/or recovered fibres may be licensed to carry the Nordic Ecolabel. This means that, for example, toilet paper, kitchen towels, paper towels and paper handkerchiefs may bear the Nordic Ecolabel.

Tissue paper products containing cleaning agents designed for the cleaning of surfaces (e.g. floor cleaning agents) are not eligible for the Nordic Ecolabel in accordance with these criteria.

Wet wipes may be labelled in accordance with the criteria for cosmetic products, which specify that the paper material must fulfil the Nordic Ecolabel or EU Ecolabel requirements on tissue paper. Products that contain viscose or that are laminated with non-cellulose based material are not in accordance with Nordic Ecolabelling's tissue paper criteria. Several of these products are covered by the Nordic Ecolabel criteria for hygiene products.

Contact Nordic Ecolabelling for further information on the ecolabelling of such products.

## How to apply

Nordic Ecolabelling requirements for paper products are subdivided into a basic module, a chemical module and supplementary modules for various product areas. The basic module sets out requirements for paper and pulp manufacturing, while the chemical module contains requirements in respect of chemicals. The various supplementary modules contain specific requirements for various product groups, and this is, therefore, the supplementary module for Tissue paper.

### Application and costs

Applications consist of a web form and a completed electronic application aid with uploaded documentation of compliance (as specified in the requirements). My Swan Account can be accessed via the internet addresses shown on page 2 of this document or via <https://www.nordic-ecolabel.org/certification/paper-pulp-printing/my-swan-account/papertissue-producers/>

For information about the application process and fees for this productgroup, please refer to the respective national web site. For addresses see page 2.

### What is required?

The application must consist of an application form/web form and documentation showing that the requirements are fulfilled.

Each requirement is marked with the letter O (obligatory requirement) and a number. All the requirements in this document and the relevant requirements in the basic and chemical modules must be met before a licence may be granted. Applications are to be submitted with the aid of the electronic application aid on My Swan Account.

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:

☒ Enclosure

ℙ The 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.

### License validity

The ecolabel licence is valid providing the criteria are fulfilled and until the criteria expire. The validity period of the criteria may be extended or adjusted, in which case the licence is automatically extended 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 an on-site inspection 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 page 2 for addresses. Further information and assistance (such as calculation sheets or electronic application help) may be available. Visit the relevant national website for further information.

# 1 Environmental requirements

## 1.1 Description of the tissue paper

### 01 Description of the product

Describe the product and how it meets the definition of what may be Nordic Ecolabelled, see above under the heading “What may carry the Nordic Ecolabel?”.

Describe the manufacturing process for the product, including rendering.

Compile a list of constituent materials, e.g. production chemicals, pulps and packaging materials used. In the case of production chemicals and pulps, the trade name and the name of the supplier must be submitted. For pulps, the designation of the mill must also be submitted. Indicate the trade name of the finished product, as well as its type designation, grammage (g/m<sup>2</sup>), weight per unit volume (kg/m<sup>3</sup>) and moisture content

- Description and list as above. Samples are to be supplied upon request from Nordic Ecolabelling.

## 1.2 Basic requirements for pulp and paper manufacture

### 02 Pulp

All paper pulps used in the manufacture of Nordic Ecolabelled tissue paper must meet the requirements stipulated in the basic module and the chemical module unless otherwise indicated in the requirements below.

Has the pulp been assessed by Nordic Ecolabelling previously?

- If you answered yes to the question above, documentation must be enclosed concerning when the pulp was assessed and by which secretariat.
- If you answered no to the question above, documentation must be enclosed documenting compliance with the requirements of the basic and chemical modules.

### 03 Tissue paper products

Manufacturing of the end product must meet the requirements of the basic module and the chemical module, version 2 or later, where relevant (e.g. requirement for waste), unless otherwise indicated in the requirements below. This also applies to converters.

- Documentation demonstrating compliance with relevant requirements in the basic and chemical modules, version 2.

## 1.3 Energy and CO<sub>2</sub>

The energy score is calculated with the aid of a technical description of the production processes, where the energy consumption is compared to reference values for production. A more detailed description of documentation requirements and calculation methods is provided in version 2 of the basic module, in which  $P_{\text{electricity}}$  and  $P_{\text{fuel}}$  are also defined.  $P_{\text{electricity}(\text{total})}$  and  $P_{\text{fuel}(\text{total})}$  include the energy scores from production of both paper and the constituent pulps.

The energy calculation encompasses the entire production process – both paper manufacturing and the constituent pulp. Energy calculations do not include energy consumed in transporting raw materials or in converting and packaging. Requirement for emissions of CO<sub>2</sub> originating from transport (R11 in the basic module) are only relevant to

paper manufacturer. Pulp producers shall, however, provide data of CO<sub>2</sub> emissions from the transport of the fibre raw material or recycled paper to the pulp mill.

#### O4 Energy

The total electricity and fuel points scores for Nordic Ecolabelled tissue paper must be less than 1.15. The points score limit in the basic module is set at 1.25.

$$P_{\text{electricity(total)}} < 1.15$$

$$P_{\text{fuel(total)}} < 1.15$$

The reference values for the tissue paper machine's consumption of fuel are set at 1800 kWh/tonne, and for electricity at 1030 kWh/tonne. The same reference values shall be used for tissue paper products that are manufactured using non-woven or TAD technology.

For pulp derived from recycled fibre/DIP, use the reference values in Table 1.

**Table 1 Energy for pulp manufacturing**

Process	Fuel kWh/t Reference value	Electricity kWh/t Reference value
Recycled fibre/DIP	500	500
Dried recycled fibre/DIP	1500	700

For producers of tissue paper that:

- do not have their own energy production based on renewable raw materials and
- are not connected to a thermal power plant

the point score limit is related to the total energy consumption,  
 $P_{\text{energy (total)}} \leq 2.3$ .

☒ Calculations, performed according to Appendix 2 of the basic module (version 2), demonstrating compliance with points score limits. Nordic Ecolabelling also provides a worksheet that is to be used for these calculations.

#### O5 Emissions of CO<sub>2</sub>

Emissions of CO<sub>2</sub> from purchased electricity and from burning of fossil fuels for both heating and internal electricity generation must not exceed 1100 kg CO<sub>2</sub>/tonne paper. CO<sub>2</sub> calculations include emissions from production of both paper and constituent pulps.

Producers of tissue paper that:

- do not have their own energy production based on renewable raw materials and
- are not connected to a thermal power plant

can use a CO<sub>2</sub>-factor of 233 (equivalent to propane) for purchased electricity provided that it is produced with renewable sources of energy and the electricity mix gives a calculated CO<sub>2</sub>-factor that is lower than 233. This can be documented for example with the use of an invoice or other documentation of origin.

☒ Calculations, performed according to Appendix 2 of the basic module (version 2), demonstrating compliance with points score limits. Nordic Ecolabelling also provides a worksheet that is to be used for these calculations.

## 1.4 Emissions to water and air

### 06 Total emissions points score – $P_{\text{emissions total}}$

L The total emissions,  $P_{\text{emissions total}}$ , shall be calculated for the tissue paper product.

This total must not exceed 4.0.

$$P_{\text{emissions total}} = P_{\text{COD}} + P_{\text{P}} + P_{\text{S}} + P_{\text{NOx}} \leq 4.0$$

No individual emissions score ( $P_{\text{COD}} + P_{\text{P}} + P_{\text{S}} + P_{\text{NOx}}$ ) may exceed 1.5.

The calculation of the product's total emissions for pulp and paper production ( $P_{\text{emission total}}$ ) uses the product-specific reference values given in Table 2. To calculate the individual emission scores ( $P_{\text{COD}} + P_{\text{P}} + P_{\text{S}} + P_{\text{NOx}}$ ) and for reference values for difference pulp types, please refer to the basic module, version 2 (Appendix 3, Table 3.1). Requirements regarding the emission of AOX can be found in the basic module (R13).

**Table 2**

Type of paper	Reference values for emissions (kg/tonne paper)			
	COD <sub>ref</sub>	P <sub>ref</sub>	S <sub>ref</sub>	NO <sub>x,ref</sub>
Tissue paper	1.5	0.01	0.2	0.5

- ☒ Paper manufacturers shall supply calculations and underlying data demonstrating compliance with the requirement. Nordic Ecolabelling also provides a worksheet that is to be used for these calculations.

## Product safety and quality

### Chemicals

All chemicals involved in the production of tissue paper must comply with the requirements set out in the chemical module, version 2 or later, and the requirements specified in the supplementary module for tissue paper.

Requirements in respect of production chemicals not presented below, e.g. dyes and adhesives, are set out in the chemical module. See Table 3 for an overview of the chemical requirements stipulated in the chemical module and the supplementary module for tissue paper.

Table 3 Overview of chemical requirements, indicating in which module the requirement is stipulated.

Chemicals	Chemical module	Supplementary module for tissue paper
All production chemicals	R1, R2	
Cleaning agents and dispersants	R3	
De-inking chemicals	R4	
Biocides/slimicides	R5	
Coatings <sup>1</sup> /retention agents and other polymer containing chemicals	R6	
Softeners		O7
Wet strength agents		O8
Foam inhibitors and defoamers	R8	



Dyes	R9, R10, R11, R12	
Adhesives	R13	
Starch products	R14	
Yankee chemicals <sup>2</sup>		O8
Additives (perfumes, lotions, conditioners, cleaning agents)		O9
Paper in contact with food		O10
Content and harmful substances and bleeding		O11

<sup>1,2</sup> *Coating agents in the tissue manufacturing refer to auxiliary chemicals used for improving the properties of the paper web on the Yankee cylinder.*

## 07 Softeners

Softeners that contain quaternary Imidazoline (CAS no. 72749-55-4) are exempt from classification as N with R50, R50/53 or R51/53 / Aquatic acute 1 H400, Aquatic chronic 1 H410, Aquatic chronic 2 H411 in requirement R2 in the chemical module (version 2).

- The producer or supplier shall demonstrate compliance with the requirement by duly completing and signing the declaration in Appendix 1.

## 08 Chloro-organic substances in wet strength agents and in auxiliary chemicals

Wet strength agents may contain a total of no more than 7000 ppm (0.7%) low-molecular chloro-organic compounds epichlorohydrin (ECH), dichloroisopropanol (DCP) and chloropropanediol (CPD) – calculated on the basis of the dry matter content.

Auxiliary chemicals\* used on Yankee cylinders in tissue paper production must not contain a total of epichlorohydrin (ECH), dichloroisopropanol (DCP) or chloropropanediol (CPD) in excess of 500 ppm (0.05%).

*\*An example of auxiliary chemicals used on Yankee cylinders are coating agents used for improving the properties of the paper web on the Yankee cylinders.*

- The producer or supplier shall demonstrate compliance with the requirement by duly completing and signing the declaration in Appendix 2.

## 09 Additives in the finished product

### Perfumes

Perfumes and other fragrances are not permitted in the paper product. Essential oils or plant extracts where the function is to provide scent are not permitted.

### Cosmetic and body care additives (e.g. lotion)

Cosmetic or body care preparations and fragrant substances whose main function is other than to give the paper product a scent must meet the requirements of the Nordic Ecolabelling criteria document for Cosmetics.

### Cleaning agents

Cleaning agents designed for surface cleaning (e.g. floor cleaning) are not permitted in the paper product.

- The paper manufacturer shall demonstrate compliance with the requirement by duly completing and signing the declaration in Appendix 3 and supply documentation which shows that the criteria document for cosmetics is fulfilled.

## 010 Paper in contact with food

Paper marketed for use in contact with food must comply with EU Regulation no. 1935/2004/EC on materials and articles intended to come into contact with food as well as

Council of Europe “Guidelines for tissue paper kitchen towels and napkins”, version 1 (22.09.2004) or later.

Paper for use involving contact with food is to be labelled as such according to article 15 of EU regulation no. 1935/2004/EC.

- Confirmation from independent third-party that the regulation and guidelines are followed.
- Sample of information printed on the product’s exterior packaging.

### 011 Content of harmful substances and bleeding

Maximum permitted content for tissue paper products manufactured from recovered fibre or mixes of recovered and virgin fibre:

Parameter	Limit	Test method
Formaldehyde	1 mg/dm <sup>2</sup>	EN 1541 – aqueous extract
Glyoxal	1.5 mg/dm <sup>2</sup>	DIN 54603
PCB	0.05 mg/kg	EN ISO 15318
PCP	0.15 mg/kg	EN ISO 15320

The following requirements apply to tissue paper products manufactured from virgin fibre, recovered fibre or mixes of recovered and virgin fibre:

Parameter	Test methods and levels
Slimicides and ant-microbials	No growth inhibiting effects arising from micro-organisms according to test method EN 1104.
Optical brighteners	No bleeding according to test method EN 648, latest version, level 4-5
Dyes and printer’s ink	No bleeding according to test method EN 646, latest version, level 4-5

- Test results from an independent third party. Testing shall comply with the method described in the requirement.

## Product function

### 012 Absorption properties of kitchen towel and paper towels (both sheet and roll)

Kitchen towel and paper towels must have an absorption capacity of at least 5g water/g paper, measured over 30 seconds according to test method ENV 12625-8. The test is to be performed on the converted product.

- Test result according to test method ENV 12625-8.

### 013 Strength/perforation of kitchen towel

The ratio between the strength of the paper longitudinally and over the perforation must be at least 2 according to EN 12625-4:1999. The test must be conducted on the converted product. The requirement does not apply to kitchen towels without perforation.

- Test results according to EN 12625-4:1999.

### 014 Toilet paper

Toilet paper may not possess wet strength. The toilet paper is considered to be strong when wet if its relative wet tensile strength is greater than 10 % in the machine direction. The test must be conducted on the converted product.

Relative wet tensile strength is measured as the quotient between wet and dry tensile strength. If the tensile strength of the wet tissue paper is so low that it cannot be measured the paper is not considered to have wet strength.

- ☒ Test results. Measurement of tensile strength is to be carried out according to a standardised and reproducible method.
- ☒ Description of method for ensuring that the toilet paper does not have wet strength in those cases in which production lines switch between the manufacture of paper with and without wet strength.

## 1.5 Packaging

### 015 Packaging material

Packaging (article, group or transport packaging) for the Nordic Ecolabelled product must not be made from chlorine-based plastics.

Packaging made from a combination of materials must be suitable for recycling.

- ☒ Description of material composition of the packaging.

### 016 Design of the packaging

Packaging of the product must be optimised from a transport perspective.

- ☒ Description of how the requirement is fulfilled.

## 2 Quality and regulatory requirements

To ensure that Nordic Ecolabel requirements are fulfilled, the following procedures must be implemented.

### 017 Laws and regulations

The licence-holder must guarantee adherence to safety regulations, health and safety at work legislation, environmental legislation and conditions/concessions specific to the operations at all sites involved in production of the Nordic Ecolabelled product.

**No documentation is required, but Nordic Ecolabelling may revoke the licence if the requirement is not fulfilled.**

### 018 Ecolabelling administrators

The company shall appoint an individual responsible for ensuring the fulfilment of Nordic Ecolabel requirements, and a contact person for communications with Nordic Ecolabelling.

- ☒ A chart of the company's organisational structure detailing who is responsible for the above.

### 019 Documentation

The licensee must be able to present a copy of the application and factual and calculation data supporting the documents submitted on application (including test reports, documents from suppliers and suchlike).

- 🔍 On-site inspection.

### 020 Product quality

The licensee must guarantee the quality during production of Nordic Ecolabelled tissue paper for the validity period of the licence.

- ☒ Procedures for collating and, where necessary, dealing with claims and complaints regarding the quality of the Nordic Ecolabelled product.

**O21**    **Planned changes**

Planned changes that have a bearing on fulfilment of Nordic Ecolabel requirements must be approved, in writing, by Nordic Ecolabelling.

- Details of procedures for dealing with planned changes.

**O22**    **Unplanned nonconformities**

Unplanned nonconformities that have a bearing on fulfilment of the ecolabelling requirements must be reported to Nordic Ecolabelling in writing and recorded in an official journal.

- Procedures detailing how unplanned nonconformities are handled.

**O23**    **Traceability**

The licensee must have a traceability system for the production of the Nordic Ecolabelled product.

- Description of/procedures for fulfilment of the requirement.

**O24**    **Take-back system**

The Nordic Ecolabelling's Criteria Group decided on the 9 October 2017 to remove this requirement.

**O25**    **Annual reporting**

An annual report on compliance with environmental requirements must be submitted each year, based on the relevant checklist from Nordic Ecolabelling (Appendix 3 in this document or in the basic module). The checklist must be signed by the designated person responsible for the Nordic Ecolabelling licence and submitted to Nordic Ecolabelling. Please note that this applies to both paper and pulp.

- Appendix 4 duly completed.

**O26**    **Marketing**

The requirement is removed as decided by the Board of Directors 17 November 2014.

## 3    Analysis

### Analysis laboratories and test institutions

The analysis laboratory/test institution used must be impartial and competent. The cost of documentation and analysis must be borne by the applicant.

The analysis laboratory used must fulfil the general requirements of standard EN ISO /IEC 17025 or have official GLP status.

The manufacturer's laboratory may be approved for performance of analysis and tests if the authorities monitor the sampling and analysis process, or if the manufacturer has a quality system in place encompassing sampling and analysis and the laboratory is certified according to the ISO 9000 series. Testing and analysis of function may be performed by the producer in an uncertified laboratory, subject to assessment by Nordic Ecolabelling.

Sampling and analysis must be performed in a competent manner. The methods of analysis described in Table 4 below have been approved by Nordic Ecolabelling. As an alternative, methods of analysis considered to be equivalent by an independent and competent body will be accepted. The basic module specifies approved analysis methods in respect of pulp and paper manufacturing.

**Table 4 Methods of analysis approved by Nordic Ecolabelling**

Formaldehyde	EN 1541 – aqueous extract EPA 8315A
Glyoxal	DIN 54603
PCB	EN ISO 153 18 EPA 8270
PCP	EN ISO 15320
Slimeicides	EN 1104.
Bleeding of optical brighteners	EN 648.
Bleeding of dye and printer's ink	EN 646.
Absorption properties of tissue paper	EN 12625-8
Tensile strength of tissue paper	EN 12625-4

## 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.svanen.se/regelverk/](http://www.svanen.se/regelverk/) or at [www.nordic-swan-ecolabel.org/regulations/](http://www.nordic-swan-ecolabel.org/regulations/)

## Follow-up inspections

Nordic Ecolabelling may decide to check whether the tissue paper fulfils Nordic Ecolabel 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 the tissue paper 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.

## Criteria version history

Nordic Ecolabelling adopted version 5.0 of the criteria on the 11 October 2011. These criteria remain valid until the 31 December 2014.

On 8 February 2013 the Secretariat Manager's meeting decided to adjust requirement O7 Softeners. The new version is called 5.1.

On 15 May 2013 the Secretariat Manager's meeting decided to prolong the validity of the criteria document with two years. The new version is called 5.2 and it is valid until 31 December 2016.

On 13 May 2014 the Board of Directors decided to adjust the product group definition and requirement O9. The new version is called 5.3.

On 5 November 2015 the Nordic Ecolabelling board decided to prolong the validity of the criteria document. Some minor editorial changes in the requirements O3, O8, O24, Table 3 and annual update were also introduced. On 17 November 2014 the Board of Directors decided to remove requirement O26 Marketing. The new version is called 5.4 and it is valid until 31 December 2019.

On 20 April 2016 the Board of Directors decided to make adjustments in O4 Energy and O5 Emission of CO<sub>2</sub> for producers of tissue paper that do not have their own energy production based on renewable raw materials and are not associated with a thermal power plant. The new version is 5.5.

On the 9 October 2017 Nordic Ecolabelling's Criteria Group decided to remove O24 Take-back system. Nordic Ecolabelling's Criteria Group decided on the 14 December 2017 to prolong the criteria with 18 months. The new version is called 5.6 and it is valid until 30 June 2021.

Nordic Ecolabelling decided on 19 December 2018 to prolong the criteria with 6 months to the 31 December 2021. The new version is called 5.7.

Nordic Ecolabelling decided on the 16 December 2019 to prolong the criteria with 12 months to the 31 December 2022. The new version is called 5.8.

Nordic Ecolabelling decided on 1 June 2021 to prolong the criteria with 6 months to the 30 June 2023. The new version is called 5.9.

Nordic Ecolabelling decided on 13 September 2022 to prolong the criteria with 6 months to the 31 december 2023. The new version is called 5.10.

Nordic Ecolabelling decided on 10 October 2023 to prolong the criteria with 12 months to the 31 december 2024. The new version is called 5.11.

## New criteria

The following issues should be actively considered for the next revision:

- Limit values regarding energy, CO<sub>2</sub> and emissions to air and water.
- Wet strength agents.
- Requirements on quantities of certified fibres.
- Re-evaluation of requirements designed to promote the use of compact products, such as a requirement on weight by gram per roll or similar (e.g. weight by gram/density per roll, size of core and pallet pattern).
- Evaluate the possibilities to increase the requirements on softeners.

## Glossary

**AOX:** Adsorbable Organic Halogens

**COD:** Chemical Oxygen Demand

**CPD:** Chloropropanediol

**DCP:** Dichloroisopropanol

**DIP:** De-inked pulp

**ECH:** Epichlorohydrin

**NOx:** Nitrogen oxides

**P:** Phosphorous

**PCB:** Polychlorinated biphenyls

**PCP:** Pentachlorophenols

**S:** Sulphur

**TAD:** Through Air Drying

## Appendix 1 Softeners

Product name:
Function:
Chemical producer/supplier:

Does the softener contain quaternary Imidazoline (CAS no. 72749-55-4)?

Yes  No

If yes, is the softener classified according to requirement R2 in the chemical module, version 2 (N with R50, R50/53 or R51/53 / Aquatic acute 1 H400, Aquatic chronic 1 H410, Aquatic chronic 2 H411 exempt)?

Yes  No

We hereby certify that Nordic Ecolabelling will be immediately notified of all changes made, prior to the next revision of the criteria for tissue paper, to the composition of the product.

Place and date:	Company name/stamp:
Responsible person:	Signature of responsible person:



## Appendix 2 Chloro-organic compounds in wet strength agents and auxiliary chemicals

Product name:
Function:
Chemical producer/supplier:
Reference (e.g. name of the paper manufacture)

### Low molecular organic chlorine compounds

#### Wet strength agents

Do wet strength agents contain any of the low molecular organic compounds epichlorohydrin (ECH), dichloroisopropanol (DCP) and chloropropanediol (CPD)?

If yes, state the unambiguous chemical name, CAS number, relevant risk phrases and concentration.

\_\_\_\_\_ percentage by weight based on dry matter content

\_\_\_\_\_ percentage by weight based on dry matter content

\_\_\_\_\_ percentage by weight based on dry matter content

Please note that wet strength agents may contain a total of no more than 0.7% by weight of low-molecular chloro-organic compounds calculated on the basis of the dry matter content of the wet strength agents that have been added to the tissue paper.

#### Auxiliary chemicals used on Yankee cylinders

Does the preparation of auxiliary chemicals\* used on the Yankee cylinder contain any of the low molecular organic compounds epichlorohydrin (ECH), dichloroisopropanol (DCP) and chloropropanediol (CPD)?

*\*An example of auxiliary chemicals used on Yankee cylinders are coating agents used for improving the properties of the paper web on the Yankee cylinders.*

If yes, state the unambiguous chemical name and CAS number:

\_\_\_\_\_ percentage by weight based on dry matter content

\_\_\_\_\_ percentage by weight based on dry matter content

\_\_\_\_\_ percentage by weight based on dry matter content

Please note that these types of preparations may contain a total of no more than 0.05% by weight of low-molecular chloro-organic compounds calculated on the basis of the dry matter content of the preparation used on the Yankee cylinder.

We hereby certify that Nordic Ecolabelling will be immediately notified of all changes made, prior to the next revision of the criteria for tissue paper, to the composition of the product.

Place and date:	Company name/stamp:
Responsible person:	Signature of responsible person:

## Appendix 3 Additives in the finished product

Does the paper product contain perfume or other fragrant substances (e.g. essential oils and plant extracts)?

Yes  No

Does the paper product contain cosmetics or body care preparations and fragrant or scented substances?

Yes  No

Does the paper product contain cleaning agents designed for surface cleaning (e.g. floor cleaning agents)?

Yes  No

Signature of pulp producer/ paper producer:

Place and date:	Company name/stamp:
Responsible person:	Signature of responsible person:

## Appendix 4      Annual reporting to Nordic Ecolabelling

Form for annual update on licensed pulp and paper.

Form for paper producer

Year: \_\_\_\_\_

Name of mill:	
Name of paper:	
Amount produced*	tonne paper
Emissions from paper machine:	
COD	kg/tonne paper
P	kg/tonne paper
S	kg/tonne paper
NOX	kg/tonne paper
CO2 from paper production	kg/tonne paper
Energy use from paper machine:	
Internally produced electricity	kWh/tonne paper
Electricity consumption of the paper	kWh/tonne paper
Fuel consumption of the paper	kWh/tonne paper

*\*Amount produced is the amount of paper to which the annual emissions figure refers.*

Update a list of production chemicals used by using My Swan Account.

Form for annual update regarding pulp used in Nordic Ecolabelled products.

Form for pulp producer:

Year: \_\_\_\_\_

Name of mill:	
Name of pulp:	
Quantity produced*:	tonne pulp
% wood from certified forestry**	%

Emissions from pulp production:	
COD	kg/tonne 90% pulp
P	kg/tonne 90% pulp
S	kg/tonne 90% pulp
NO <sub>x</sub>	kg/tonne 90% pulp
AOX	kg/tonne 90% pulp
Chlorate	kg/tonne 90% pulp
EDTA/DTPA	kg/tonne 90% pulp
CO <sub>2</sub> from production	kg/tonne 90% pulp
Energy consumption from pulp production:	
Internally produced electricity	kWh/ tonne 90% pulp
Electricity consumption of the pulp	kWh/ tonne 90% pulp
Fuel consumption of the pulp	kWh/ tonne 90% pulp

*\*Quantity produced is the amount of pulp to which the annual emissions figure refers.*

*\*\*Only wood certified according to standards approved by Nordic Ecolabelling may be included.*

Update a list of production chemicals used by using My Swan Account.