# Nordic Ecolabelling



# Ecolabelling of Compost bins

# Criteria document 7 June 1996 – 30 June 2014

Version 2.9

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

#### Joint Nordic ecolabelling

In November 1989, the Nordic Council of Ministers adopted a measure to implement a voluntary, positive ecolabelling scheme in the Nordic countries. The scheme is administered by the Nordic Ecolabelling Board. The board among other things choose product groups and lay down the final criteria. Secretariats in the participating countries are responsible for implementing the scheme on national level.

The objective of ecolabelling is to provide information to consumers to enable them to select products that are the least harmful to the environment. Ecolabelling is intended to stimulate environmental concern in product development and a sustainable society.

In its work on ecolabelling Nordic Ecolabelling follows the ISO 14024 standard: "Environmental labels and declarations - Type 1 ecolabelling - Principles and Procedures". The product groups and environmental and performance requirements selected by Nordic Ecolabelling reflect the objectives, principles, practices and requirements of the standard. ISO 14024 includes the requirements that criteria should be objective, reasonable and verifiable, that interested parties should be given the opportunity to participate and that their comments are evaluated.

The criteria are based on evaluation of the environmental impacts during the actual products' life cycle. The criteria set requirements towards a number of these factors. Upon approved application all products found to meet the criteria are awarded the environmental label.

Due to new knowledge and production methods the criteria must be updated regularly. New revised criteria are presented at least 1 year prior to the expiry date. During the period of validity minor corrections may be adopted. This will normally not affect already approved licences.

A handling fee is paid upon submission of a complete application. The turnover value of the product determines the additional annual fee.

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# 1 Summary

Criteria for awarding an environmental labelling licence for compost bins have been drawn up for containers intended to compost organic household waste and garden waste. Both year-round compost bins (group A) and bins which can only operate during the warmer part of the year (group B) are included in the criteria document.

The central objective of the criteria is to ensure satisfactory performance of the compost bins. The year-round compost bins must undergo a thorough performance test over a period of 3 months in temperature down to  $-3^{\circ}$ C.

Chemicals which are particularly hazardous to the environment may not be used during the manufacturing of the container.

The requirement to use recycled materials for compost bins with frames of plastic will increase the utilization of available recycled raw material.

Comprehensive user instructions make it easier to control the biological process taking place in the container, thus minimizing adverse effects on the performance while in use. Material descriptions will make it easier to recycle or dispose of the materials of the composting container at the end of its life cycle.

A warranty and a spare part service can extend the working life of compost bins.

# 2 Definition of product group

The criteria for granting the ecolabel are concerned with commercially produced household containers intended for the composting of organic household and garden waste. Both year-round compost bins (group A) and containers which only can operate during the warmer part of the year (group B) are included in the criteria document.

Compost bins with a capacity to cater for 20 persons or more, composting toilets and closed toilet systems are not included in this product group. Nordic Ecolabelling has a separate criteria document for closed toilet systems.

# 3. Application

To apply for a swanlabel licence for a compost bin, the appropriate application form, necessary documentation and application fee must be submitted.

An application for a licence must be accompanied by the documentation specified in each individual requirement in Chapters 4, 5 and 6. The application must contain an outline specifying the documentation submitted for each individual requirement.

All requirements described in the document must be fulfilled before a product will be awarded an ecolabel.

#### 3.1 Documentation to be available with the applicant/licensee

The following documentation must be stored by the applicant during the licence period and presented upon demand in the event of an inspection visit in connection with the processing of the application or subsequent inspections at the plant/company and if requested during the processing of the application.

- a) A copy of the entire application
- b) Underlying data used in preparing the documentation submitted with the application.
- c) Test report from the performance test.
- d) The recording of planned production changes and unexpected deviations in production.
- e) Records detailing complaints on the ecolabelled product.

## 4. Environmental requirements

#### 4.1 Materials

For compost bins made of polymeric material the following % by weight of the container frame shall consist of recycled material:

Group A, year-round compost bins Group B, the warm part of the year only at least 10% by weight, excluding insulation at least 75% by weight

If the composting bin is made of polyethylene, polyethylene must have a density in excess of 935 kg/m<sup>3</sup>. This does not apply to cross linked polymers.

Metal parts such as hinges and screws which are exposed to a corrosive medium (such as compost, seepage and air) must be acid-resistant and treated to avoid corrosion.

Installing Mercury thermometer in the compost bin is not permitted.

Documentation requirement:

Statement from the producer showing

a) % by weight of recycled polymeric materials

- b) polyethylene density
- c) acid-resistance of metal parts
- d) that Mercury thermometer is not installed

#### 4.2 Health and environmentally harmful components

The chemicals used in the production of the composting bin (such as adhesives and wood preservatives) may not be classified as teratogenic (T, Xn; R60, R61, R62 or R63), mutagenic (T, Xn; R40 or R46) or carcinogenic (T, Xn; R45, R49 or R25) in any of the Nordic countries.

The wood preservative used in a composting container may not contain more than 2 % by weight of chemical substances classified as hazardous to the environment in any of the Nordic countries or according to the EU Directive 67/548/EEC.

Additives based on cadmium, lead or mercury, chlorinated or bromated paraffin, bromated diphenyl ether or phthalate, may not be present in the plastic material.

Gases classified as harmful to the ozone layer according to regulations in any of the Nordic countries may not be used in the manufacture of insulation materials.

#### Documentation:

Statement from the producer of chemicals, plastic and insulation materials showing that the requirements are met. Appendix 2 may be used by the involved parties.

#### 4.3 Structure

The compost bin must have a rodent excluder with a gap of maximum 7 x 7 mm.

If the composting bin is marketed for indoor use, there must be a facility for collecting and disposing of seepage.

It must be possible to close the lid of a composting bin in such a way that it cannot be blown open by the wind. It must be possible to secure a hinged lid in the open position when adding compost.

Any insulation should be protected from mechanical damage and water penetration.

#### Documentation:

Statement from the producer describing rodent excluder, facility for collecting and disposing of seepage, hinging and locking the lid.

#### 4.4 Durability

The composting bin should be given a 5-year guarantee covering everything except parts subject to heavy wear. The parts subject to heavy wear shall be listed in the user instructions and they must be permanently available during the warranty period, i.e. minimum 5 years after the last sale of a compost bin.

#### Documentation:

Statement from the producer describing guarantee and availability of parts subject to heavy wear.

#### 4.5 Instructions for use

Along with the composting bin, the buyer must be given user instructions in the language of the country in which it is sold. These must include the following points:

#### 4.5.1 Assembly instructions

The assembly instruction must have an illustrated guide that shows how the bin is to be put together.

#### 4.5.2 Description of intended use

The description of the intended use must make clear the type of composting bin in question.

Composting capacity in terms of the number of people it is intended to serve (pe).

The instruction for use shall contain a list, with examples, of suitable and non-suitable wastes.

#### 4.5.3 Composting instructions

Composting instructions must be appended to the user instructions. They shall describe the following points:

- an account of the regulations concerning composting of household waste
- the general principles of composting
- appropriate location for the composting container as regards hygiene
- starting the composting process
- adding waste and composting compound
- mixing
- temperature range and suitable moisture level for composting
- average composting time in normal circumstances
- assessing the readiness of the compost
- weight of a full composting bin
- weight of the bin lid
- working height
- need for secondary composting
- what to do if the compost freezes
- a troubleshooting guide for the most common problems:
  - \* the compost fails to warm up
    - \* the compost smells
    - \* vermin in the container
    - \* too much seepage inside the composting container

Any recommendations on wood preservatives for compost bins made from untreated wood must comply with the requirements for wood preservatives in section 4.2.

#### 4.5.4 Spare parts list

A list of spare parts subject to heavy wear, which are available shall be listed in the user instruction.

#### 4.5.5 Materials description

To make it easier to recycle and reuse waste, the user instructions must state the materials used in the different parts of the bin and how they shall be disposed.

Documentation for 4.5.1 - 4.5.5: Copy of instruction for use containing the above mentioned information.

### 4.6 Requirements as regards waste treatment and collection system

#### 4.6.1 Production waste

Producers of compost bins must sort their waste at source within the production area. The aim is to recycle or reuse as much of the waste as possible. A waste sorting plan must be enclosed with the application.

#### Documentation:

Declaration/description of the way in which waste is processed and if applicable sorted at source and which components that are sorted out.

4.6.2 Collection systems for products and packaging

Relevant national provisions, legislation and/or licences prevailing recycling schemes for products and packaging must be fulfilled in the countries where the products are on sale.

#### Documentation:

Declaration from the licensee on membership of recycling scheme.

#### 4.7 Requirements as regards packaging

Packaging materials containing chlorine or chlorine combinations may not be used.

Documentation:

Declaration from the supplier stating that chlorine or chlorine combinations are not present in the packaging or used in production of the packaging.

## 5 Requirements as regard functioning

Year-around compost bins (group A) shall be tested in accordance with SP-method 2856, version 2, 2002.04.24 "Testing of year-around compost bins" or later versions. The test shall be performed by an impartial test institution, e.g SP Sveriges Provnings- och Forskningsinstitut, Borås, Sweden. Compost bins shall meet the testing requirements without any additional energy.

The test method shall be performed in varying temperature over a period of minimum 12 weeks. The test method defines the organic material added and the temperature the compost must reach before the compost bin is approved.

Other compost bins (group B) do not need to be tested.

Documentation:

Copy of test report in accordance with SP-method 2856, version 2, 2002.04.24 "Testing of year-around compost bins" or later versions, performed by an impartial test institution.

# 6. Other requirements

#### 6.1 Authority requirements for working security, health and environment

The licensees are responsible for ensuring that ecolabelled products and the production thereof fulfil all prevailing working environment provisions, legislation and licences in the various production countries.

#### Documentation:

Signed application form. This requirement will not be checked at the time of application, but may result in revocation of the licence if it is found that the requirements of the authorities are not met.

### 6.2 Environmental- and quality assurance

Producers who hold an ecolabelling licence themselves or through vendors/importers must have documented procedures and instructions in place that:

- ensure that the requirements in the ecolabelling criteria are fulfilled.
- ensure that the requirements are verifiable during the licence's validity period
- ensure the quality of ecolabelled products encompassed by the licence
- outline the ways in which the organization for environmental assurance is structured to ensure that the requirements in the ecolabelling criteria are fulfilled.
- a contact person for the Ecolabelling organization is appointed.

#### Documentation:

The description of the ways in which the ecolabelling requirements are followed up, documented and reported in the daily production must contain details of the following:

- a) the organizational structure, contact person for quality and other responsible persons and their areas of responsibility,
- b) procedures for processing and reporting unforeseen deviations from the ecolabelling requirements
- c) procedures for documenting and reporting planned production changes that will affect assessment of whether the ecolabelling criteria are fulfilled
- d) the contact person's procedures for reporting b) and c) to the ecolabelling organization (external procedures for reporting to the ecolabelling organization),
- e) procedures for documenting, reporting and processing complaints on ecolabelled products.

#### f) traceability of ecolabelled products in the production line.

The licensee needs an acceptance in writing from the ecolabelling organization before any changes on the product with any reference to the requirements in the criteria document, can be carried out.

#### 6.3 Marketing material

It must be clear from the marketing material for group B bins that they are only intended to be used during the warmer part of the year.

Marketing of ecolabelled products shall be carried out in accordance with "Regulations for Nordic Ecolabelling of Products".

Documentation:

- Description of the distribution of responsibility with regard to the marketing of ecolabelled products
- Declaration that the persons marketing the ecolabelled products within the company are familiar with "Regulations for Nordic Ecolabelling of Products". (Appendix 1),

# 7 Analysis and control

#### 7.1 Requirements as regards laboratory/test institution

Sampling must be performed in a competent manner. The laboratory/test institution must be impartial and competent. The unprocessed data must be available for verification by the ecolabelling organization within the validity of the licence.

The laboratory performing the analysis must fulfil the general requirements contained in standard EN 45001/DS/EN/ISO/IEC 17025, or is an official GLP approved laboratory. The applicant will be liable for cost in connection with documentation and analysis.

#### 7.2 Follow-up inspection

Products for which an ecolabelling licence has been granted may be checked by an impartial test institution. Responsibility for submitting for checking rests with the ecolabelling organization. These checks may take the form of a spot check taken from goods on sale. The licensee will be liable for the costs if it is found that the licensee has provided definitely incorrect information to the ecolabelling organization. If not, the costs will be born by the ecolabelling organization.

## 8 Registration

The following will be documented and checked by the ecolabelling organization in connection with the registration of the licence in other participating Nordic countries:

- application form for registration
- copy of licence
- copy of marketing materials (control of section 6.3)

- instructions for use in the appropriate language (control of section 4.5)
- fulfilment of relevant national provisions of membership of recycling schemes/material recycling companies (control of section 4.6.2)

# 9 The design of the ecolabel

See "Regulations for Nordic Ecolabelling of Products", dated 12 December 2001, for more information on use of the ecolabel. The ecolabel and the allocated ID number (shown as 000-000) shall have the following design:

Group A) Year-around compost bins



000 000 Year-around composting bin

### For better waste disposal (Voluntary)

Group B) Other compost bins



000 000 Summer composting bin

#### For better waste disposal (Voluntary)

The ecolabel shall be affixed to the packaging/and or the product itself.

# 10 The validity of the criteria document

This criteria document was adopted by the Nordic Ecolabelling Board on 7 June 1996 and will remain in force until 30 June 2006. The Nordic Ecolabelling Board is required, at least 12 months prior to this date, to give notice of which criteria will apply thereafter.

During the period of validity the Nordic Ecolabelling Board may decide corrections, clarifications and/or prolongations by publishing a new version of the criteria document. This will normally not affect already approved licences.

On 4 June 1997 the Nordic Ecolabelling Board adopted a change in paragraph 5.1.1. The requirement to forbid isocyanates in the manufacture of insulation materials was omitted.

On 21 April 1998 The Nordic Ecolabelling Board prolonged the validity up to and including 31 December 2000.

On 24 March 2000 the Nordic Ecolabelling Board prolonged the criteria document with one year until 31 December 2001. (Version 2.3)

On 22 March 2001 the Nordic Ecolabelling Board prolonged the criteria document with six months up to and including 30 June 2002, version 2.4.

On 27 September 2001 the Nordic Ecolabelling Board prolonged the criteria document with twelve months up to and including 30 June 2003, version 2.5.

On 11 June 2002 the Nordic Ecolabelling Board adopted a change of the original language of the criteria document, and a move of the test method from being Nordic Ecolabelling's own to be a formal SP-method 2856, version 2, 2002.04.24 "Testing of year-around compost bins". At the same time the criteria document was prolonged with 3 years until 30 June 2006, version 2.6.

On 10 June 2005 the Nordic Ecolabelling Board prolonged the criteria document with three years up to and including 30 June 2009, version 2.7.

On 29 May 2008 the Nordic Ecolabelling Board prolonged the criteria document with three years to 30 June 2012, version 2.8.

On 22 June 2011 the Nordic Ecolabelling Board prolonged the criteria document with two years to 30 June 2014, version 2.9.

# 11. Future criteria

In future criteria requirements for density and strength in plastic materials will be investigated.

The possibility of including requirements for health and environment in surface treatment of metals will also be considered.

#### Appendix1

#### The marketing of the ecolabelled products for which a licence is sought We hereby confirm that we are aware of the rules governing the rules of the Nordic ecolabel as described in "Regulations for Nordic Ecolabelling of Products ".

We hereby undertake that the marketing of the product will comply with these regulations.

We also confirm that we are familiar with the criteria for the ecolabelling of composting bins

We undertake to ensure that the persons marketing the ecolabelled products within our company receive information on the criteria governing the ecolabelling of composting bins and "Regulations for Nordic Ecolabelling of Products".

Place/date	Name of company
Contact	
Person responsible for marketing	Telephone

A new confirmation must be submitted to the ecolabelling organization in the event of changes in the personnel.

#### Appendix 2

# Information on health and environmentally harmful substances in production of compost bins

Are any of the production chemicals classified as teratogenic (T, Xn; R60, R61, R62 or R63), mutagenic (T, Xn; R40 or R46) or carcinogenic (T, Xn; R45, R49 or R25)?

Does the plastic material contain cadmium, lead, mercury, chlorinated or bromated paraffin, bromated diphenyl ether or phthalate?

.....

Are gases classified as harmful to the ozone layer according to regulations in any of the Nordic countries used in the manufacture of insulation materials?

.....

#### Information on environmentally harmful substances in wood preservative

Name of the product
Manufacturer/Importer

ves

Does the product contain environmentally harmful substances? (see EU directive 67/548/EEC on the back )

🗌 no 👘 🗍 do i

do not know

#### Composition of the wood treatment product

Environmentally harmful substances (complete chemical name)	CAS nr	Content, % w/w
Other substances (complete chemical name)*		

#### Supplier's signature

Date Company name

Signatory Telephone

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#### Appendix 3

#### Criteria for classification of environmentally harmful components

Criteria for classification of environmentally harmful components are given in EC directive 67/548/EEC, 18th Adaptation. This directive is implemented through national regulations in the Nordic countries. The regulations include classification, labelling and declarations at the production, import, export or sales of substances that can contribute to environmental hazards. A substance is classified as dangerous for aquatic environment if

- 1) the substance is very toxic to aquatic organisms and not readily biodegradable or very toxic to aquatic organisms and potentially bioaccumulating
- 2) the substance is **very toxic** to aquatic organisms
- 3) the substance is toxic to aquatic organisms and not readily biodegradable or toxic to aquatic organisms and potentially bioaccumulating
- 4) the substance is harmful to aquatic organisms and not readily biodegradable
- 5) the substance has low solubility in water and is not readily biodegradable and is **potentially** bioaccumulating
- 6) the substance, without fulfilling the criteria 1-5, but which on the basis of available evidence concerning their degradability, predicted or observed behaviour and environmental fate, present an immediate or long-term danger, to structure and/or function of aquatic ecosystems.

#### A substance is classified as dangerous for the environment if

1. the substance on the basis of available evidence concerning its toxicity, degradability, potential to bioaccumulate and its predicted, or observed behaviour and environmental fate, can present an immediate or long-term danger, to structure and/or function of other ecosystems than the aquatic environment.

If a substance is degraded to environmentally harmful components, the substance should be classified as environmentally harmful. For other comments and decisions it is referred to the EC directive, or corresponding national regulations.

#### Toxicity

A substance is classified as verv toxic to aquatic organisms if

Fish	LC <sub>50</sub> (96 hr)	≤_1 mg/l or if
Daphnia	EC <sub>50</sub> (48 hr)	≤ 1 mg/l or if
Algae		≤ 1 mg/l.

A substance is classified as toxic to aquatic organisms when

Fish	LČ <sub>50</sub> (96 hr)	> 1 mg/l but $\leq$ 10 mg/l or if
Daphnia	EC <sub>50</sub> (48 hr)	> 1 mg/l but $\leq$ 10 mg/l or if
Algae	IC <sub>50</sub> (72 hr)	> 1 mg/l but ≤ 10 mg/l.

A substance is classified as **harmful** to aquatic organisms if

Fish	LC <sub>50</sub> (96 hr)	> 10 mg/l but $\leq$ 100 mg/l or if
Daphnia	EC <sub>50</sub> (48 hr)	> 10 mg/l but $\leq$ 100 mg/l or if
Algae	IC <sub>50</sub> (72 hr)	> 10 mg/l but ≤ 100 mg/l.

#### Degradation

A substance is considered a readily biodegradable if it degrades more than 60% (measured ads CO<sub>2</sub>/BOD) or 70% (measured as DOC) within 28 days. The test shall be carried out according to OECD Guidelines.

A substance is also considered as **readily biodegradable** if  $BOD_{5}/COD \ge 0.5$  or if other convincing scientific evidence is available to demonstrate that the substance can be degraded in the aquatic environment to a level of > 70% within 28 days.

#### Bioaccumulation

A substance shall be considered as **bioaccumulating** if BCF  $\ge$  100 or if log P<sub>ow</sub> > 3.

#### Solubility in water

A substance shall be considered as **poorly soluble** in water if the solubility is < 1 mg/l. All tests shall be carried out according to OECD Guidelines.