

Nordic Ecolabelling of

Small houses, apartment buildings and pre-school buildings



Version 2.7 • 15 December 2009 – 31 december 2015



Nordic Ecolabelling

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 Swan. 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 Standards Foundation
Kollegievej 6
DK-2920 Charlottenlund
Phone +45 72 300 450
Fax +45 72 300 451
E-mail: info@ecolabel.dk
www.ecolabel.dk

Sweden

Ecolabelling Sweden
SE-118 80 Stockholm
Phone +46 8 55 55 24 00
Fax +46 8 55 55 24 01
E-mail: svanen@ecolabel.se
www.ecolabel.se

Norway

Ecolabelling Norway
Henrik Ibsens gate 20
NO-0255 Oslo
Phone +47 24 14 46 00
Fax +47 24 14 46 01
E-mail: info@ecolabel.no
www.ecolabel.no

Finland

Ecolabelling Finland
Box 489
FIN-00101 Helsingfors
Phone +358 424 2811
Fax +358 424 281 299
E-mail: joutsen@motiva.fi
www.ecolabel.fi

Iceland

Ecolabelling Iceland
Umhverfisstofnun
Suðurlandsbraut 24
IS-108 Reykjavik
Phone +354 591 20 00
Fax +354 591 20 20
E-mail: svanurinn@ust.is
www.svanurinn.is

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

Content

What is a Nordic Ecolabelled building?	5
Why choose the Nordic Ecolabel?	5
What can carry the Nordic Ecolabel?	6
How to apply	8
What are the requirements for the Nordic Ecolabel?	9
1 Overall requirements for the licence applicant	9
2 Energy and indoor environment	10
2.1 Energy	10
2.2 Indoor environment	12
3 Material requirements	14
3.1 Chemical building products	14
3.2 Chemical substances in permanent building products	17
3.3 Timber and fibre-based materials	18
3.4 Other requirements on building products, materials and interiors	20
4 Quality management and control of the construction process	21
4.1 Requirements on the construction process	21
4.2 Points score	24
4.3 Quality management	24
5 Instructions to residents/property managers	26
Glossary	27
Marketing	28
Design of the Nordic Ecolabel	28
Sales in other Nordic countries	28
How long is a licence valid?	29
Appendix 1 List of materials	
Appendix 2 Points scored for the use of ecolabelled products	
Appendix 3 Calculation of daylight factor (applicable to pre-school buildings only)	
Appendix 4 Translation key - CLP (Regulation (EC) No 1272/2008)	
Appendix 5 Declaration regarding chemical building products	
Appendix 6 Declaration on adverse chemical substances in permanent building products	
Appendix 7 Declaration on nanoparticles in permanent building products	
Appendix 8 Declaration on procedures for securing wood and bamboo raw materials	
Appendix 9 Nordic Ecolabelling requirements on forest certification	
Appendix 10 Raw materials from certified forests or organic farming	
Appendix 11 Specification of timber (summary)	
Appendix 12a Formaldehyde in wood-based products (applicable until 31 December 2013)	
Appendix 12b Formaldehyde in wood-based products (obligatory as of 1 January 2014)	
Appendix 12c Formaldehyde in wood-based products – test methods and requirements on test laboratories	
Appendix 13 Declaration on formaldehyde in wood-based building board	
Appendix 14 Marketing of Nordic Ecolabelled small houses, apartment buildings and pre-school buildings	
Appendix 15 Quality controls of Nordic Ecolabelled buildings to be performed by an independent third party	

What is a Nordic Ecolabelled building?

Small houses, apartment buildings and pre-school buildings can be awarded the Nordic Ecolabel. Nordic Ecolabelling requirements cover the construction process, materials and energy consumption. Consideration is paid to all environmental aspects, from the raw materials to the finished building. In addition to low environmental and climatic impact, the building must offer a good indoor environment. This is guaranteed by:

- the constituent materials.
- good ventilation.
- the construction process.
- material and quality controls to prohibit built-in damp damage.

To minimise environmental impact, Nordic Ecolabelling also requires:

- the limitation of substances in construction materials that are hazardous to health and the environment.
- that the building is energy efficient.
- the environmentally suitable disposal of construction waste.
- an operation and maintenance plan for the building.

Why choose the Nordic Ecolabel?

- The licensee may use the Swan trademark for marketing. The Nordic Ecolabel, the Swan, is a very well-known and well-reputed trademark in the Nordic region.
- The Nordic Ecolabel is a cost-effective and simple way of communicating environmental performance and commitment to health and the environment to property buyers, suppliers and other interested parties such as the authorities.
- Environmentally suitable operations prepare the building manufacturer for future environmental legislation.
- Environmental issues are complex. It can take a long time and extensive resources to gain an understanding of a specific area. Nordic Ecolabelling is a valuable guide.
- The Nordic Ecolabel not only covers environmental issues but also quality requirements, since the environment and quality often go hand in hand.

What can carry the Nordic Ecolabel?

Four types of building can carry the Nordic Ecolabel:

- Small houses, including cottages and holiday homes
- Apartment buildings/Blocks of flats
- Pre-school buildings.
- Extensions (apartments and pre-school buildings) to existing buildings.

For a definition of these building types, please refer to national building regulations. The majority of requirements are common to all types of building but can differ in some specific respects.

Cottages/holiday homes must fulfil the requirements for small houses to be awarded the Nordic Ecolabel.

Non-heated annexes (garage, carport, shed or similar) must be included in a licence if it is marketed with the Nordic Ecolabelled building. A non-heated annex cannot be awarded a separate licence. Non-heated annexes are not subject to the requirements of Section 2 with the exception of O5 Permanent light sources. Heated annexes shall fulfil all requirements.

Regarding apartment buildings, the criteria apply to the entire body of the building excluding areas not designed for habitation, such as commercial premises, offices and school premises.

The basic rule is that the license applicant is responsible towards the customer for all parts of the construction of a Nordic Ecolabelled small house, apartment building or pre-school building. Some exemptions may be made to this single point responsibility regarding small houses and apartment buildings (see the list below). No exceptions may be made for pre-school buildings.

Exemptions from single point responsibility for small houses and apartment buildings

1. Kitchen fittings and appliances: A kitchen fulfilling the Nordic Ecolabel criteria for furniture and fitments and white goods (as per O6) must be recommended under O51.
2. Painting of interior walls (n/a wetrooms): Paint fulfilling the EU Ecolabel and/or Nordic Ecolabel requirements must be recommended.

Exemptions from single point responsibility for small houses

1. Fitting-up the loft: If the loft is delivered bare, the building envelope must be finished so that the requirements regarding energy and airtightness are fulfilled.
2. Painting of façades: The licence applicant must make sure that the building is primed and able to withstand at least one year of outdoor exposure without being damaged. Paint fulfilling the EU Ecolabel and/or Nordic Ecolabel requirements must be recommended.
3. Work on foundations: The purchaser may themselves perform work on the foundations in the same way as a subcontractor.

The licensee continues to have single point responsibility for the entire construction process. The building envelope must be finished so that the requirements regarding energy and airtightness are fulfilled.

Nordic Ecolabelling may on request approve other exceptions if this is considered appropriate and does not compromise the quality of the building or the customer's position.

General requirements for the Nordic Ecolabelling of small houses, apartment buildings and pre-school buildings

All areas that have not been exempted in the contract from Nordic Ecolabel requirements as specified above must fulfil the requirements described in this document. The license applicant must be able to provide Nordic Ecolabelling with documents showing fulfilment of the requirements laid down in this criteria document.

A license is awarded for a specific house type, apartment or pre-school. Modifications are permitted if these fulfil the requirements for Nordic Ecolabelling. In other words, approval may be given to use a selection of different materials and solutions for one building type (e.g. different room layouts).

Installations and services drawn up to the exterior of the building are not subject to Nordic Ecolabel criteria.

The building is Nordic Ecolabelled when it is handed over from the licensee to the buyer. Nordic Ecolabelling is not liable for the fulfilment of the criteria at a later point in time, such as after extension work.

It is the requirements imposed by Nordic Ecolabelling at the start of construction (i.e. the ecolabelling criteria that are valid at that point in time) that the building must fulfil to be allowed to be marketed as Nordic Ecolabelled.

Start of construction: See Glossary at the end of this document.

Extensions to existing buildings can be Nordic Ecolabelled if the following conditions are met:

1. The extension shall contain all the parts and functions that are necessary for the extension to function as an independent apartment building or pre-school building. Entrance, stairwell, facilities for laundry and garbage storage and similar functions can be shared with the existing building.
2. National rules and regulations for new constructions/new buildings must be applied in all the extension, since the extension is counted as a new building.
3. The annual energy consumption of the extension shall not exceed 75% of the upper limit on specific energy use as detailed by national building regulations. The calculation verifying the specific energy use can be conducted only on the extension or on the whole (extension and existing building together).
4. All other requirements shall be applied only on the extension and on shared functions/spaces in the existing building that are new constructed or newly installed.
5. It is only the extensions that can be marketed and communicated as Ecolabelled.

How to apply

The criteria for small houses, apartment buildings and pre-school buildings comprise a combination of obligatory requirements and point score requirements. The letter "O" and a number indicate obligatory requirements, which must always be met. If a certain part of a requirement only applies to a small house, apartment building or pre-school building, this is specified.

The letter "P" and a number distinguish point score requirements. Each requirement of this type gives a points score. A minimum total score must be achieved to fulfil the constraints of the Nordic Ecolabel.

Icons in the text

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:

☒ Enclose

Ⓞ Requirement checked at the licence applicant's premises.

📁 Enclose procedures for environmental and quality assurance

Documents may be sent electronically. Contact Nordic Ecolabelling for further information.

Application

The application shall be sent to Nordic Ecolabelling in the country in which the building is sold. See page two for addresses. The application documents shall comprise a completed application form and the specified documentation to demonstrate fulfilment of the requirements.

If you require further information or assistance during application, please contact the Nordic Ecolabelling office in the country in question. Web addresses and contact details can be found on page 2.

Inspection

When granting a licence, Nordic Ecolabelling checks with the licence applicant that requirements are fulfilled. Nordic Ecolabelling processes the application and checks the applicant's work procedures, material lists and suchlike. For this 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.

Enquiries

In case of any enquiries or queries, please contact Nordic Ecolabelling. See page 2 for addresses.

What are the requirements for the Nordic Ecolabel?

To be awarded the Nordic Ecolabel, a small house, apartment building or pre-school building:

- fulfil all obligatory requirements (O).
- achieve a minimum of 40% (9 of 22) of the total possible point score (P).

National requirements are used in several requirements in the criteria document.

1 Overall requirements for the licence applicant

Are the requirements met?

Yes No

O1 General description of the building

The application must provide a general description of the entire building describing indoor living areas and possible commercial premises. This document must also describe the construction method detailing the frame/supporting structure, façade, roof, foundations, ventilation system and heating system of the building or building type.

Non-heated annexes (e.g. garage, carport and shed) that are sold along with the house must be included in this description.

Optional room layouts and materials must be presented.

Small houses and apartment buildings

The description must specify which of the work detailed under "What can carry the Nordic Ecolabel?" the buyer may undertake themselves.

Pre-school buildings

The description shall specify the type of activities, number of children, and suchlike.

Description as specified above.

Appendix no. _____

O2 Responsibility for the construction process

Yes No

There must be a statement guaranteeing that the licensee holds full contractual obligation towards the buyer for the construction process up to completion of the conveyance of the property. Irrespective of who does work on the building prior to conveyance, the licensee is responsible for this work and its quality. If building contractors, for example, are engaged prior to conveyance, the licensee is responsible for ensuring that these are provided information about Nordic Ecolabel requirements for buildings and for ensuring that these are observed. The licensee must also deal with any complaints and claims between the buyer and possible building contractor.

The type of building contract offered as well as how to ensure that regular quality inspections are carried out until the building is ready for habitation must be specified. Reference can be made to Section 4 "Quality management and control for the construction process".

Small houses and apartment buildings

Exceptions to this single point responsibility may be approved as specified under "What can carry the Nordic Ecolabel".

Pre-school buildings

No exemptions are permitted.

Specification complying with the above.

Appendix no. _____

2 Energy and indoor environment

2.1 Energy

O3 Airtightness

Are the requirements met?

Yes No

A) Planned airtightness

The building must be designed to fulfil the following requirements regarding airtightness. For example, detailed plans must be submitted for areas around windows and where walls and floors and walls and the roof meet.

Sweden

	Max. leakage
Apartment buildings	0.5 l/(s*m ²) A _{om}
Small houses and pre-school buildings	0.4 l/(s*m ²) A _{om}

A_{om}: See Glossary at the end of this document.

Denmark

	Max. leakage
Apartment buildings	
2 and 3-storey buildings	0.7 l/(s*m ²) A _{bo}
4 and 5-storey buildings	0.5 l/(s*m ²) A _{bo}
6 or more storey buildings	0.4 l/(s*m ²) A _{bo}
Small houses and pre-school buildings	
Single-storey buildings	1.1 l/(s*m ²) A _{bo}
Two-storey detached and terraced buildings	0.8 l/(s*m ²) A _{bo}

For buildings with high ceilings (area of building envelope divided by the area per floor is greater than 3) air exchange must not exceed 0.40 l/s per m² building envelope for small houses and pre-school buildings, and 0.50 l/s per m² building envelope for apartment buildings.

Norway/Finland

	Max. leakage
Apartment buildings	
2 and 3-storey buildings	1.1 h ⁻¹
4 and 5-storey buildings	0.8 h ⁻¹
6 or more storey buildings	0.6 h ⁻¹
Small houses and pre-school buildings	
Single-storey buildings	1.5 h ⁻¹
Two-storey detached and terraced buildings	1.2 h ⁻¹

B) Procedures to ensure fulfilment of requirement O3 section A

The licensee must measure airtightness and have procedures to ensure compliance with the requirement for a completed building.

Test method EN 13829 or a recognised simplified test method must be used. If a simplified test method is used, leakage must be tested at a minimum of 50 Pa. The tests can be performed as part of self-inspection.

Small houses and pre-school buildings shall be measured individually.

Regarding apartment buildings and extensions to apartment buildings, a representative sample comprising a minimum of 10% of the total number of apartments shall be measured, however a minimum of one apartment.

Regarding extensions to existing building the requirement must be met by the new constructed extension.

The requirement applies to the building's surrounding area although in practice leakage test include leakage to surrounding apartments.

The results of approved tests must be kept by the licensee for each building project for as long as the licence is valid.

The procedures shall also specify which measures are to be taken if the results are unsatisfactory. If testing is performed on a sample (min. 10% of apartments), procedures shall be in place to ensure that the other units fulfil the requirement.

- Detailed plans showing how the building will fulfil the requirement. Appendix no. _____
- Procedures describing the method of pressure testing and which actions shall be taken if results are not satisfactory. Appendix no. _____
- The results of the tests performed on finished buildings must be kept by the licensee for each building project for as long as the licence is valid. Appendix no. _____

O4 Energy consumption

Yes No

The annual energy consumption of the building shall not exceed 75% of the upper limit on rational specific energy use as detailed by national building regulations.

In case new national regulations for rational specific energy use in buildings are adopted during the licence period, the licensee shall submit documentation demonstrating fulfilment of requirement O4 in regard to the new regulations before the transition period for the new regulations has expired.

Cottages and holiday homes shall fulfil the requirements for small houses.

Regarding extensions to existing buildings, the requirement shall be met by the extension. The calculation verifying the specific energy use can be conducted only on the extension or on the whole (extension and existing building all together).

- Calculations demonstrating that the building fulfils the requirements. If the energy use varies between different designs of the building, documented evidence must be provided that each design fulfils the requirements. Appendix no. _____
- If new national regulations on specific energy use in buildings are adopted during the licence period, new documentation shall be submitted. Appendix no. _____

Points achieved:

P1 Reduced energy consumption

P

One point is awarded for each increment of 2.5% by which the calculated energy use betters the limit value specified under O4. A maximum of 10 points can be awarded.

- Refer to O4. Appendix no. _____

P2 Energy from local energy source or energy recovery

P

One point is awarded for the installation of a local heat recovery system for waste hot water, solar collector or solar panel that supplies the ecolabelled building with energy.

Local refers to a system that is directly connected to the building or buildings.

- Specification of the type of energy source or energy recovery and the system's location to demonstrate fulfilment of the requirement. Appendix no. _____

Are the requirements met?

Yes No

O5 Permanent light sources

Permanent light fittings, both indoors and outdoors, must have light sources of energy class B or better. Reflector lamps (directional light sources) must be LED (light emitting diode) or some other energy-efficient directional light source.

Exterior lighting must be automatic if the total power requirement exceeds 30 watts.

Automatic and energy-efficient directional light source: See Glossary at the end of this document.

The energy classes are according to Commission Directive 98/11/EC for lamps.

- Specification of the types of light sources that are installed in the building. Appendix no. _____
- Overview of total energy requirement of installed exterior lighting. Appendix no. _____
- For automatic lighting: Specification of the type of automation. Appendix no. _____

- O6 Energy labelled white goods** Yes No
- If a refrigerator, freezer and/or washing machine is installed, this must be of energy class A+. Tumble dryers must be of energy class A or higher. If an oven or dishwasher is installed, this must be of energy class A or higher. White goods that are not covered by the European directive on energy labelling are exempt from this requirement.
Energy classes are defined in Commission Directives: 2003/66/EC for refrigerators and freezers. 95/12/EC for washing machines. 95/12/EC for washing machines. 2002/40/EC for ovens. 97/17/EC for dishwashers.
- Details of the number and type of white goods and associated energy labelling. Appendix no. _____
- O7 Low-flow showers and taps** Yes No
- All showers (or shower mixers) and basin mixer taps must have flow reducers that are fitted and activated when the building is conveyed to the customer.
Low-flow means max 12 l/min at a normal flow rate (forced flow is permitted).
- Specification of data for showers and mixer taps (flow tables or similar). Appendix no. _____
- O8 Individual measurement of energy** Yes No
- This requirement applies only to buildings with a common energy source for multiple units.
- A system for the individual measurement of:
- general electricity shall be installed in each dwelling unit.
 - hot water consumption and waterborne heating energy shall be installed in each dwelling unit if the supply of hot water and heating energy is common to several dwelling units.
- For extensions to existing buildings the requirements on individual measurement of energy shall be applied on the extension only.
- An exemption is made for heating energy supplied through a ventilation system where the system and heater are common to several dwelling units.
- An exemption is made for waterborne heating energy if at least 3 points are achieved in P1, 1 point will then be reduced from P1.
- An exemption is made for hot water consumption in extensions to existing buildings, where it is not technically feasible to install a system for individual measurement due to existing pipes. The qualification for the exemption is that one of the measurements described in P2 are installed and that an energy saving of 25% or more, based on the hot water consumption is achieved. 1 point will then be reduced from P2.
- Systems for heating consumption allocation must be approved to EN 834 (electricity meters), EN 835 (evaporation principle) or equivalent method.
- Systems for metering electricity and hot water must comply with Council Directive 2004/22/EC on measuring instruments or equivalent method.
- Description of the systems that are installed. Appendix no. _____

2.2 Indoor environment

Are the requirements met?

- O9 Ventilation** Yes No
- National guidelines for indoor and outdoor air quality must be met.
- Special requirements for pre-school buildings
 Pre-school buildings must have automatic demand-controlled ventilation. The type of demand control must be described.
Automatic demand control: See Glossary at the end of this document. Instructions regarding filter changes and possible operation agreements must be provided. See requirement O51.

- Procedures detailing how national regulations regarding indoor and outdoor air quality are fulfilled. Appendix no. _____
- For pre-school buildings, the type of demand control system must be described. Appendix no. _____
- P3 Noise (applies to small houses and apartments only)**
 One point is awarded to apartments and small houses that fulfil noise sound-transmission class B in accordance with national standards for sound transmission through walls and floors between housing units, such as between apartments or adjacent terraced houses.
 National standards for noise sound-transmission measurement: SS 25267 (Sweden), NS 8175(Norway), SFS 5907 (Finland), DS 490 (Denmark) and IST 45 (Iceland). Points achieved:
- Description of how the requirement is fulfilled in accordance with national standards. Appendix no. _____
- O10 Noise (applies to pre-school buildings only)**
 Common rooms and rest rooms must fulfil sound-transmission class B in accordance with national standards for sound transmission in Sweden, Norway and Finland. In Denmark and Iceland national regulations applies.
 National standards for sound-transmission measurement: SS 25268 (Sweden), NS 8175(Norway) and SFS 5907 (Finland). Are the requirements met? Yes No
- Description of how the requirement is fulfilled in accordance with national standards or national regulations. Appendix no. _____
- O11 Daylight factor (requirement applicable to pre-school buildings only)**
 The average daylight factor for play rooms and common rooms for children must exceed 4%.
 The minimum daylight factor for play rooms and common rooms must exceed 1%.
See Appendix 3 for methods of calculation. Manual calculations or computer simulations may be used. Yes No
- Calculations demonstrating the fulfilment of the requirement. Appendix no. _____
- O12 Illumination intensity (requirement applicable to pre-school buildings only)**
 The average light intensity from the combination of electrical lighting and daylight must exceed 200 lux at normal lighting levels.
 When required by special activities, the average light intensity at floor level in areas with common rooms and rest rooms must exceed 300 lux.
 In laundry rooms and nursery rooms, the average light intensity must exceed 300 lux.
 Lighting plans with calculations of illumination intensity must be submitted.
Computer software such as Dialux and Relux can be used.
- Lighting plan and calculations demonstrating the fulfilment of the requirement. Appendix no. _____
- P4 Demand-controlled lighting (requirement applicable to pre-school buildings only)**
 One point is awarded for the installation of automatic, demand-controlled lighting (e.g. daylight, movement or presence detectors) on more than 60% of light sources. Points achieved:
- Specification of the number of light sources, the percentage with demand control and the method of control. Appendix no. _____

3 Material requirements

Are the requirements met?

If an ecolabelled product (Nordic Ecolabel or EU Ecolabel) is used in an area specified under Section 3, the documentation requirement is lifted. I.e. ecolabelled products automatically fulfil all the requirements.

O13 List of products/materials

Yes No

Applicants shall submit a summary containing the following information on materials and product groups that are used in the construction of the house: Product name, product description (material or product group and primary raw material) and brand/producer. Ironmongery is not subject to this requirement.

Appendix 1 provides an example material list organised by product group/material.

List of materials and product groups as specified above. Appendix 1 can be used.

Appendix no. _____

Points achieved:

P5 Use of ecolabelled building products

Points are awarded for the use of ecolabelled (Nordic Ecolabel or EU Ecolabel) building products in the Nordic Ecolabelled building. One point is awarded for each product area within which a minimum of 10% of the product requirement is ecolabelled/recycled and two points for a minimum of 30%.

Appendix 2 provides examples of product areas.

A total of five points can be scored under P5.

List of ecolabelled products and licence numbers. Appendix 2 can be used.

Appendix no. _____

P

3.1 Chemical building products

Are the requirements met?

Chemical building products refers to liquid or non-cured chemical products that are used during manufacture or on the construction site. Products such as hydraulic fluids in works machines and cleaning agents are not classified as chemical building products. Examples of chemical building products include adhesives, caulk, fillers, indoor paints, oils, varnish, outdoor paints and outdoor varnishes.

Regarding classification in requirements O15 and O16 substances shall be classified according to Nordic regulations for the classification and marking of dangerous chemicals and/or the European substance and preparation directives, 67/548/EEC and 1999/45/EEC (with amendments).

If Annex XVII of REACH (Council Directive 1907/2006/EC)¹ sets more stringent requirements during the validity of the criteria, the Limitations Directive shall apply.

Table 1 in Appendix 4 can be used for translation to the CLP (Regulation (EC) No 1272/2008).

“Contains” under requirements O16, O17 and O18 refers to substances that are added by the producer or supplier and that can be found in the end product in levels greater than 100 ppm.

¹ Previously formulated in Commission Directive 76/769/EEC 2008/0033 (Limitations Directive).

O14 Material safety data sheetYes No

Material safety data sheets shall be made available for all chemical building products that are used.

The material safety data sheet shall comply with applicable legislation in the country of application, e.g. Annex II of REACH (Council Regulation 1907/2006/EC) for all chemical products.

Material safety data sheets shall be made available to Nordic Ecolabelling.

Appendix no. _____

O15 ClassificationYes No

Chemical building products must not be classified according to the following table.

Table 2 Overview of classifications with associated symbols and risk phrases that are prohibited from chemical building products

Hazard class	Symbols and risk phrases
Dangerous for the environment	N with R50, R50/53 or R51/53
Carcinogenic	T with R45 and/or R49, or Xn with R40
Mutagenic	T with R46 or Xn with R68
Toxic for reproduction	T with R60 and/or R61, or Xn with R62 and/or R63
Very toxic	T+ with R26, R27, R28 and/or R39
Toxic	T with R23, R24, R25, R39 and/or R48

Documentation in accordance with O14 and item "a" in Appendix 5 for chemical products duly completed.

Appendix no. _____

O16 CMR substances (category 1, 2 and 3)Yes No

Substances in chemical building products must not be classified according to the following table.

Table 3 Overview of classifications with associated symbols and risk phrases that are prohibited from substances in chemical building products

Hazard class	Symbols and risk phrases
Carcinogenic	T with R45 and/or R49, or Xn with R40
Mutagenic	T with R46 or Xn with R68
Toxic for reproduction	T with R60 and/or R61, or Xn with R62 and/or R63

An exception is made for paints, which may contain preservatives classified as R40 up to a level of 0.1% in indoor paints and 0.2% in outdoor paints.

Exceptions apply to organic tin compounds, which are regulated by O17.

Item "b" for chemical products in Appendix 5 duly completed.

Appendix no. _____

O17 Prohibited substancesYes No

Chemical building products must not contain the following substances:

- Halogenated paraffins - highly-chlorinated, short-chain (C10-C13) and medium-chain (C14-C17)
- Fluorinated propellants
- Perfluorinated and polyfluorinated alkyl substances (PFAS)
- Alkylphenolethoxylates (APEO) and alkylphenol derivatives (APD)
- Brominated flame retardants
- Phthalates in products excluding caulk
- Phthalates in caulk: DEHP, DBP, BBP, 711P, DIBP DIDP and DINP are prohibited

- Boron compounds
- Creosote
- Benzo(a)pyrene, benzo(b)pyrene
- Bisphenol A
- Antimony trioxide
- Heavy metals: lead, cadmium, arsenic, chromium (VI), mercury or their compounds
- Monoacrylamide
- Organic tin compounds (with the exceptions below)

An exception is made for the quantity of DBT and DOT organic tin compounds (TBT and TPT are prohibited) which are permitted to the specified limit values in the following three product types:

- 0.5% in SMP polymers such as MS polymers
- 0.2% in silicone products and PUR polymers with silanes replacing isocyanates
- 0.03% in PUR polymers containing isocyanates.

Item "e-r" in Appendix 5 duly completed.

Appendix no. _____

O18 Substances with long-term effects

Yes No

Substances that according to the ESIS list (see below) are considered to have long-term negative effects on the environment must not be found in chemical building products. Examples include substances that are persistent, liable to bioaccumulate and toxic (PBT) and very persistent and very bioaccumulating substances (vPvB).

Substances falling under PBT and vPvB classification, or that may decompose to such, are listed on the Candidate list. Website: http://echa.europa.eu/candidate-list-table?p_p_id=substancetypelist_WAR_substanceportlet&p_p_lifecycle=0&p_p_state=normal&p_p_mode=view&p_p_col_id=column-1&p_p_col_pos=2&p_p_col_count=3&substancetypelist_WAR_substanceportlet_delta=75&substancetypelist_WAR_substanceportlet_keywords=&substancetypelist_WAR_substanceportlet_advancedSearch=false&substancetypelist_WAR_substanceportlet_andOperator=true&substancetypelist_WAR_substanceportlet_orderByCol=inclusiondatecl&substancetypelist_WAR_substanceportlet_orderByType=desc&substancetypelist_WAR_substanceportlet_cur=1

Substances that are "deferred" or "under evaluation" are not considered to have PBT or vPvB properties.

Item "c" in Appendix 5 duly completed.

Appendix no. _____

O19 Nanoparticles

Yes No

Nanometals, nanocarbon compounds and/or nanofluorine compounds must not actively be added to the chemical building product unless there is sufficient documentation demonstrating that the substance's use does not constitute a health or environmental hazard.

Nanoparticles are defined as microscopic particles that are smaller than 100 nm in one or more dimensions. Nanometals, for example, include nanosilver, nanogold and nanocopper. Traces of such materials that have not been added to achieve a certain function in the product are exempt from this requirement.

Item "d" in Appendix 5 on the absence of nanoparticles duly completed. If nanoparticles are used, documentation must be submitted that demonstrates that their use will not cause environmental or health problems.

Appendix no. _____

O20 Handling

Yes No

Applicants must specify how chemical building products classified according to the table below shall be handled to avoid personal injury.

Table 3 Overview of classifications with associated symbols and risk phrases

Hazard class	Symbols and risk phrases
Sensitising	Xn with R42 or Xi with R43
Harmful	Xn with R20, R21, R22, R48 or R65
Causes burns	C with R34 and R35

- | | | |
|-------------------------------------|---|--------------------|
| <input checked="" type="checkbox"/> | Description of how chemicals are handled in a safe manner to prevent personal injury. | Appendix no. _____ |
| <input checked="" type="checkbox"/> | Description of the protective equipment that is suitable for handling. Specification of who is responsible for ensuring that the information regarding the handling of chemical building products on-site is correct. | Appendix no. _____ |

3.2 Chemical substances in permanent building products

Are the requirements met?

These requirements apply to permanent building products that are used during pre-fabrication or on site.

O21 Adverse chemical substances

Yes No

The requirement applies to the following product groups:

- Permanent sealing products (e.g. tanking membranes, wetroom panels, vapour barriers, wind barriers, radon barriers, tar roofing and roofing membranes).
- Impregnated timber
- Insulation
- Plastic products such as ducting (for electrical wiring); high tension cables; waste water pipes; piping for a central vacuuming system (if applicable); and interior floor, ceiling and wall coverings (does not apply to technical areas).

The following substances are prohibited*:

- Halogenated paraffins - highly-chlorinated, short-chain (C10-C13) and medium-chain (C14-C17)
- Fluorinated propellants
- Perfluorinated and polyfluorinated alkyl substances (PFAS)
- Alkylphenoxyethoxylates (APEO) and alkylphenol derivatives (APD)
- Brominated flame retardants
- Phthalates
- Boron compounds
- Creosote
- Benzo(a)pyrene, benzo(b)pyrene
- Bisphenol A
- Antimony trioxide
- Heavy metals: lead, cadmium, arsenic, chromium, mercury or their compounds
- Organic tin compounds
- Monoacrylamide

* "Contains" under requirements O16, O17 and O18 means substances that are added by the producer or supplier and that can be found in the end product in levels greater than 100 ppm.

- | | | |
|-------------------------------------|--|--------------------|
| <input checked="" type="checkbox"/> | Items "a" to "n" in Appendix 6 duly completed. | Appendix no. _____ |
|-------------------------------------|--|--------------------|

Points achieved:

P6 Chlorine-free plastic products

P

If chlorine-free plastic products are used for all products within the following product groups, one point is awarded per product group:

- Cable ducts (for electrical wiring in e.g. walls)
- Plastic piping for central vacuum system
- Mains cables (excluding lifts)
- Waste water pipes

A total of two points can be gained.

- | | | |
|-------------------------------------|---|--------------------|
| <input checked="" type="checkbox"/> | Declaration from the applicant and from the supplier of the plastic products. | Appendix no. _____ |
|-------------------------------------|---|--------------------|

O22 Nanoparticles in permanent building products and white goods

The building manufacturer must have a documented procedure describing how the company ensures that building products do not contain additives of nanometals, nanocarbon compounds and/or nanofluorine compounds if it cannot be demonstrated that the use of such does not cause environmental or health issues.

Documentation must exist demonstrating that nanometals, nanocarbon compounds and/or nanofluorine compounds are not added to the following products:

- Flooring (e.g. linoleum, floor tiles, parquet flooring and laminate flooring)
- Kitchen and bathroom fittings (worktops, etc.)
- White goods
- Windows
- Ventilation systems

Nanoparticles are defined as microscopic particles that are smaller than 100 nm in one or more dimensions. Nanometals, for example, include nanosilver, nanogold and nanocopper. Traces of such materials that have not been added to achieve a certain function in the product are exempt from this requirement.

- Declaration in Appendix 5 on the absence of nanoparticles duly completed. If nanoparticles are used, documentation must be submitted that demonstrates that their use will not cause environmental or health issues.
- A documented procedure describing how the company ensures that building products do not contain additives of nanomaterials if it cannot be demonstrated that the use of such will not cause environmental or health issues.

Are the requirements met?

Yes No

Appendix no. _____

Appendix no. _____

3.3 Timber and fibre-based materials

These requirements apply to wood fibre and bamboo. Other natural fibres may be included following approval from Nordic Ecolabelling.

Are the requirements met?

O23 Securing wood and bamboo raw materials from sustainable sources

This requirement applies to all wood and bamboo-based materials in the building, such as products made of solid wood/bamboo and glulam, veneer and fibre-based products.

Yes No

Wood and bamboo must not be derived from:

- Protected areas or areas that are treated by a policy with the objective of becoming protected.
- Areas where ownership or rights of exploitation are unclear.
- Illicitly felled trees and/or fibre raw material.
- Ancient virgin forest and forest of high value meriting protection.
- Genetically modified trees or plants.

The house manufacturer shall have a documented procedure describing how operations ensure that the wood or bamboo raw material is supplied from legal, sustainable sources.

Nordic Ecolabelling may revoke the license if it is found that wood and/or bamboo raw materials are derived from non-approved environments.

A Chain of Custody certificate may be used in the procedure to document the origin of the wood/bamboo raw material.

- A documented procedure that describes how the requirement is fulfilled. Appendix 8 may be used.

Appendix no. _____

O24 Controlled wood and bamboo

These requirements apply to parts made of solid, glulam or veneer wood and bamboo:

- Roof trusses
- Framework and joists
- Indoor panels
- Facades (including outdoor balcony, terrace and porch)
- Interior doors and fitments
- Door frames and thresholds
- Flooring (including skirting boards)
- Windows and exterior doors (including linings)

Yes No

The licence applicant must ensure that wood and bamboo raw materials in the products listed above are not derived from the areas described under O23. The name of the wood/bamboo and its geographic origin (country) shall be specified.

If a product comes from forest that is certified to an approved forestry standard and has been documented in O25, documentation according to this requirement is not necessary.

- The name of the type of wood/bamboo its geographic origin for the wooden and bamboo products listed above. Appendix 10 may be used.

Appendix no. _____

O25 Timber from certified forests

The requirement applies to the following parts of a building:

- Timber in the roof trusses.
- Timber in the framework and joists.
- Timber in interior panels and exterior facades (including balconies, terraces and porches).

Yes No

At least 50% of the raw material in solid wood, glulam and veneer products must be derived from areas with certified management following a national forestry standard that is approved by Nordic Ecolabelling.

Calculations may be based on either weight or volume. Applicants must specify the national forestry standard and certification system to which the forest area is certified. The requirements applying to forestry standards and certification systems are detailed in Appendix 9.

The licence applicant may of course include other building parts (such as flooring or building boards) in the calculation of certified timber.

Nordic Ecolabelled wood products are considered as wood from certified forests.

A Chain of Custody certificate is by itself insufficient. A certificate of sustainable forestry, for which the forestry standard and geographic area are approved by Nordic Ecolabel, must also be presented.

- The amount of timber derived from certified forest must be stated and the basis for calculations must be shown.

Appendix no. _____

Appendix 10 can be used by the supplier and 11 can be used for the summary.

Nordic Ecolabelling may request further documents to examine whether the requirements of the forestry standard and certification system in question can be approved. Such documentation can, for example, comprise copies of the certification body's final report, a copy of the forestry standard (including the name, address and phone number of the organisation that established the standard) as well as references to individuals representing parties and interest groups who have been involved in the standard.

P7 Higher proportion of timber from certified forests

If the amount of certified timber (as per O25) is more than 60% of the total amount of timber, one point is awarded.

Points achieved:

- Documentation as per O25.

Appendix no. _____

O26	Pressure impregnated timber	Are the requirements met?
	Pressure impregnated timber (Class M, A and AB according to Nordic Wood Preservation Council classification) may not, with certain exceptions, be used in Nordic Ecolabelled buildings. Exceptions are made for wood parts in contact with the ground or moisture sources and that require impregnation for safety reasons.	Yes <input type="checkbox"/> No <input type="checkbox"/>
	Pressure impregnated wood parts must fulfil requirement O21 Adverse chemical substances.	
	Nordic Ecolabelled durable timber fulfils the requirement and may be used.	
☒	Items "a" to "n" in Appendix 6 from the licence applicant and a specification of the possible need for pressure impregnated timber. Details of the safety reasons must be provided.	Appendix no. _____
O27	Formaldehyde emissions	Yes <input type="checkbox"/> No <input type="checkbox"/>
	This requirement applies to wood and bamboo based materials such as boards, flooring and furniture containing more than 3% by weight formaldehyde-based additives and that are used in the building itself (irrespective of location) or permanent interior fittings such as wardrobes and kitchens.	
	Up to 31 December 2013, the limit value specified in Appendix 12a applies. The requirement limit specified in Appendix 12b applies as of 1 January 2014.	
	Products with the Nordic Ecolabel fulfil the requirement. Analysis methods and requirements on test laboratories for formaldehyde can be found in Appendix 12c.	
☒	Documentation from the supplier of the wood-based board that verifies fulfilment of the requirement or the declaration in Appendix 13.	Appendix no. _____
3.4	Other requirements on building products, materials and interiors	Are the requirements met?
O28	Cladding and roofing	Yes <input type="checkbox"/> No <input type="checkbox"/>
	Cladding and roofing must not contain lead or more than 10% by weight solid copper.	
☒	Documentation demonstrating how the requirement is fulfilled.	Appendix no. _____
O29	Plastic surface layers for interior floors, walls and ceilings	Yes <input type="checkbox"/> No <input type="checkbox"/>
	Chlorinated plastics may not be used for interior flooring, wall coverings (technical areas exempt) or ceilings.	
☒	Documentation demonstrating how the requirement is fulfilled.	Appendix no. _____
O30	Windows and exterior doors	Yes <input type="checkbox"/> No <input type="checkbox"/>
	Components of a window or exterior door such as the frame, casements or door leaf that are made of polymers must comprise at least 30% by weight recycled polymers.	
	This requirement does not apply to parts that constitute less than 3% by weight of the total product.	
	<i>Recycled material is defined as post-consumer recycled material and waste from other manufacturing such as plastic production.</i>	
☒	Non-renewable polymer materials: specify the proportion of recycled materials used. Declaration from the supplier that the material is recycled.	Appendix no. _____

- O31 Low-flush toilets** Yes No
 All toilets (WCs) installed must be low-flush toilets with two flush modes for max. 3 and 6 litres.
- Technical data sheet for the toilets. Appendix no. _____
- O32 Containers for sorting household waste** Yes No
 Containers for sorting household waste (at least 3 fractions) must be installed in the kitchen.
- Documentation of the sorting containers. Appendix no. _____
- O33 Waste and recycling stations for apartment buildings, terraced houses and pre-school buildings** Yes No
 Pre-school buildings and buildings with more than eight dwelling units must have space designated for a close-by waste and recycling station for at least six fractions to enable the sorting of for example:
- Paper
 - Hazardous waste
 - Glass
 - Metal
 - Electronic waste
 - Unsorted waste
 - Cardboard
 - Compostable waste
- Description of the waste and recycling station. Appendix no. _____

4 Quality management and control of the construction process

4.1 Requirements on the construction process

Are the requirements met?

These requirements apply to both prefabrication, construction on site and subcontractors.

If regulatory requirements generate documentation that fulfils Nordic Ecolabel documentation requirements, the applicant may submit such documentation.

- O34 Radon** Yes No
 Measures must be taken during construction to ensure that the radon level adheres to national limits or requirements.
- Documentation demonstrating how the requirement is fulfilled. Appendix no. _____
- O35 Material requirements** Yes No
 The building manufacturer must be able to ensure that the material requirements in Section 3 are observed. If the licence applicant engages subcontractors for the entire or part of the construction project, it must be documented that the subcontractor is acquainted with and observes the material requirements.
- The material and chemical products that are used in the building must also be controlled, e.g. through agreements or inspections.*
- Procedures or agreement demonstrating how the material requirements in Section 3 are fulfilled for the entire construction process. If subcontractors are engaged, the subcontractor's procedures or agreement for this must also be submitted. Appendix no. _____

O36 Management of building waste

Yes No

There must be a waste management plan and procedures for waste management during the construction process that fulfil national and local regulations. This obligation may also be fulfilled by a third-party agreement. If the licence applicant engages subcontractors for the entire or part of the construction project, it must be documented that the subcontractor also observes these regulations.

- Waste management plan and procedures or agreement. If subcontractors are engaged, the agreement with the subcontractor or separate waste management plans and procedures must also be submitted.

Appendix no. _____

Points achieved:

P

P8 Measurement of waste fractions

One point is awarded if at least three waste fractions (including unsorted waste) from the building site are measured and documented. Two points are awarded if at least five waste fractions (including unsorted waste) from the building site are measured and documented.

Waste from demolition and land work is not included.

- Documentation demonstrating how the requirement is fulfilled.

Appendix no. _____

Are the requirements met?

Yes No

O37 Protection from damp

Materials that are susceptible to damp must fulfil national recommendations for low moisture content to avoid problems related to damp in the finished building. The licence applicant must describe the provisions taken. The handling and storage of materials on the building site must be considered.

If the building has solid slab raft foundations (concrete), procedures must ensure that the moisture content of the slab does not cause damp problems for the above material.

If subcontractors are engaged for work that may affect the damp-proofing, the licence applicant must either ensure that such subcontractors follow the licence applicant's procedures or have their own procedures preventing damp issues.

Moisture measurement is one method that can be used to ensure that the damp-proofing is sufficient. Calculations can also be used to determine the moisture content of the concrete. Reference to proven, problem-free solutions may be acceptable if these can be verified by an independent third party.

- Procedures demonstrating how the requirement is fulfilled. If subcontractors are engaged for work that may affect the damp-proofing, their procedures must also be submitted.

Appendix no. _____

- Description of the method of checking the moisture level of the concrete slab. Documentation demonstrating that a possible third party is independent and competent to assess whether a solution is proven.

Appendix no. _____

O38 Approved water installations

Yes No

The licence applicant must describe how it is ensured that water installations and wetrooms are fitted according to national trade regulations and their method of self-inspection and documentation.

Reference can be made to:

Sweden

- Trade standards for water installations compiled by the Swedish accreditation body for water, waste and sanitation (VVS Auktorisation).
- Byggheravärdets BBV, construction chemical council's trade regulations for wetrooms, and Golvbranschens våtrumskontroll GVK, floor trade standards for tanking for walls and floors.

Norway

Wetroom standards or technical approval.

Denmark

Building Regulations 2008, Chapter 8.4 and Chapter 4.6

Finland

Building regulations and D1 for water and waste installations

- Description of how the requirement is fulfilled and self-inspection procedures.

Appendix no. _____

O39 Inspection during construction

Yes No

There must be one or several quality inspectors to ensure that quality management and assurance procedures are followed. The quality inspector(s) shall also ensure that the necessary inspection plans are drawn up and inspections are carried out. A quality inspector may be internal or external but must be certified or in some other credible way be able to demonstrate the necessary expertise.

The inspection plan for the Nordic Ecolabelled house shall cover requirements O34, O35, O36, O37 and O38. The inspection plan must also cover all other pertinent aspects (such as electrical installations, ventilation and heating systems) to ensure that Nordic Ecolabelling criteria and regulatory requirements are fulfilled during the construction process.

The building manufacturer must have implemented a quality system that assures quality as specified above.

The inspection plan for the Nordic Ecolabelled building must be presented on request.

If the licence applicant is not also the building manufacturer, there must be a contract between the licence applicant and the house manufacturer and the required documentation drawn up.

- Description of the building manufacturer's quality system, how the quality inspector(s) is (are) appointed, a copy of the inspection plan, procedures for agreements with subcontractors regarding work carried out, etc. If suitable, examples of previous building projects that have employed the quality management system may be submitted.

Appendix no. _____

O40 Inspection of the finished building

Yes No

When the house is completed, the site's quality inspector(s) shall perform an initial inspection to identify and rectify as many faults as possible ahead of the final inspection. If any defects are found at the final inspection, a correction plan must be drawn up and the defects corrected in agreement with the buyer.

- Procedures demonstrating the fulfilment of the requirement.

Appendix no. _____

O41 Quality control

Yes No

This requirement applies to the first Nordic Ecolabelled building and a subsequent 5% of the building stock.

The following points shall be checked in the finished building:

- General condition of the building and an assessment of the construction quality.
- Evident building flaws.
- Inspection plans, as detailed by O39, are fulfilled.

See Appendix 15 for example check points.

The inspection shall be performed by an independent third party holding the requisite expertise. The licence applicant must have procedures to handle and correct possible faults and defects that are detected during this inspection.

- Agreement with the inspector and documentation affirming that the inspector is an independent party with the relevant qualifications. The inspector's report shall be submitted to Nordic Ecolabelling.

Appendix no. _____

Nordic Ecolabelling may revoke a licence if it becomes apparent that the quality requirements cannot be upheld.

4.2 Points score

Are the requirements met?

Yes No

O42 Scores

The licence applicant must gain at least 40% (9 of 22) of the maximum available points to be eligible for a Nordic Ecolabel licence.

Use Table 4 to calculate the points score. Fill in the points awarded under each requirement to see whether the building meets the set standard.

Table 4 Overview of available points

P no.	Parameter	Applicant's score	Max. score Small houses	Max. score Apartments	Max. score Pre-school
P1	Reduced energy consumption		10	10	10
P2	Energy from local energy source or energy recovery		1	1	1
P3	Noise (applies to houses and apartments only)		1	1	0
P4	Demand-controlled lighting (requirement applicable to pre-schools only)		0	0	1
P5	Use of ecolabelled building products		5	5	5
P6	Chlorine-free plastic products		2	2	2
P7	Higher proportion of timber from certified forests		1	1	1
P8	Measurement of waste fractions		2	2	2
	Total		22	22	22

Calculation showing the achieved score.

Appendix no. _____

4.3 Quality management

Are the requirements met?

Yes No

There must be a documented quality management system implementing the following procedures in order to ensure that Nordic Ecolabel requirements are fulfilled:

O43 Information to parties involved in the construction process

Employees, including foremen and subcontractors, who are involved in the construction process must be fully briefed to ensure that the requirements in the Nordic Ecolabel licence are fulfilled. Briefing shall take place prior to the start of construction on the Nordic Ecolabelled building.

Quality management system procedure.

O44 Laws and regulations

The building manufacturer must ensure that all regulations concerning working conditions, environmental legislation and other appropriate conditions are followed in all production areas for the Nordic Ecolabelled building.

Yes No

Signed application.

Appendix no. _____

- O45 Organisation and responsibility** Yes No
 There must be an organizational chart for the section of the business involved in the construction of Nordic Ecolabelled buildings. This shall include contacts for Nordic Ecolabelling, the construction process, building quality, marketing and training.
 📖 Quality management system procedure.
- O46 Changes and nonconformities** Yes No
 Planned changes affecting Nordic Ecolabel requirements must be reported to and approved by Nordic Ecolabelling. New materials that are introduced following the issue of a licence must be approved if they are subject to the requirements of Section 3 (see O35.). Unforeseen nonconformities that have a bearing on Nordic Ecolabel requirements must be reported to Nordic Ecolabelling. If subcontractors are engaged for the entire or part of the construction project, it must be documented that these understand the Nordic Ecolabelling requirements regarding changes and nonconformities and that they have been informed as to which materials may be used.
 📖 Quality management system procedure.
- O47 Complaints** Yes No
 There must be procedures in place for documenting, reporting and dealing with claims and complaints regarding Nordic Ecolabelled buildings. It must be made clear that the licence applicant is responsible to the customer and that the customer shall turn to the licence applicant in case of complaints and claims.
 📖 Quality management system procedure.
- O48 Documentation of completed buildings** Yes No
 The licence applicant shall keep a list of completed Nordic Ecolabelled buildings and documentation of how the airtightness requirement in Section 2 (2.1), the material requirements in Sections 3 and the requirements on the construction process in Section 4.1 have been observed. The licensee must keep the documentation for at least five years following conveyance.
 Each year, the licensee shall submit a summary with addresses and property unit designations of its constructed Nordic Ecolabelled buildings.
 📖 Quality management system procedure.
- O49 Application documentation** Yes No
 The licence applicant must keep a copy of the application complete with all factual and calculation data supporting the documents submitted on application (including test reports, documents from suppliers and suchlike). The material list with the materials subject to Section 3 must be updated continually as new materials are approved. See O46. This requirement applies to the entire period of validity of the licence.
 📍 Requirement checked at the licence applicant's premises.
- O50 Marketing** Yes No
 The marketing of Nordic Ecolabelled buildings must follow regulations in the "Marketing" section (page 30).
 📧 Appendix 14 and examples of marketing material for the Nordic Ecolabelled building. Appendix no. _____

5 Instructions to residents/property managers

Are the requirements met?

O51 General information and maintenance plan

Yes No

The purchaser must be furnished with general information and a maintenance plan for the building so that the purchaser is aware of maintenance needs and which actions are most suitable from an environmental perspective.

The general information and maintenance plan shall contain information on how regularly parts require maintenance and whether special products need to be used. If special products are recommended, these must be ecolabelled with the Nordic Ecolabel or European Eco-label or fulfil the material requirements of Section 3.

It must also be stated whether external qualified (certified) services are required, or whether a layman can carry out the maintenance.

The general information and maintenance plan must contain the following sections:

- Heating, water and sanitation installations: A clear and easy to understand manual for the heating and ventilation system must be provided. This shall describe how the system can be set to achieve the best possible energy efficiency and indoor environment. The manual shall also include service intervals, such as for filter changes.
- Façade including exterior wooden structures such as porch and railings: Surface treatment.
- Windows, including sun screens.
- Roofing and cleaning guttering: Frost attrition and surface treatment.
- Electrical installations: Maintenance and inspection.
- Flooring: Surface treatment.
- A description of how the building is protected against radon. The plan shall also include instructions as to what residents/property managers can do to ensure a low concentration of radon in the building, and information on the possibility to measure radon levels following conveyance.
- Other equipment included in the contract (e.g. white goods).
- Recommendations to use energy efficient light sources/lights to save energy.
- A service booklet, that makes reference to the maintenance plan, must also be provided.

☒ General information, maintenance plan and list of possible service books.

Appendix no. _____

Glossary

Term	Explanation or definition
A_{om}	A_{om} is the total area in m ² of building component surfaces enclosing heated indoor air. Such building components form the boundary of heated parts of the building to free air, ground or partially heated spaces. Regarding apartments and terraced houses, conjoining walls, ceilings and floors can in practice be included since calculations are commonly performed on individual dwelling units.
Automatic demand-controlled lighting	Lighting that is controlled automatically based on daylight intensity. This includes a wide range of controls from timers to daylight sensors and presence detectors, or a combination of these.
Automatic demand-controlled ventilation	Ventilation that is controlled automatically based on air quality. This includes a wide range of control devices from time controls to CO ₂ and presence detectors.
Dwelling unit	One of several apartments in a apartment building, or one of several houses, for example one of several terraced houses.
Energy-efficient directional light source	All directional light sources that are more energy efficient than standard halogen reflector bulbs. This includes IRC and ES (energy saving) technologies. Light sources that produce a higher lighting effect per watt.
Heat exchanger	Used to transfer heat energy from one medium to another without mixing the two. Media include water and air but also other fluids.
LED	Light Emitting Diode.
Material safety data sheet, MSDS	A material safety data sheet describes the chemical composition and properties of a product in 16 standard points. Chemical products that are hazardous to health or the environment, or that contain substances that are such are subject to regulations regarding MSDS.
Nanoparticles	Nanoparticles are defined as microscopic particles that are smaller than 100 nm in one or more dimensions. Nanometals, for example, include nanosilver, nanogold and nanocopper.
Phthalates	Phthalates are a group of chemicals primarily used as plasticizers in plastics. The following phthalates are listed under O17: DEHP (di(2-ethylhexyl) phthalate), DBP (dibutyl phthalate), BBP (butyl benzyl phthalate), 711P (1,2 benzene dicarboxylic acid, di-C7-11-branched and linear alkyl esters), DIBP (diisobutyl phthalate), DIDP (diisodecyl phthalate) and DINP (diisononyl phthalate)
Start of construction	Start of construction commences when the basement floor or slab foundation has been cast.
Thermal bridge	A design detail in a building where a poor insulator punctuates a good insulator, such as a concrete girder supporting a balcony that penetrates the insulating wall.

Marketing

The Nordic Ecolabel must be used in such a way that there is no doubt as to what the label refers and so that it is clear that the building holds the Nordic Ecolabel at the time of sale. It must be clearly stated that non-heated annexes such as a garage, carport, shed or similar are subject to Nordic Ecolabelling's material requirements if they are marketed together with the Nordic Ecolabelled building.

Extensions to existing buildings can hold the Nordic Ecolabel without the existing building being Ecolabelled. To avoid misunderstandings, specific marketing regulations must be obeyed.

The licensee may provide the purchaser of the building with a certificate as proof of the building being Nordic Ecolabelled at the time of purchase. The certificate shall include the date of sale, version number with which the building complies and the licensee's licence number.

More information on marketing can be found in "Regulations for the Nordic Ecolabelling of products" dated 22 June 2011 or later versions.

Design of the Nordic Ecolabel

Design of the Nordic Ecolabel:



Each licence has a unique, six-digit licence number that must be displayed along with the label.

More information on the design of the label can be found in "Regulations for the Nordic Ecolabelling of products" dated 22 June 2011 or later versions.

Sales in other Nordic countries

Registering a licence in another Nordic country allows the Nordic Ecolabel to be used on a larger market. The following must be submitted to Nordic Ecolabelling:

- Form for sales in other Nordic countries.
- Instructions for residents.

- Documentation demonstrating the fulfilment of national regulations.
- Documentation demonstrating the fulfilment of O3, O4, P3, P5, O9, O10, O34, O36, O37 and O39 in the country in question.

Registration is free of charge but an annual fee shall be paid in accordance with the national regulations.

How long is a licence valid?

Nordic Ecolabelling adopted version 2.0 of the criteria following referral on 15 December 2009. These criteria are valid until 31 December 2014.

At the Nordic Ecolabelling Board meeting on 16 March 2010 it was decided to change the requirement O28. On 19 May 2010 the secretariat managers meeting was orientated about an adjustment in the requirement for noise, P3 and O10. These changes have resulted in criteria version 2.1.

The Secretariat Manager's meeting decided on 11 May 2011 to make an exemption in O8. The exemption applies to individual measurement of waterborne heating energy for energy-efficient apartment buildings. The new version is called 2.2.

The Secretariat Manager's meeting decided on 16 February 2012 on a change in O27 Formaldehyde emissions. The new version is called 2.3.

The Secretariat Manager's meeting decided on 12 September 2012 to extend the product definition on what can be Nordic Ecolabelled to include extensions to existing buildings. The new version is called 2.4.

The Secretariat Manager's meeting decided on 15 November 2012 to postpone the date for sharper formaldehyde emissions requirement (O27) with 12 months. The new version is called 2.5.

The Secretariat Manager's meeting decided on 15 May 2013 to prolong the criteria with one year. The new version is called 2.6 and is valid until 31 December 2015.

The Secretariat Manager's meeting decided on 19 June 2013 to make an exemption in O8 for hot water consumption in extensions to existing buildings. The new version is called 2.7.

The ecolabel licence is valid providing the criteria are fulfilled and until the criteria expire. The validity of the criteria may be extended or adjusted. In such a case, the licence will be automatically extended and the licensee notified.

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.

Appendix 1 List of materials

List of products and materials. Use appropriate units of quantity. Table B1.1 gives examples of products that should be included.

Table B1.1 Suggested list of products and materials

Product name	Product description	Producer	Documentation	Quantity
Interior coatings, oil and varnish	Product description	Producer	Data sheet + Appendix 5	
Exterior coatings	Product description	Producer	Data sheet + Appendix 5	
Adhesive	Product description	Producer	Data sheet + Appendix 5	
Filler, caulk and sealants	Product description	Producer	Data sheet + Appendix 5	
Other chemical building products	Product description	Producer	Data sheet + Appendix 5	
Permanent sealants	Product description	Producer	Appendix 6	
Insulation	Product description	Producer	Appendix 6	
Plastic products subject to O22	Product description	Producer	Appendix 6	
Flooring	Product description	Producer	Appendix 6 + Appendix 7	
Impregnated wood (pressure impregnated timber limited by O26)	Product description	Producer	Appendix 6 (Pressure impregnated timber: explanation of need) + Forest certification: Appendix 10	

Product name	Product description	Producer	Documentation	Quantity
Wood-based board incl. kitchen and bathroom fittings	Product description	Producer	Forest certification: Appendix 10 + Appendix 13 or similar Kitchen and bathroom fittings: Appendix 7	
Wood in products specified in O23 and O24	Product description	Producer	Forest certification: Appendix 8 + Appendix 10	
Cladding and roofing	Product description	Producer		
Windows	Product description	Producer	Appendix 7 + Forest certification: Appendix 10. Doc. for observance of O30	
White goods	Product description	Producer	Energy label class + Appendix 7	
Heating, water and sanitation installations	Product description	Producer	Flow l/s + Toilets: litre/flush	
Ventilation system	Product description	Producer	Appendix 7	

Appendix 2 Points scored for the use of ecolabelled products

Table B2.1 Point score calculation

Type of product	Trade name	License number	Area of use	Share of need (%)	Score
Building boards					
Windows					
Flooring					
Furniture/fittings (including kitchen cabinets, wardrobes and bathroom fittings)					
White goods					
Paint, varnish					
Chemical building products					
Durable timber					
Closed biofuel fireplaces/Solid biofuel boilers					
Heat pumps					

Appendix 3 Calculation of daylight factor (applicable to pre-school buildings only)

Given below is an empirical formula, developed by P. J. Littlefair (1991) in Great Britain, for calculating the average daylight factor in rooms with vertical windows:

$$DF = \frac{LT \cdot \theta \cdot A_{lys}}{A_{tot} \cdot (1 - R^2)}$$

Where:

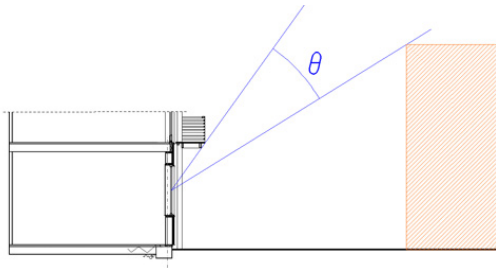
LT Diffuse light transmittance of the glazing material including correction for possible thin curtains. For clear double glazing a value of 0.7 can be used.

θ Vertical angle of the sky as seen from the centre of each window in degrees ($^{\circ}$).

A_{lys} Area of window (m^2).

A_{tot} Total area of all surfaces in the room, including windows (m^2).

R Area weighted average reflectance of all surfaces in the room. For a room painted in a light shade, a value of 0.5 can be used.



The figure above shows the vertical angle θ of sky visible from the centre of the window.

There is unfortunately no simple formula for calculating a minimum value of the daylight factor. Accordingly, the following computer programs can be used. They are listed in descending order of accuracy and ease of use (i.e. best first):

RADIANCE RELUX

SUPERLITE

LESO-DIAL,

A formula for calculating the daylight factor of rooms with skylights can be found in “Dagslys i bygninger” Lyskultur, 1998, page 35 (“Daylight in buildings”, The Norwegian Lighting Institute, article in Norwegian).

Appendix 4 Translation key - CLP (Regulation (EC) No 1272/2008)

The classification in requirements O15, O16 and O21 follows substance directive 67/548/EEC (with amendments to REACH following directive 2006/121/EC) and the preparations directive 1999/45/EC. All directives apply with subsequent amendments. Regulation (EC) No 1272/2008 on the classification, labelling and packaging of chemical substances and mixtures (CLP Regulation) came into force in the EU on 20 January 2009. For the transition to CLP, the classification of products and substances can be translated using the following table.

Note that the producer of chemical products and constituent substances is responsible for classification.

Table B4.1 Translation of O15 to CLP

Classification	Hazard class and risk phrases as per Council Directive 1999/45/EC	CLP
Dangerous for the environment	N with R50, R50/53 or R51/53	Ecotoxicity Acute Category 1, H400 Ecotoxicity Chronic Category 1, H410 Ecotoxicity Chronic Category 2, H411
Carcinogenic	T with R45 and/or R49, or Xn with R40	Carcinogenicity Category 1A, H350 Carcinogenicity Category 1B, H350 Carcinogenicity Category 2, H351
Mutagenic	T with R46 or Xn with R68	Germ Cell Mutagenicity Category 1A, H340 Germ Cell Mutagenicity Category 1B, H340 Germ Cell Mutagenicity Category 2, H341
Toxic for reproduction	T with R60 or R61; Xn with R62 or R63	Reproductive Toxicity Category 1A, H360 Reproductive Toxicity Category 1B, H360 Reproductive Toxicity Category 2, H361
Very toxic	T+ with R26, R27, R28 or R39	Acute Toxicity Category 1 H330 Acute Toxicity Category 2, H330 Acute Toxicity Category 1, H310 Acute Toxicity Category 2, H310 Acute Toxicity Category 1, H300 Acute Toxicity Category 2, H300 Specific Target Organ Toxicity after Single Exposure Category 1, H370
Toxic	T with R23, R24, R25, R39 or R48	Acute Toxicity Category 3, H331 Acute Toxicity Category 3, H311 Acute Toxicity Category 3, H301 Specific Target Organ Toxicity after Single Exposure Category 1, H371 Specific Target Organ Toxicity after Repeated Exposure Category 1, H372

Table B4.2: Translation of O16 to CLP

Classification	Hazard class and risk phrases as per Council Directive 67/548/EEC	CLP
Carcinogenic	T with R45 and/or R49, or Xn with R40	Carcinogenicity Category 1A, H350 Carcinogenicity Category 1B, H350 Carcinogenicity Category 2, H351
Mutagenic	T with R46 or Xn with R68	Germ Cell Mutagenicity Category 1A, H340 Germ Cell Mutagenicity Category 1B, H340 Germ Cell Mutagenicity Category 2, H341
Toxic for reproduction	T with R60 or R61; Xn with R62 or R63	Reproductive Toxicity Category 1A, H360 Reproductive Toxicity Category 1B, H360 Reproductive Toxicity Category 2, H361

Table B4.3 Translation of O21 to CLP

Classification	Hazard class and risk phrases as per Council Directive 1999/45/EC	CLP
Sensitising	Xn with R42 or Xi with R43	Respiratory Sensitisation Category 1, H334 Skin Sensitisation Category 1, H317
Harmful	Xn with R20, R21, R22, R48, R65 or R68	Acute Toxicity Category 4, H332 Acute Toxicity Category 4, H312 Acute Toxicity Category 4, H302 Specific Target Organ Toxicity after Repeated Exposure Category 2, H373 Specific Target Organ Toxicity after Single Exposure Category 3, H335 Aspiration Hazard Category 1, H304
Causes burns	C with R34 and R35	Skin Corrosion/irritation, category 1B and 1C Skin Corrosion/irritation, category 2

Appendix 5 Declaration regarding chemical building products

(Wood preservatives, paint, adhesive, sealants, putty, etc.)

Name of the product:
Manufacturer/supplier:

Table B5.1:

Wood preservative <input type="checkbox"/>	Caulk <input type="checkbox"/>
Undercoat <input type="checkbox"/>	Adhesive <input type="checkbox"/>
Topcoat <input type="checkbox"/>	Filler <input type="checkbox"/>
Other <input type="checkbox"/>	Please specify:

- a. Is the product classified with one of the following risk phrases according to the Council Directive 67/548/EEC on substances or Council Directive 1999/45/EG on preparations (with amendments)? Yes No
 Dangerous for the environment (N with R50, F50/53 or R51/53); Carcinogenic (T with R454 and/or R49, or Xn with R40); Mutagenic (T with R46, or Xn with R68); Toxic for reproduction (T with R60 and/or R61, or Xn with R62 and/or R63); Very toxic (T+ with R26, R27, R28 and/or R39); Toxic (T with R23, R24, R25, R39 and/or R48).

Does the product contain* the following substances?

- b. CMR substances Yes No
Carcinogenic (Carc with R40, R45 and/or R49) Yes No
Mutagenic (Mut with R46 and/or R68) Yes No
Toxic for reproduction (Rep with R60, R61, R62 and/or R63) Yes No
- c. PBT or vPvB substances Yes No
(persistent, bioaccumulating and toxic organic/very persistent and very bioaccumulating)
- d. Nanometals, nanocarbon compounds and/or nanofluorine compounds** Yes No
- e. Halogenated paraffins Yes No
Highly-chlorinated, medium-chain (C14-C17) or short-chain (C10-C13)
- f. Fluorinated propellants Yes No
- g. Perfluorinated or polyfluorinated alkylated substances (PFAS) Yes No
- h. Alkylphenoethoxylates (APEO) or alkylphenol derivatives (APD) Yes No
- i. Brominated flame retardants Yes No
- j. Phthalates Yes No
 If Yes, please state which phthalates the product contains: _____

- k. Boron compounds Yes No

(continued on next leaf →)

* "Contains" refers to substances that are added by the producer or supplier and that can be found in the end product in levels greater than 100 ppm.

** Nanoparticles are defined as microscopic particles that are smaller than 100 nm in one or more dimensions. Nanometals, for example, include nanosilver, nanogold and nanocopper.

(← Continued from previous page)

- | | | | | | |
|----|---|-----|--------------------------|----|--------------------------|
| l. | Creosote | Yes | <input type="checkbox"/> | No | <input type="checkbox"/> |
| m. | Benzo(a)pyrene or benzo(b)pyrene | Yes | <input type="checkbox"/> | No | <input type="checkbox"/> |
| n. | Bisphenol A | Yes | <input type="checkbox"/> | No | <input type="checkbox"/> |
| o. | Antimony trioxide | Yes | <input type="checkbox"/> | No | <input type="checkbox"/> |
| p. | Heavy metals: lead, cadmium, arsenic, chromium (VI), mercury or their compounds | Yes | <input type="checkbox"/> | No | <input type="checkbox"/> |
| q. | Monoacrylamide | Yes | <input type="checkbox"/> | No | <input type="checkbox"/> |
| r. | Organic tin compounds (with the exceptions below)*** | Yes | <input type="checkbox"/> | No | <input type="checkbox"/> |

0.5% in SMP polymers such as MS polymers

0.2% in silicone products and PUR polymers with silanes replacing isocyanates.

0.03% in PUR polymers containing isocyanates.

Type of product _____

Concentration of organic tin compounds _____ %

Manufacturer's/supplier's signature:

Date	Company name
Administrated by, signature	Telephone
Clarification of signature	E-mail

Appendix 6 Declaration on adverse chemical substances in permanent building products

Building products such as tanking, impregnated timber, insulating material and plastics.

Name of the product:
Manufacturer/supplier:

Table B6.1: Product:

Permanent sealant <input type="checkbox"/>	Plastic product <input type="checkbox"/>
Impregnated timber <input type="checkbox"/>	Other <input type="checkbox"/>
Insulation <input type="checkbox"/>	Please specify:

Does the product contain* the following substances?

- | | | | |
|----|---|------------------------------|-----------------------------|
| a. | Halogenated paraffins
<i>Highly-chlorinated, medium-chain (C14-C17) or short-chain (C10-C13)</i> | Yes <input type="checkbox"/> | No <input type="checkbox"/> |
| b. | Fluorinated propellants | Yes <input type="checkbox"/> | No <input type="checkbox"/> |
| c. | Perfluorinated or polyfluorinated alkylated substances (PFAS) | Yes <input type="checkbox"/> | No <input type="checkbox"/> |
| d. | Alkylphenoethoxylates (APEO) or alkylphenol derivatives (APD) | Yes <input type="checkbox"/> | No <input type="checkbox"/> |
| e. | Brominated flame retardants | Yes <input type="checkbox"/> | No <input type="checkbox"/> |
| f. | Phthalates | Yes <input type="checkbox"/> | No <input type="checkbox"/> |
| g. | Boron compounds | Yes <input type="checkbox"/> | No <input type="checkbox"/> |
| h. | Creosote | Yes <input type="checkbox"/> | No <input type="checkbox"/> |
| i. | Benzo(a)pyrene or benzo(b)pyrene | Yes <input type="checkbox"/> | No <input type="checkbox"/> |
| j. | Bisphenol A | Yes <input type="checkbox"/> | No <input type="checkbox"/> |
| k. | Antimony trioxide | Yes <input type="checkbox"/> | No <input type="checkbox"/> |
| l. | Heavy metals: lead, cadmium, arsenic, chromium mercury and their compounds | Yes <input type="checkbox"/> | No <input type="checkbox"/> |
| m. | Organic tin compounds | Yes <input type="checkbox"/> | No <input type="checkbox"/> |
| n. | Monoacrylamide | Yes <input type="checkbox"/> | No <input type="checkbox"/> |

* "Contains" refers to substances that are added by the producer or supplier and that can be found in the end product in levels greater than 100 ppm.

Manufacturer's/supplier's signature:

Date	Company name
Administrated by, signature	Telephone
Clarification of signature	E-mail

Appendix 7 Declaration on nanoparticles in permanent building products

This declaration concerns buildings products such as flooring, kitchen and bathroom fittings, white goods, windows and ventilations systems.

Name of the product:
Manufacturer/supplier:

Table B7.1 Product type

Flooring <input type="checkbox"/>	Ventilation system <input type="checkbox"/>
Kitchen fittings <input type="checkbox"/>	White goods <input type="checkbox"/>
Bathroom fittings <input type="checkbox"/>	Type of white good:
Windows <input type="checkbox"/>	

Does the product contain* nanoparticles? Yes No

Does the product contain any of the following?

- | | | |
|---------------------------|------------------------------|-----------------------------|
| a) Nanometals | Yes <input type="checkbox"/> | No <input type="checkbox"/> |
| b) Nanocarbon compounds | Yes <input type="checkbox"/> | No <input type="checkbox"/> |
| c) Nanofluorine compounds | Yes <input type="checkbox"/> | No <input type="checkbox"/> |
| d) Other nanoparticles | Yes <input type="checkbox"/> | No <input type="checkbox"/> |

If the answer to d) is yes, which nanoparticle(s) does it contain and what is its/their function? Complete Table B7.2.

Table B7.2 List of other nanoparticles

Nanoparticle	Function

** Nanoparticles are defined as microscopic particles that are smaller than 100 nm in one or more dimensions. Nanometals, for example, include nanosilver, nanogold and nanocopper. Traces of such materials that have not been added to achieve a certain function in the product are exempt from this requirement.*

We hereby declare that the products specified above do not contain nanometals, nanocarbon compounds and/or nanofluorine compounds. Further, we declare that the use of any other possible nanoparticles will not cause environmental or health issues.

Manufacturer's/supplier's signature:

Date	Company name
Administrated by, signature	Telephone
Clarification of signature	E-mail

Appendix 8 Declaration on procedures for securing wood and bamboo raw materials

Licensee/building manufacturer

The building manufacturer shall describe how requirement O23 is fulfilled.
Procedures or agreements with suppliers can be submitted.

Description:

.....

.....

.....

.....

.....

.....

Signature of licensee/building manufacturer

Date	Company name
Administrated by, signature	Telephone
Clarification of signature	E-mail

Appendix 9 Nordic Ecolabelling requirements on forest certification

Wood used in the product must be certified by a third party to comply with an applicable forest standard that fulfils the requirements on standards and certification systems. The following requirements apply to standards and certification systems that are approved by Nordic Ecolabelling.

Standards

The standard must balance economic, ecological and social interests and comply with the Rio Declaration's forestry principles, Agenda 21 and the Forest Principles, and respect relevant international conventions and agreements.

The standard must contain absolute requirements. It must promote and be directed towards sustainable forestry.

The standard must be generally available. The standard must have been developed in an open process in which stakeholders with ecological, economic and social interests have been invited to participate.

Certification system

The certification system must be transparent, have broad national and international credibility and be capable of verifying that the requirements of the forestry standard (see above) have been met.

Certification body

The certification body must be independent, credible and capable of verifying that the requirements of the standard have been fulfilled. It must be able to communicate the results and to facilitate the effective implementation of the standard.

Nordic Ecolabelling has a procedure for approving standards and certification systems. Please contact Nordic Ecolabelling for information on which standards have already been approved.

Appendix 10 Raw materials from certified forests or organic farming

Manufacturer/supplier:
Product:

Product	Type of wood/ bamboo	Geographic origin (country/region)	Forest standard	Quantity (%) of timber from certified forests used in the product

For wood and bamboo products that are not certified to a forestry standard, fill in the first three columns and specify 0% in the final column.

The forestry standard, certification system and certification body must be approved by Nordic Ecolabelling.

Chain of Custody certificate

Many suppliers use a chain of custody certificate (CoC) complying with the standards of the international systems, such as the Forest Stewardship Council (FSC) and the Programme for the Endorsement of Forest Certification schemes (PEFC). A chain of custody certificate is not by itself sufficient documentation for requirement O25 since the wood may come from a forest environment with a local forest standard that is not approved by Nordic Ecolabelling. To fulfil requirement O25, besides a chain of custody certificate, the origin of the timber and proportion of timber from that area must be specified.

Signature of licensee/building manufacturer

Date	Company name
Administrated by, signature	Telephone
Clarification of signature	E-mail

Appendix 11 Specification of timber (summary)

Licensee/building manufacturer

Timber from certified forests:

Certified (%)	Material	Producer	Quantity of wood /bamboo (m ³)	Certified wood (m ³)
Total				

Percentage of timber from certified forests = _____

Quantity of timber from certified forests/total amount of timber used in the products = _____

Signature of manufacturer:

Date	Company name
Administrated by, signature	Telephone
Clarification of signature	E-mail

Appendix 12a Formaldehyde in wood-based products (applicable until 31 December 2013)

Wood-based board used for building boards, flooring or furniture that contains more than 3% by weight formaldehyde-based additives must fulfil either a) or b) below:

a) The content of free formaldehyde must not on average exceed 8 mg formaldehyde/100 g dry product in accordance with the current version of EN-120 or other equivalent method, approved by Nordic Ecolabelling, see appendix 12c.

The requirements apply to wood boards with a moisture content of $H = 6.5\%$.

If the moisture content of the board is different from the figure stated above, but falls within the range of 3% to 10%, the measured perforator value must be multiplied by a factor F which is derived from the following formula:

Chipboard: $F = -0.133H + 1.86$

MDF: $F = -0.121 H + 1.78$

b) The emissions of formaldehyde must not on average exceed 0.13 mg formaldehyde/m³ air when tested in accordance with the current version of EN 717-1 or other equivalent method, approved by Nordic Ecolabelling, see appendix 12c.

Documentation

To verify that boards with prohibited levels of formaldehyde are not used, the following documentation is required:

- For products approved by Danish or Norwegian indoor climate labelling: copy of valid licence/certificate.
- For product approved according to the Finnish classification system
- Emission Classification of Building Materials class M1 and M2: copy of valid licence/certificate.
- For products approved by class E1: copy of valid licence/certificate.
- For products approved by P-labelling in Sweden: copy of valid licence/certificate.
- Alternatively, test report including methods, result and frequency used when testing. It must be clearly stated which standard that has been used and which laboratory performed the analysis. It also must be stated that the laboratory is an independent third party, see appendix 12c.

Appendix 12b Formaldehyde in wood-based products (obligatory as of 1 January 2014)

Wood-based board used for building boards, flooring or furniture that contains more than 3% by weight formaldehyde-based additives must fulfil either a) or b) below:

a)) The content of free formaldehyde must not on average exceed 5 mg formaldehyde/100 g dry matter for MDF boards and 4 mg formaldehyde/100 g dry matter for all other boards in accordance with the current version of EN-120 or other equivalent method, approved by Nordic Ecolabelling, see appendix 12c.

The requirements apply to wood board with a moisture content of $H = 6.5\%$.

If the moisture content of the board is different from the figure stated above, but falls within the range of 3% to 10%, the measured perforator value must be multiplied by a factor F which is derived from the following formula:

Chipboard: $F = -0.133H + 1.86$

MDF: $F = -0.121 H + 1.78$

b) The emissions of formaldehyde must not, on average, exceed 0.09 mg formaldehyde/m³ air for MDF and 0.07 mg formaldehyde/m³ air for all other boards in accordance with the current version of EN 717-1 or other equivalent method, approved by Nordic Ecolabelling, see appendix 12c.

Documentation

To verify that boards with prohibited levels of formaldehyde are not used, the following documentation is required:

- For products approved by the Finnish classification system "Emission Classification of Building Materials", class M1: copy of valid licence/certificate.
- Alternatively, test report including methods, result and frequency used when testing. It must be clearly stated which standard that has been used and which laboratory performed the analysis. It also must be stated that the laboratory is an independent third party, see appendix 12c.

Appendix 12c. Formaldehyde in wood-based products – test methods and requirements on test laboratories

Test methods (applies to both 12 a and 12 b)

To determine the content of free formaldehyde, the most recent applicable Europeanorm for the perforator method is to be used. The current version of EN 120 must be used, until it is replaced by a different EN method.

Other test methods, such as JIS A 1460 or equivalent, can be used after approval from Nordic Ecolabelling.

As a suitable chamber method for wood boards, the European Standard EN 717-1 is recommended. The current version of EN Standard for determination of reference emission values must be used. Other test methods, such as ASTM D6007-2, or equivalent, can be used after approval from Nordic Ecolabelling.

It must always be clearly stated which test method has been used. If conversion factors are used, this must be documented in order to fulfil the requirement.

Sampling frequencies are set in standard EN 120 (Perforator method) and/or EN 717-1 (Climate Chamber method) and/or in the regulations of the Finnish classification System (http://www.rts.fi/emission_classification_of_building_materials.htm).

Requirements on test laboratories (applies to both 12 a and 12 b)

Sampling for testing 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.

The laboratory performing the analysis must fulfil the general requirements contained in standard EN 45001 or DS/EN ISO/IEC 17025 or be an official GLP approved laboratory. The applicant is liable for costs in connection with documentation and analyses. The manufacturer's own laboratory may be approved to perform analyses and tests if:

- sampling and testing are monitored by the authorities,
or if
- the manufacturer has a quality management system encompassing sampling and analysis and has been certified to ISO 9001 or ISO 9002,
or if
- the manufacturer can demonstrate agreement between a first-time test conducted at the manufacturer's own laboratory and testing carried out in parallel at an independent test institute, and the manufacturer takes samples in accordance with a fixed sampling schedule.

Appendix 13 Declaration on formaldehyde in wood- and bamboo based materials

Product name:
Description of product:
Manufacturer/supplier:

Does the wood board contain more than 3% by weight of formaldehyde-based additives?

Yes No

If yes, please answer the questions below and enclose test results or certificate

Appendix no. _____

Are the requirements of Appendix 12a regarding the emission of formaldehyde fulfilled?

Yes No

Are the requirements of Appendix 12b regarding the emission of formaldehyde fulfilled?

Yes No

Is the product certified regarding its content of formaldehyde?

Yes No

If yes, what certification is held? _____

Signature of manufacturer:

Date	Company name
Administrated by, signature	Telephone
Clarification of signature	E-mail

Appendix 14 Marketing of Nordic Ecolabelled small houses, apartment buildings and pre-school buildings

We hereby certify that we are well acquainted with the regulations governing the use of the Nordic Ecolabel, as detailed in "Regulations for the Nordic Ecolabelling of products" of 22 June 2011 or later version. We agree to follow these regulations in our marketing.

Further, we confirm that we are familiar with the criteria document regarding the Nordic Ecolabelling of small houses, apartment buildings and pre-school buildings, in particular concerning issues regarding marketing.

We undertake to advise those individuals within the company involved in marketing the Nordic Ecolabelled building of the criteria for the Nordic Ecolabelling of small houses, apartment buildings and pre-school buildings and "Regulations for the Nordic Ecolabelling of products" of 22 June 2011 or later version.

In cases where extensions to existing buildings are Nordic Ecolabelled, we confirm that we only market the extensions as Ecolabelled. Our marketing must not lead to misunderstandings that the whole building is Ecolabelled. We undertake to advise those individuals within the company involved in marketing.

Date	Company name
Administrated by, signature	Telephone
Clarification of signature	E-mail

Regarding a Nordic Ecolabelled extension to an existing building the client must also sign below:

Date	Company name
Administrated by, signature	Telephone
Clarification of signature	E-mail

In case of a change in personnel, a new declaration must be submitted to Nordic Ecolabelling.

Appendix 15 Quality controls of Nordic Ecolabelled buildings to be performed by an independent third party

Building element	Inspection point	Percentage or proportion	Inspection method	Comments
General	Quality assurance	Random inspection	Review of quality assurance material	If quality assurance includes any of the following points, quality assurance material can be used as documentation.
	Craftsmanship	Alongside the general inspection of the building	Visual	When the inspection points below are performed, a general assessment of the building's level of craftsmanship shall be made.
	Indoor environment	100%	Visual	All rooms must have provisions for supply and exhaust air, either through forced ventilation or fresh air vents in walls and ceilings
	Calibration of ventilation system		Inspection of documentation	Calibration shall be performed by the company that installs the system. This should be documented in the quality assurance documents.
Grounds	Calibration of other heating systems incl. underfloor heating		Inspection of documentation	Calibration shall be performed by the company that installs the system. This should be documented in the quality assurance documents.
	Fall from building	100 %	Visual	Rainwater must be led away from the building
	Entrance without difference in level	100 %	Visual	Entrances with no difference in level must be designed to prevent water entering the floor structure.
Foundation	Radon barrier	Inspection of 1-2 points.	Visual inspection through installation hatch or with endoscope.	This inspection point may be omitted if, for example, a radon extractor is installed in accordance with the supplier's instructions.
	Floor drains and drainpipes	The building's floor drains	Visual	

Exterior walls						
Masonry walls						
	Jointing		If applicable		Visual	
	Cladding		100 %		Visual	Above all, if insufficient light stone cladding is used during construction, the masonry may become miscoloured.
	Acid washing		100%		Visual	Acid washing should ideally be avoided or should be performed in accordance with MURO guidelines for acid washing. (DK)
	Surface treatment		100%		Visual	The surface treatment of masonry shall be performed in accordance with "Tegl 18" (DK)
Timber walls						
	Cladding		100%		Visual	
	Air barrier		1 inspection point shall be selected		Endoscope	The permeability of the air barrier shall be assessed in relation to the entire construction. If barrier plaster is used, check that this is not subject to direct contact with water.
Bathrooms and toilets						
	Fall of the floor (wetrooms)		100 %		Water poured onto the floor shall run towards the drain.	If necessary, dye can be added to the water to facilitate inspection. (The floor may need cleaning following inspection.)
	Tanking		1 inspection point shall be selected		Remove the collar of by pipework and inspect the thickness of the membrane and the sealing sleeve.	
	Junction box		As above		Check that the correct materials have been used for installation.	
	Spotlights		1 spotlight		Remove the spotlight and check that there is a safebox or similar over the spot.	The purpose is to prevent damp air diffusing into the building structure and insulation. Alternatively, spots can be mounted in a lightbox.
	Tiling		100%		Visual	Assessment of craftsmanship.

Windows and doors						
	Surrounding seals	1 window	Visual	Interior seal and breathable exterior seal.		
	Fitting	100%	Check that all doors that can be opened are mounted correctly	Doors and windows must open freely and seal well when closed.		
Roofing						
	Laying of underlay	Select 3 details		Examples of details include eaves, exhaust air vents and valleys.		
	Ventilation	1 inspection point shall be selected	Check with an endoscope the ventilation space between the underlay and insulation	If a breathable underlay is used, the ventilation gap between the underlay and insulation should be an average of 3 cm. (DK)		
	Ventilation at the base and ridge of the roof.	1 inspection point at the base of the roof	Measure that the gap fulfills regulatory requirements.			
	Roofing			Compare pertinent trade description for the actual roofing material and the work that has been performed.		
	Loft braces	Where loft braces are visible	Visual			
	Construction at base of roof	1 inspection point shall be selected	Endoscope/Visual			
	Construction of gable if loft area utilized	1 inspection point on each gable.	Visual	Gables constructed using buttresses are considered a structural fault. (DK)		
	Wall-roof construction (wall plate) to ensure that load is transferred to the walls	2 inspection points shall be selected	Visual			
Interior walls						
	Plasterboard walls	Random sample	Remove electrical sockets.			
Ceiling						
	Plasterboard ceiling	Random sample	Remove junction box.			