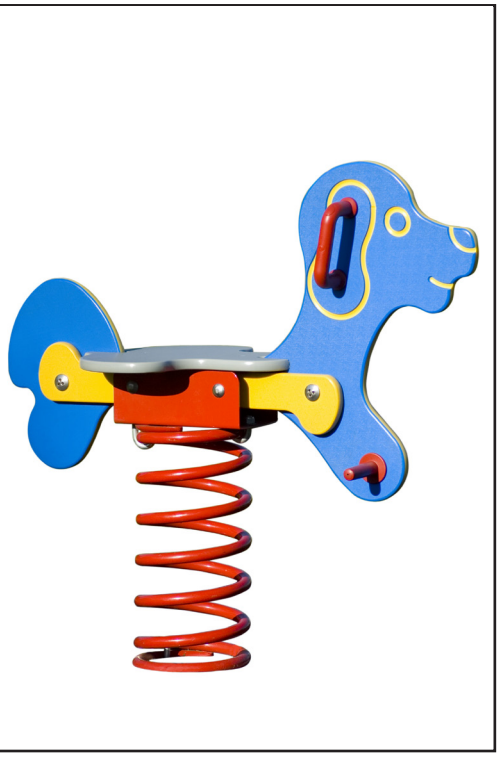
Nordic Ecolabelling of

Outdoor furniture and playground equipment



Version 3.6 • 17 March 2011 – 31 March 2019

Nordic Ecolabelling

Content

073 Outdoor furniture and playground equipment, version 3.6, 10 December 2014.

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

Addresses

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

Denmark
Ecolabelling Denmark
Danish Standard
Portland Towers
Göteborg Plads 1
DK-2150 Nordhavn
Phone +45 72 300 450
Fax +45 72 300 451
E-mail: info@ecolabel.dk
www.ecolabel.dk

Sweden
Ecolabelling Sweden
Box 38114
SE-100 64 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 Helsinki
Phone +358 9 61 22 50 00
Fax +358 9 61 22 51 99
E-mail: joutsen@ecolabel.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

What is Nordic Ecolabelled outdoor furniture/ playground equipment?

The purpose of the criteria is to secure low environmental impact in the production and use of outdoor furniture and playground equipment. The environmental requirements have been drawn up from a life cycle perspective and have been formulated to ensure minimum environmental impact during production, use and in the waste phase. Requirements have accordingly primarily been imposed with respect to the following:

a) Wood raw materials from sustainable forestry operations.

b) The use of recycled plastic and metal raw materials and a design that permits the re-use of plastic and metal.

c) The use of chemicals with a lower environmental impact.

d) Good performance properties (safety, strength and stability).

The Nordic Ecolabelled product must be accompanied by information on how to maintain the product and recommended maintenance of products. This information must also include instructions on how to proceed when the product comes to the end of its useful life.

Why choose the Nordic Ecolabel?

- The licence-holder may use the Nordic Ecolabel, the Swan, logo in marketing activities. The Nordic Ecolabel enjoys widespread renown and credibility in the Nordic countries.
- Nordic Ecolabelling represents a simple and cost-effective way of communicating a company's environmental work and commitment to its customers and suppliers.
- Embracing environmentally friendly production will also prepare the company for the introduction of mandatory environmental requirements by the authorities.
- Environmental issues are complex and learning about specific problems can be time-consuming. Nordic Ecolabelling can be used as a guide in this process.
- The Nordic Ecolabel criteria contain more than environmental requirements, they also comprise quality requirements, since quality and caring for the environment often go hand in hand. This means that the Nordic Ecolabel can also be viewed as a mark of quality.

What products are eligible for Nordic Ecolabel?

Ecolabelling within this product group encompasses outdoor furniture (garden furniture) and playground and park equipment.

Outdoor furniture means chairs, tables, armchairs, benches and sofas that are moveable. Playground equipment includes swings, slides, playhouses and other outdoor playing equipment. The product group encompasses playground equipment for domestic use and for public playgrounds – both conventinal and natural playgrounds. Park equipment includes for example wood / bike / bus / tool sheds, fences/railings, flower boxes, flagpoles, waste baskets and outdoor left outdoors on a permanent basis.

The product group does not include outdoor furniture containing padding or textiles. Nor does it encompass hanging benches and hammocks. Safety surfaces for playground equipment, cycles and toys for outdoor use are not encompassed by the product.

How to apply

Licence applications may be submitted by manufacturers, importers, wholesalers and dealers.

To qualify for an ecolabel a product must meet all the general requirements as well as relevant product - specific requirements. Each requirement is labelled with the letter R (for requirement) followed by the relevant number.

All information submitted to Nordic Ecolabelling will be treated confidentially. Suppliers may submit documentation directly to Nordic Ecolabelling, where the information will be kept confidential with respect to the applicant.

Icons used in the text

Each requirement is accompanied by a description of the way in which the requirement is to be documented. Various icons are also used to make this process easier. These icons are:

✉ Enclose.

🔍 Requirement checked on-site.

🕮 Submit procedures governing environmental and quality management system.

If the requirement needs an explanation (e.g. footnotes), this should be inserted directly after requirement, in italics (explanatory text).

Application

Applications must be submitted to Nordic Ecolabelling in the country in which the furniture/fitment is produced/will be on sale, see the address list on page 2. The application documents comprise an application form and documentation showing that the requirements are fulfilled. They can be downloaded from the home pages of the national secretariats.

Further information and assistance with the application process is available on the websites of the individual countries or by contacting one of the secretariats.

Sales in other Nordic countries

Registering the licence in the other Nordic countries allows the Nordic Ecolabel to be used on a larger market. To do so, the following documents must be submitted to the secretariats in the countries in question:

- A completed form for registration for sales in the country in question.
- Instructions for use in the language in question.
- Documentation evidencing compliance with national regulations.
- Documentation of membership of system for recycling products and packaging.

Registration is free of charge, but an annual fee based on turnover is payable in accordance with the regulations in force in the individual countries.

On-site inspections

Before a licence is granted, Nordic Ecolabelling will conduct an on-site inspection to verify that the requirements have been fulfilled. During the inspection, the data used in calculations, original copies of submitted documentation, measurement certificates, purchasing statistics and the like confirming adherence to the requirements must be available for examination.

Costs

An application fee is payable by companies applying for a licence. In addition, an annual fee is payable based on the sales of the Nordic Ecolabel furniture/fitments.

Inquiries

Nordic Ecolabelling will be happy to answer any queries you may have. Please see the address list on page 2.

What are the requirements for the awarding of a Nordic Ecolabel?

All requirements must be fulfilled in order for a Nordic Ecolabel licence to be awarded.

1 Materials

Where multiple product types are produced with different compositions of materials, the materials in the products may be approved on the basis of a producer-specific list of materials. Nevertheless, a calculation must be performed for each product to ensure that all requirements are fulfilled. Some requirements may be documented on an annual basis at factory level.

For example, an outdoor furniture manufacturer may document the requirement applicable to wood from certified forestry operations (R4) on the basis of the proportional content based on one year's consumption for the Nordic Ecolabel product/products. The following requirements may be documented on an annual basis: R2, R4, R8, R9, R10, R11 and R23.

Are the requirements met?

R1 **The composition of the outdoor furniture and playground equipment** Yes ☐ No ☐

The applicant must describe the materials contained in the product.

Enter the weight in kilograms for each material. Small details like screws, brackets and hinges do not weighed. Provide an overview of the different materials and their suppliers. Use Table 1 to obtain an overview of what requirements are appropriate.

Materials in respect of which no requirements are imposed (e.g. composite materials, stone and ceramics) must not make up more than 5 weight-% of the product. In total, the product may consist of maximum 10 weight-% of materials for which no requirements are imposed.

✉ Material composition of the product with a specification of ingoing materials. Small parts such as screws, fittings and hinges need not be weighed. A specification must be provided of the proportion (%) that the individual materials make up of the total weight of the product (materials must be specified in terms of weight and weight %). Complete table 1 and form 1 in appendix 2, based on information on material combinations.

Appendix no. _____

Table 1: Overview of materials and the requirements for which documentation must be provided

Material	Level	Requirement	Form	Quantity	Relevant
Wood	General	R2 – R4	2a-2c		Yes ☐ No ☐
Wood-based panels	General (more than 5 weight-%)	R5 – R8	3		Yes ☐ No ☐
	More than 10 weight-%	R9 – R11	2a-2c and 5		Yes ☐ No ☐
Chemical products	General	R12 – R16	3		Yes ☐ No ☐
Wood preservative	General	R17	3		Yes ☐ No ☐
	Not outdoors permanently	R18	3		Yes ☐ No ☐
	Outdoors permanently	R19	3		Yes ☐ No ☐
Surface treatment of wood and wood-based panels	General	R20	3		Yes ☐ No ☐
Maintenance products for wood	General	R21	3		Yes ☐ No ☐
Metal	General	R22	6		Yes ☐ No ☐
	More than 50 weight-%	R23	6		Yes ☐ No ☐
Surface treatment of metals	General	R24 – R25	3 and 6		Yes ☐ No ☐
Plastic	General	R26 – R29	3 and 7		Yes ☐ No ☐
	More than 10 weight-%	R30	7		Yes ☐ No ☐
Other requirements	General	R31-R43	8		Yes ☐ No ☐

2 Environmental requirements

2.1 Solid wood, willow and bamboo

Are the requirements met?

The requirements encompass wood, willow and bamboo present in a product, excluding small wooden parts such as wedges and the like.

R2 Traceability/wood raw materials

Yes ☐ No ☐

This requirement concerns all product parts containing wood, willow or bamboo. The applicant must state the type of raw material (for example pine or bamboo), latin name, quantity, geographic origin (country/state and region/provins) and suppliers for the wood, willow or bamboo raw materials.

The licence holder must have written procedures covering sustainable wood supplies and a documented system for tracing the origin of raw materials. The Nordic Ecolabel may request further documentation in the event of uncertainty about the origin of the raw material.

Wood, willow and bamboo must not originate in:

- Protected areas or areas treated by means of an official procedure with a view to achieving protected status.
- Areas in which rights of title or of use are unresolved.
- Unlawfully harvested wood and fibre raw materials.
- Genetically modified trees and plants.

☒ Name (in latin and in a Nordic language), quantity and geographical origin (country/state and region/province/municipality) of the wood and fibre raw materials used. Form 2a is to be filled in by the wood supplier and form 2b by the producer/applicant. Nordic Ecolabelling may request further documentation in the event of uncertainty about the origin of the raw material. — Appendix no. _____

☒ A written procedure describing how the requirement is met. The procedures must include an updated list of all suppliers of wood and fibre raw materials used in the product. Form 2b is to be filled in by the producer/applicant. — Appendix no. _____

R3 Solid wood - Biocides — Yes ☐ No ☐

After felling wood must not be treated with insecticides classified by WHO as type 1A and type 1B.

This requirement applies to the treatment of timber after felling.

WHO classification: An overview can be found at: http:// www.who.int/ipcs/publications/pesticides_hazard/en, "The WHO recommended classification of pesticides by hazard and guidelines to classification 2009" or by contacting one of the secretariats.

☒ Information from the supplier of the timber on the insecticides that are used and declaration in accordance with Form 2a for each individual product. — Appendix no. _____

R4 Wood from certified forestry — Yes ☐ No ☐

The requirement encompasses solid wood and veneer. It does not apply to willow and bamboo.

70 weight-% on an annual basis of all purchased solid wood and veneer in the product to which the application for a Nordic Ecolabel applies must derive from certified forestry. Certification must be performed by a third party in accordance with a current forestry standard that fulfils the requirements applicable to standards and certification system, cf. Form 2c.

☒ Specification of the proportion of incoming wood from certified forestry operations on an annual basis and the basis for calculation. Producer may use Form 2c. — Appendix no. _____

☒ Description of the system used to secure the traceability of the wood. — Appendix no. _____

☒ Copy of the certificate(s) duly signed and approved by a certification body. Nordic Ecolabelling may request additional documentation for the purpose of assessing whether the requirements applicable to standards, certification systems and certified proportion have been fulfilled. This might, for example, include a copy of the approval report drafted by the certification body, a copy of the forestry standard including the name, address and telehone number of the organisation responsible for drafting the standard and reference to persons representing parties and interest groupings invited to participate in the development of the forestry standard. — Appendix no. _____

2.2 Wood, willow and bamboo panels

Are the requirements met?

The requirements of this chapter includes panels of solid wood, laminating wood, solid wood panels (plywood and parallel laminated veneer), wood-based panels and HPL panels (high pressure laminate).

Wood-based panels include chipboard, fibreboard, MDF panels, OSB and veneer boards (plywood and parallel laminated veneer). The requirement also encompasses equivalent products made of willow and bamboo. Other equivalent raw materials may be included by submitting a request to Nordic Ecolabelling. The requirement applies only to panels present in the products in quantities in excess of 5 weight-%.

R5 Ecolabelled panels

Yes ☐ No ☐

If the panel is Ecolabelled, the requirements of Chapter 2.2 (R6 – R11) will have been fulfilled.

✉ If the panel is Ecolabelled, the panel type and manufacturer and licence number must be specified.

Appendix no. _____

R6 Chemical product and additives in the panel (e.g. surface treatment)

Yes ☐ No ☐

Chemical products for the surface treatment of wood must comply with the following requirements and the requirements of Chapter 2.3 (R12–R15). The requirement relates to the chemical products and their chemical composition at the time at which they are added to the panel.

However, this requirement includes an exemption from R12 as regards classification as an environmental hazard (N with R50, R50/53 or R51/53 or/with R59). The total quantity of ingoing chemical substances classified by the chemical supplier as environmentally harmful in accordance with the Dangerous Substances Directive 67/548/EEC as adapted to REACH in accordance with Directive 2006/121/EC and the Dangerous Preparations Directive 1999/45/EC all with subsequent amendments and adaptations must be < 0.5g/kg of panel. The requirement applies to the chemical products with their chemical composition at the time they are added to the panel material. Ammonia in excess of 24% is not included in this quantity.

✉ For each chemical product in the panel documentation must be submitted by the chemical supplier in accordance with Form 3. The panel manufacturer must account for the total quantity of ingoing substances as g/kg of panel material classified by the chemical supplier as environmentally harmful.

Appendix no. _____

R7 Formaldehyde in wood based panels

Yes ☐ No ☐

In the case of panels that contain formaldehyde-based additives or where the surface treatment includes formaldehyde one of the following two requirements must be fulfilled:

1) The average content of free formaldehyde must not exceed 5 mg formaldehyde/100 g dry product for MDF panels and 4 mg/100 g dry product for all other panels as determined by the current version of EN 120 (the perforator method) of similar methods approved by the Nordic Ecolabel (se point 3, Appendix 1).

The requirements apply to wood panels with a moisture content of H = 6.5%.

If the panels have a different moisture content within the range 3 – 10%, analysed perforator value must be multiplied by Factor F derived from the following formulae:

For chipboard panels: F = -0.133 H + 1.86

For MDF: F = -0,121 H + 1.78.

2) Average emissions of formaldehyde must not exceed 0.124 mg/m^3 air for MDF panels and 0.07 mg/m^3 air for all other panels as determined by the current version of EN 717-1 of similar methods approved by the Nordic Ecolabel (specified in Appendix 1).

✉ Analysis report describing measurement methods, measurement results and measurement frequency. It shall clearly be stated which method is used, who has performed the analyses and be documented that the test institution is an independent third party.

Appendix no. _____

R8 **Uncertified wood raw material in the panel** Yes ☐ No ☐

This requirement concerns all panels containing wood, willow, bamboo or fibre products thereof.

The licence holder must have written procedures covering sustainable wood and fibre raw material supplies and a documented system for tracing the origin of fibre raw materials.

Wood and fibre raw materials must not originate in:

- Protected areas or areas treated by means of an official procedure with a view to achieving protected status.
- Areas in which rights of title or of use are unresolved.
- Unlawfully harvested wood and fibre raw materials.
- Genetically modified trees and plants.

Sawdust/wood chips and/or waste wood and/or untreated demolition wood and/or recycled fibres from other industrial activities, such as sawmills, are covered by this requirement but must meet only the last part of the documentation requirement (written procedures).

✉ Name (in latin and in a Nordic language), quantity and geographical origin (country/state and region/province/municipality) of the wood and fibre raw materials used. This does not include sawdust/wood chips and/or waste wood and/or untreated demolition wood and/or recycled fibres from other industrial activities, such as sawmill. Nordic Ecolabelling may request further documentation in the event of uncertainty about the origin of the raw material. Form 2a is to be filled in by the wood supplier and form 2b by the producer/applicant. **Appendix no. _____**

✉ A written procedure describing how the requirement is met. Sawdust/wood chips and/or waste wood and/or untreated demolition wood and/or recycled fibres from other industrial activities, such as sawmill are included in this criteria. **Appendix no. _____**

2.2.1 By more than 10 weight-% wood-based panel

Are the requirements met?

R9 **Certified wood raw material in the panel** Yes ☐ No ☐

The requirement does not encompass wood fibre panels.

The requirement includes solid wood, laminated wood and veneer. Minimum weight 50% of all purchased raw wood material to the panel must annually come from certified forests.

The requirement can be documented as wood raw material purchased annually and shall be calculated for the different woods used. Certification must be performed by third party pursuant to applicable forestry standards which meets the standard and certification see Form 2c.

Willow, bamboo, sawdust, waste wood, non demolition wood and recycled fibers from other industrial production is not covered by this requirement.

✉ Presentation of the proportion of wood from certified forestry annually and base. Form 2a may be used by suppliers. **Appendix no. _____**

✉ Description of the system used to ensure traceability of the wood. Form 2b may be used. **Appendix no. _____**

✉ Copy of the certificate which is signed and approved by a certifying body. The ecolabelling organization may collect additional evidence to assess the requirements for standard certification system and that certified percentage is met. Eg. copy of the certification approval report, copy of the standard of forest including name, address and telephone number of the organization which has designed the standard, as well as references to persons who represent parties and interest groups who are invited to participate in the development of forestry standard. **Appendix no. _____**

R10 Energy consumption and raw material origins

Yes ☐ No ☐

The requirement applies to all panels as described in Chapter 2.2 Wood, willow and bamboo panels.

The requirement consists of two parts. One part consists of a formula where a specific points score must be achieved by dividing the various environmental parameters by a factor and adding them together. In order to fulfill the requirement, the score for the panel must exceed a threshold value.The other part is specific requirements/threshold values imposed on the parameters in the formula.

Energy consumed in the production of the wood-based panel must be less than or equal to the requirements stated in the following table for electricity and fuel consumption.

Tabel 2

Environment parameter	Max requirement
A = Wood raw material from certified sustainable forestry (%)	
B = Proportion of recycled raw material (%)	
C = Proportion of renewable fuel (%)	
D = Electricity consumption (kWh/m^2)	Max 1 kWh/kg
E = Fuel consumption (kWh/m^2)	Max 3,4 kWh/kg

Overall score P calculated with environmental parameters from the table above must be calculated with the formula below.

$$P = \frac{A}{25} + \frac{B}{25} + \frac{C}{25} + \left(4 - \frac{D}{0{,}25}\right) + \left(4 - \frac{E}{0{,}85}\right)$$

For requirement is to score:

P must be at least 9.5 in the case of chipboard

P must be at least 8.0 in the case of wood fibre/veneer and laminated panels.

Origin of raw materials

In the case of building panels made of wood, the use of wood from certified sustainable forestry operations is rewarded. The proportion of wood from certified sustainable forestry operations is calculated as an annual average. Secondary products such as wood chips and sawdust from other production processes can also be included in the certified part if documented. The same fibre fraction can calculated certified and reused.

Panels which uses secondary products or inorganic materials are rewarded if the raw materials are reused. Reused materiels are defined as production waste from other industial production or reused materials from used products (post consumer).

The raw material can also be without any documentation proving either certified or reused origin. The calculation of portion of certified or reused materials are calculated on the basics of the total amount of raw materials.

Energy consumption (electricity and fuel)

The requirement rewards low energy consumption and the use of renewable fuels. Renewable fuels are defined as fuel that is not fossil fuel (peat is defined as fossil fuel).

Energy consumption is calculated as an annual average.

Energy consumption calculated as kWh/kg of panel must encompass the primary panel production and the production of the ingoing raw materials in question. Primary raw materials are raw materials present in quantities in excess of 5 weight-% of the finished panel. Energy consumption in extracting the raw materials is not included.

In the case of panel production, energy calculations must be based on data from and including raw material processing (ingoing conveyor belt on the production line) up to and including the finished product before surface treatment, where applicable. Energy consumed during surface treatment must not be included.

As regards the production of chemical products, e.g. adhesives, the energy account must be based on production. The energy content of raw materials must not be included. In exceptional cases, a standard value for glue of 15 MJ/kg (solution in use) may be used, divided by 12 MJ/kg for fuel and 3 MJ/kg for purchased electricity (4:1).

Nordic Ecolabelling has chosen the unit of kWh per kg or m^3, but conversion to MJ (1kWh=3.6MJ) may also be used.

The energy content of various fuels can be found in Form 5.

If the manufacturer has a surplus of energy and sells this energy in the form of electricity, steam or heat, the quantity sold must be subtracted from the fuel consumption figure. Only fuel used in connection with building panel production must be included.

Electricity consumption is electricity purchased from an external supplier.

✉ Submit the calculation of P in accordance with the above formula. **Appendix no. _____**

✉ Wood raw materials are documented as shown in R9. **Appendix no. _____**

✉ Specify the proportion of recycled raw materials in the building panel and the type of raw materials in question. **Appendix no. _____**

✉ Specify the type of fuel used in the production of the panel over the last year and the fuel types are renewable. Form 5 contains standard values for various types of fuel. Specify the amount of electricity used and the number of building panels (kg or m^3), produced in the last year. **Appendix no. _____**

R11 Emissions to water **Yes ☐ No ☐**

In the case of panel material produced using wet processes (e.g. MDF) COD emissions to water ≤ 20 g COD/kg product (unfiltered sample).

✉ Methods of analysis, see Appendix 1. Sampling programme for waste water emissions, including measurement methods, measurement results for the last 12 months and measurement frequency. **Appendix no. _____**

2.3 Chemical products and materials

Are the requirements met?

Requirements encompass all chemical products added to the product or used in the factory/production site or by subcontractors, including surface treatment.

The requirements apply to products such as glue, varnish, stains, filler, primer, oil, soap, sealant, joint filler, colour products, binding agents, pigments, bleaching chemicals and the like.

Auxiliary substances such as lubricants and cleaning products are not encompassed by the requirements.

Metals and foil of metal (metalizing) is excepted from R12-R16.

Plastic is excepted from R12-R16 but excipient in plastic shall fulfill R15.

R12 Ecolabelled chemical products **Yes ☐ No ☐**

For chemical products that are Nordic Ecolabelled the requirements R13, R14, R15 and R16 can be skipped.

✉ Name, producer and licensenumber of the chemical product. **Appendix no. _____**

R13 Classification of chemical products

Yes ☐ No ☐

Chemical products used in production must not be classified in accordance with the table below.

Exceptions:
In the case of additives in wood based panels, R6 grants an exemption from the requirement concerning environmental hazard. See the specific requirements for building panels in R6. Exemptions are also given for classification R40 (category 3)/H351 (category 2) for classified adhesives that contain isocyanate and/or formaldehyde.

Yes ☐ No ☐

Chemical products used in high pressure laminates and classified as harmful for health. Such substances may be present in unreacted form, but if so documentation must be provided that these substances are not found in the finished laminate. Analytical method must be specified.

Wood preservative for products left outdoors permanently are exempted from this requirement. See R19 in chapter 2.4 for the requirements applicable to classification of these products.

Wood preservative for products not left outdoor permanently and containing biocides are exempted from the environmental hazard requirement.

R20 "Requirements as to surface treatment" grants en exemption as regard classification as an environmental hazard.

Tabel 3

Classification	Associated hazard symbol and R-phrases*	CLP-regulation 1272/2008*
Environmental hazard	N with R50, R50/53, R51/53 and/or R59.	H400 very toxic to aquatic life H410 very toxic to aquatic life with long-lasting effects H411 toxic to aquatic life with long-lasting effects and/or EUH059 harzardous to the ozone layer
Highly toxic	Tx (T+ in Norway) with R26, R27, R28 and/or R39	H330 fatal to inhale H310 Fatal in contact with skin H300 fatal if swallowed and/ or H370 Causes damage to organs
Toxic	T with R23, R24, R25, R39 and/or R48	H331 Toxic if inhaled H311 Toxic in contact with skin H301 Toxic if swallowed H370 causes damage to organs and/or H372 causes damage to organs through prolonged or repeted exposure
Carcinogenic	T with R45 or R49. Or Xn with R40	H350 May cause cancer H350i may cause cancer by inhalation or H351 Suspected to cause cancer
Mutagenic	T with R46 or Xn with R68	H340 May cause genetic defects H341 Suspected to causing genetic defects
Toxic for reproduction	T with R60 and/or R61. Or Xn with R62 and/or R63.	H360F May damage fertility and /or H360D may damage the unborn child H361f Suspected to damaging fertility And/or H361d Suspected to damaging the unborn child

The classification applies in accordance with the Dangerous Substances Directive 67/548/EEC with subsequent amendments and adaptations and/or the CLP regulation 1272/2008 with subsequent amendments. During a transition period, until 1st June 2015 both types of classification can be used. After the transition period only classification according to the CLP-regulation applies, see above table.

☒ Declaration in accordance with form 3 in Appendix 2 by the raw materials manufacturer or raw materials supplier.

☒ Product safety data sheets/product sheets in accordance with the current legislation in the country of application e.g. Appendix II of REACH (1907/2006/EC).

Appendix no. _____

☒ If the product is Nordic Ecolabelled specifying name, producer, and license number of the chemical product. Appendix no. _____

R14 The content of free formaldehyde in chemical products

Appendix no. _____

The quantity of free formaldehyde chemical products used in the production of Nordic Ecolabelled furniture/fitments may be up to 0.2 weight-% (2000 ppm), with the exception of adhesive witch is mixed with a hardener.

Yes ☐ No ☐

For adhesives mixed with a hardener the limit of 0.2 weight-% (2000 ppm) free formaldehyde is for the final mixture.

☒ Product safety data sheets/product sheets in accordance with the current legislation in the country of application e.g. appendix II of REACH (1907/2006/EC) and the declaration from the chemical producer (form 3).

☒ If the product is Nordic Ecolabelled specifying name, producer, and license number of the chemical product. Appendix no. _____

R15 Contents and additives in chemical products

Appendix no. _____

The requirements concerns chemical products used in the productions of Nordic Ecolabelled outdoor furniture or playground equipment (e.g. wood preservatives, surface treatment of wood, building panels, glue, metal and plastic.)

Yes ☐ No ☐

Exception:
Wood preservative for furniture or playground equipment left outdoors on a permanent basis is exempted from this requirement. See instead R19 for specific requirements applicable to these products.

The following must not be added to[1] the chemical product or material:

- Halogenated organic compounds. For example: PVC, organic chloroparaffins, flourine compounds, flame-retardants and organic bleaching agents[2]. The biocid CMIT in combination with MIT is exemted and has it´s own limits, se below
- PFOA (perflurooctanic acid and salts/esters thereof) and PFOS (perfluoroctylsulfonic acid and compounds thereof)
- Biocide chlorfenoler (their salts and esters) and dimethylfumerat
- The content of isothiazolin concentration exceeds 0.05 weight-%
- Mixture (3:1) of CMIT / MIT (5 Chloro-2-methyl-4-isothiazolin-3-one Cas. No. 247-500-7, / 2-methyl-4-isothiazolin-3-one Cas. No . 220-239-6) must not be higher than 0.0015 weight-%
- Bisphenol A compounds
- Phthalates
- Azidirine and polyazidirines
- Carcinogenic, mutagenic and reproduction damaging compounds (CRM) (category 1 and 2)
- Pigments and additives based on copper, lead, boron, creosote, tin, camium, chromiumVI and mercury and their compounds.
- The contents of alkylphenolethoxsylates and other alkylphenol derivatives[3].
- The content of volatile organic solvents[4] must not exceed 5 weight-% in glue and wood preservatives for products that are not left outdoors permanently.
- The aromatic content of solvents must not exceed 5 weight-% in adhesives and wood preservatives for products that are not left outdoors permanently.

[1] *It is accepted that ingoing substances may contain traces of substances that would otherwise be excluded in the requirements of the criteria. These are substances deriving from impurities. The trace quantity of the individual substance must not exceed 100 ppm (100 mg/kg, 0.01 weight-%) in the raw material.*

[2] *Note the national legislations concerning PFOA in the Nordic countries. In Norway PFOA is regulated in «Forskrift om begrensning i bruk av helse- og miljøfarlige kjemikalier og andre produkter (produktforskriften)», §2- 32.*

[3] *Alkylphenol derivaties are defined as substances that shed alkylphenols during degradation.*

[4] *Volatile organic solvents are defined as solvents with a boiling point <250°C at 101,3 kPa (1 atm)*

✉ For each chemical product present in the outdoor furniture or playground equipment a declaration is required from the chemical supplier, c.f. form 3. Appendix no. _____

✉ Declaration from the producer of the outdoor furniture or playground equipment form 3. Appendix no. _____

✉ If the product is Nordic Ecolabelled specifying name, producer, and license number of the chemical product. Appendix no. _____

R16 Nanomaterials Yes ☐ No ☐

In the case of nanometals, nanominerals, nanocarbon compounds and/or nanoflourine compounds actively added to chemical products and used in the production of Nordic Ecolabelled outdoor furniture or playground equipment, the licence applicant must submit documentation showing that the use of the nanomaterials in question will not cause problems in terms of health and the environment.

Nanoparticles are defined here as microscopic particles with dimensions of less than 100 nm. Nanometals include nanosilver, nanogold and nanocopper. Traces of nano-sized particles not added to achieve a specific function in the product are not encompassed by the requirement.

✉ Form 3 with declaration that nanomaterials are not used. If nanomaterials are used, documentation must be submitted showing that the use of the nanomaterial in question will not cause environmental or health problems. Appendix no. _____

✉ If the product is Nordic Ecolabelled specifying name, producer, and license number of the chemical product. Appendix no. _____

2.4 Wood preservatives

Are the requirements met?

Wood preservatives products must fulfil the following requirements (R17, R18 and R19) and their requirements provided for in chapter 2.3 (R13, R14 and R16).

If the durable wood is Nordic Ecolabelled then skip the rest of the requirements in chapter 2.4.

R17 Durability Yes ☐ No ☐

The product must have long durability, i.e. be resistant to fungal attack.

This requirement can be met as described below either by choosing the right sort of wood with natural long durability, constructive wood preservation, impregnation, heat treatment or surface treatment.

Wood with natural long durability (durability class 1 or 2 according to EN 350-2) must not be treated with wood preservatives.

One of the following types of sustainability must be met:

- Wood with natural durability, defined as (durability class 1 or 2 according to EN 350-2) meets the requirement.
- Constructive wood as risk class 2 see standard EN 335-1 is achieved.
- Treatment of wood such as impregnation, heat treatment, coating or other modification of the wood in accordance with the scope, as defined according to risk classes specified in the standard EN 335-1.

✉ Wood with natural durability: Describe the type of wood and the durability class. Appendix no. _____

✉ Constructive wood preservation: Description of the constructive wood pre servation (cf. risk class 2, EN 335-1) and submission of fungicidtest according to EN 113 for biological testing for risk class 2 performed on the product. The tree must grow old with appropriate method, eg. EN 73 or EN 84. Appendix no. _____

☒ By impregnation, heat treatment or assault treatment submitted evidence of compliance risk class see the scope specified in EN 335-1. And: submission of a fungicidtest according to EN 113 for biological testing of the relevant risk class conducted on the product. The tree must grow old with appropriate method, eg. EN 73 or EN 84. Appendix no. _____

☒ If Nordic Ecolabelled durable wood is used then indicate commercial name, manufacturer and license number of the durable timber. Appendix no. _____

R18 Wood preservatives for products that are not left outdoors on a permanent basis

Yes ☐ No ☐

The active ingredients (biocides) in maintenance products must not be potentially bioaccumulable cf. the following definition:

If a substance has been tested for bioaccumulability on fish in accordance with OECD 305 A-E and the bioconcentration factor (BCF) is > 500, the substance is viewed as bioaccumulable. If there is no BCF value, the substance is viewed as bioaccumulable if the substance $\log K_{ow} \geq 4.0$ in accordance with OECD 107, 117 or 123 Guidelines for Testing of Chemicals (ISBN 92-64-1222144) or similar, unless proven otherwise. If the lowest measured BCF ≤ 500 the substance is not regarded as bioaccumulable even if $\log K_{ow} \geq 4.0$.

OECD test guideline 107 cannot be used in the case of surface active substances that have both fat and water soluble properties. Based on what we know today, documentation with a high degree of certainty must be presented to show that these substances and their degradation products do not represent any hazard to water-borne organisms in the longer time perspective.

Computer models (such as BIOWIN) will be accepted, but if the results of modelling are close to the threshold value, or if Nordic Ecolabelling has conflicting data, more secure information must be obtained.

☒ Using form 3 the chemical producer must provide a declaration that the requirements applicable to the specific chemical products are fulfilled in the case of each individual chemical product. Appendix no. _____

R19 Wood preservatives for products that are outdoors permanently (e.g. playground and park equipment)

Yes ☐ No ☐

This requirement applies to products such as playground equipment and park and street furniture intended to be left outdoors permanently[4].

Impregnation Class A and Class M (according to the Nordic Wood Preservation Council's classification) are not permitted in risk class 4.

The impregnation of the product with biocides, such as heavy metals must fulfil Class B or AB according to the Nordic Wood Preservation Council's classification scheme (Class AB corre-sponds to Class B NP5/HC3 and Class B corresponds to Class NP3/HC3 according to the European Standard EN 335 and EN 351).

See list of approved products on http://www.ntr-nwpc.com.

Active ingredients must not be based on arsenic, chromium, organotin compounds or creosote oil.

For parts of the Nordic Ecolabelled product that is in risk class 4, is allowed impregnation with NTR-Class A.

☒ Using form 3 the chemical producer must provide a declaration that the requirements applicable to the specific chemical products are fulfilled in the case of each individual chemical product. Appendix no. _____

[4] A product is concidered permantely outdoors if it is bolted to the ground or otherwise not mobile.

2.5 The surface treatment of wood and wood-based panels

Are the requirements met?

Chemical products for the surface treatment of wood must comply with the following requirements and the requirements of Chapter 2.3 with the exception of the requirement applicable to classification as an environmental hazard. The requirement relates to the composition of the products at the time they are applied to the wood. The surface treatment requirements apply to primer, varnish, colour/stain, oil, wax, film and laminate.

R20 Surface treatment requirements

Yes ☐ No ☐

The surface treatment must comply with one of the following requirements:

1) Products for surface treatment must not be classified as an environmental hazard (N, with R50, R50/R53, R51/R53 and/or R59) or according to the CLP- statutory (Dangerous to the water environment category acute 1 H200, category: Chronical 1 H410, category: Chonical 2 H411 and/or EUH 059) and may as a maximum contains 7 weight-% x effectiveness of the organic solvent.

The aromatic content of the solvent must not exceed 5 weight-%.

2) Applications of substances classified as an environmental hazard (N, with R50, R50/R53, R51/R53 and/or R59) or according to the CLP- statutory (Dangerous to the water environment category acute 1 H200, category: Chronical 1 H410, category: Chonical 2 H411 and/or EUH 059) may as a maximum be applied 14g/m^2 of surface. For surface treatment, the quantity of organic solvent must not exceed 35 g/m^2 of surface. The aromatic content of the solvent must not exceed 5 weight-%.

The classification applies in accordance with the Dangerous Substances Directive 67/548/EEC with subsequent amendments and adaptations and/or the CLP regulation 1272/2008 with subsequent amendments. During a transition period, until 1st June 2015 both types of classification can be used. After the transition period only classification according to the CLP-regulation applies.

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

The following degrees of effectiveness are used for the purpose of calculation of the quantities applied (See table 4). The degrees of effectiveness are standard values and must be adapted. If other degrees of effectiveness can be shown to apply, they may be used instead if documentation can be provided.

Table 4 Efficiencies of different coatings

Spray varnishing without recycling	50%
Spray varnishing with recycling	70%
Spray varnishing, electrostatic	65%
Spray varnishing, bells/disc	80%
Roller varnishing	95%
Blanket varnishing	95%
Vacuum varnishing	95%
Dipping	95%
Rinsing	95%

Example: If the product is surface treated with the aid of spray varnishing without recycling, the product may as a maximum contain 3.5% organic solvents (7 x 50%).

✉ The chemical producer must declare in Form 3 that the requirement applicable to the specific chemical products is fulfilled for each chemical product. Appendix no. _____

✉ Specify surface treatment method. Appendix no. _____

✉ If the requirement is documented using Alternative 2, information must be submitted to permit the calculation of the quantity supplied in surface treatment. The quantity of surface treatment used per surface (g/m^2) must be specified. Appendix no. _____

2.6 Maintenance products for wood

Are the requirements met?

The following requirements apply to maintenance products recommended by the producer/supplier for products made of wood.

R21 Maintenance Products

Chemical products for maintaining wood must meet the requirements specified in R13, R14, R15, R16 and R18. The manufacturer shall specify the trade name of the recommended product.

☒ The chemical producer of maintenance products must declare on Form 3 that the requirement is fulfilled in the case of the recommended product. Appendix no. _____

☒ The licensee shall abandon trading name on the recommendation of date product. Appendix no. _____

2.7 Metal

Are the requirements met?

Exemptions are made from the requirements R22 to R25 for metal parts that weights less than 50 grams. The exception does not apply to coating with cadmium in R25 which is also prohibited by the Nordic authorities.

2.7.1 Re-use

R22 Scope for recycling Yes ☐ No ☐

Metal parts in the product must be separable from other materials in the product without the use of special tools to facilitate reuse.

☒ Description of how metal parts can be separated from other materials in the product. Appendix no. _____

R23 More than 50 weight-% metal in the product Yes ☐ No ☐

Product, with more than 50 weight-% metal in the product, shall either fullfil alternative a or b in this requirement.

Alternative a:
At least 50 weight-% of aluminum and 20 weight-% of other metals in the product must comprise recycled metal. Alternatively, the smelting plant that supplies the metal must utilise at least 50% recycled aluminum and 20% recycled metal (other) in production on an annual basis.

Recycled metal is defined here as both pre-consumer and post consumer as defined by ISO 14021.

Alternative b:
Aluminum and other metals in combination shall meet the following requirements for recycled metal:

$$re_{Al} * kg_{Al} + re_{Me} * kg_{Me} \geq 0{,}5 * kg_{Al} + 0{,}2 * kg_{Me}$$

Where:
kg_{Al} og kg_{Me} are the weight of aluminum and other metals in kg respectively.

re_{Al} og re_{Me} are the proportion of recycled aluminum and other metals respectively. This is to be given as a number between 0 and 1 (corresponds to 0% to 100%).

The proportion of recycled material can be documented for the actual share or on an annual basis. If declared on an annual basis the melting plant, that supplies the aluminum/metal, shall declare the recycling rate. Recycled metal is defined here as both pre-consumer and post-consumer as defined by the ISO standard 14021.

☒ Declaration (Form 6) from the producer of the product. Appendix no. _____

☒ Declaration (Form 6) from the supplier of metal parts. Appendix no. _____

2.7.2 Surface treatment of metal

R24 **Chemical products for the surface treatment of metal** Yes ☐ No ☐

Chemical products for the surface treatment of metal must comply with requirement R13 and R16 in chapter 2.3. Exceptions are given for R13- R16 in the metal production and the coating of the metal (metallisation).

✉ Account of the chemical substances used for surface treatment in accordance with Form 3. Appendix no. _____

R25 **The surface treatment of metal** Yes ☐ No ☐

Metals must not be plated with cadmium, chromium, nickel, zinc or compounds thereof. In exceptional cases, plating with chromium, nickel or zinc may be accepted in the case of small parts (screws, bolts, mechanisms etc.) if this is necessary on the grounds of heavy physical wear or parts that need to close tightly, are exposed to heavy wear or require plating for reasons of safety (for example table legs, chair legs and the low-bearing parts of playground equipment). The exception does not apply to parts that are in frequent contact with the skin of users (e.g. armrests).

The chrome plating process must be based on trivalent chromium and no hexavalent chromium must be used in any pre or post treatment processes. Chrome plating, nickel plating and zinc plating processes must use treatment processes, iron exchange processes and membrane processes or equivalent processes enabling chemical products to be reused insofar as this is possible.

Emissions from surface treatment processes must be re-used and destroyed. The system must be closed and without emissions, with the exception of zinc where the maximum emission must not exceed:

Zink: 0.5 mg/l

Sampling method for zinc: EN ISO 11885. Sampling frequency: Emission to water is calculated as year effective average and based on at least on representative 24 hours measuring per week. Sampling: Samples of the process water taken after external cleaning and the anylizes have to be carried out on unfiltered samples. Alternativly a sample frequence as appointed by authorites is accepted.

✉ Declaration from the furniture producer or supplier of surface treated metal, Form 6. Appendix no. _____

✉ In the case of surface treatment with chromium, nickel or zinc: Appendix no. _____

The need for this surface treatment must be documented with the aid of tests or a report showing that the metal surface is exposed to very heavy physical wear, is a part that needs to close tightly or needs the coating for safety reasons (play equipment).

2.8 Plastic and rubber

Are the requirements met?

Small plastic parts (e.g. screws, pins and dowels) are not included for the purpose of calculating the weight proportion and are not encompassed by the following requirements.

R26 **Material description and labelling of plastics** Yes ☐ No ☐

A description must be provided of the types of plastic, fillers and reinforcements in plastic parts. Parts made of plastic and weighing more than 50 g must be visibly labelled in accordance with ISO 11469.

Parts of PVC may not be used (except small parts).

✉ Declaration (Form 7) from producer or supplier of plastic. Appendix no. _____

R27 **Requirements as to classification and surface treatment** Yes ☐ No ☐

For requirements applicable to chemical substances used as additives or for surface treatment, see R15. Documentation as described in R15 and Form 3.

✉ Statement by the plastic manufacturer about chemical substances in additives and coatings in accordance with Form 2. Appendix no. _____

R28 **Nitrosamines in rubber** Yes ☐ No ☐

The content of nitrosamines or nitrosamine soluble substances must not exceed 0.01 mg/kg and 0.1 mg/kg of vulcanised rubber respectively.

✉ Statement by the rubber manufacturer about chemicals in the admixtures according to Table 2. Appendix no. _____

R29 **Surface treatment of plastic** Yes ☐ No ☐

Surface treatment is permitted if it can be shown that this will not undermine the possibility of re-using the plastic and that the surface treatment process fulfills the requirements contained in R15.

✉ A description showing that surface treatment will not undermine the possibility of re-using the plastic. Statement that shows that the surface treatment fulfils requirement R15. Form 3 may be used. Appendix no. _____

2.8.1 Requirements that apply if there is more than 10 weight-% of plastic in the product

Different types of plastic materials present in quantities in excess of 1 weight-% of the weight of the plastic materials must be added. If in total they make up more than 10 weight-%, the following requirements must be fulfilled:

R30 **Recycled/recovered plastic** Yes ☐ No ☐

In the case of products composed of more than 10 weight-% plastic, at least 50% of the plastic must consist of recycled material. Recovered plastic means plastic from decommissioned plastic products or post consumer packaging or production waste from the production of an external supplier.

Recycled plastic must not contain halogenated flame-retardants. However, a level of pollutants of up to 100 ppm is permitted.

✉ Declaration (Form 7) from the producer or supplier of plastic. Appendix no. _____

2.9 Requirements as regards consumer information, refuse processing and recycling systems

Are the requirements met?

R31 **Information for the consumer** Yes ☐ No ☐

The producer/supplier must inform the consumer of how best to use, maintain and store the product. The information must be made available in the official language in the country in which the Nordic Ecolabelled product is marketed.

The product must be accompanied by written instructions specifying:

- The area of use/end users for which the product is intended.
- How the product must be stored during the period of the year in which it is not in use (the winter season). This requirement applies to outdoor furniture not intended for permanent outdoor use.

- How the product should be maintained, what maintenance products are best suited for the product (oils, wax etc.) and how frequently these maintenance products should be used. Specific recommendations must be provided for maintenance products, with trade names, for wood in outdoor furniture or playground equipment and these products must be available in the countries in which the product is marketed. Recommended maintenance products must comply with these specific requirements applicable with maintenance products in chapter 2.6.
- The way in which the products must be handled at the end of its useful life (as waste). If the product has been treated with wood preservatives con taining biocides the producer must recommend that the consumer sort treated wood so that it is not mixed with untreated wood. The consumer must be urged to not incinerate treated or proofed wood. E.g. in an open fire, in a stove, an open fireplace, or wood-burning stove or wood-fired boiler.

✉ Copy of information material accompanying the outdoor furniture or play ground equipment. **Appendix no. _____**

R32 Production waste **Yes ☐ No ☐**

Wood based waste, metal scrap and plastic waste occurring during production of the product must be reused during production, delivered for collection for recycling, used as an energy source or composted.

Wood based waste containing wood preservative must be handled in the way recommended by the authorities in the country of production.

✉ Description of waste handling plan with the discussion of waste fractions, waste quantities and the handling of the individual fractions. **Appendix no. _____**

R33 Packaging requirements and recycling systems **Yes ☐ No ☐**

Packaging/wrapping must not contain chlorinated plastic.

Relevant national rules, statutes/and/or industry agreements concerning recycling systems for products and packaging must be fulfilled in the Nordic country/countries in which the ecolabelled product is marketed.

✉ Account of the packaging materials used by the producer/supplier. **Appendix no. _____**

✉ Declaration from the producer/supplier of chlorinated plastics that chlorinated plastics are not used in the packaging. **Appendix no. _____**

✉ Documentation from the applicants of membership of an existing agreement on recycling/processing, if such schemes exist. **Appendix no. _____**

3 Quality requirements and the requirements of the authorities

3.1 Functional requirements

Are the requirements met?

R34 Durable wood **Yes ☐ No ☐**

Wooden part in the product that come in the contact with the ground must be made of a durable wood or be treated (proofed or surface treated) or protected by means of screening, so that durability class 4 EN 351-1-2007 is fulfilled.

✉ Description of how wood comes into contact with the ground is protected and documentation of compliance with durability class 4, c.f. EN 351-1-2007. **Appendix no. _____**

✉ Description of how the design of the wooded product enables water to run off automatically. **Appendix no. _____**

R35 **Safety, strength and stability** Yes ☐ No ☐

The product must comply with the relevant requirement levels for safety, strength and stability relevant to the areas of application of the product.

Outdoor furniture
Outdoor furniture must as a minimum fulfil the requirement level for domstic use in accordance with EN 581-1, EN 581-2, EN 581-3 and EN 581-4. Outdoor furniture does not need to be tested in accordance with annex A of 581-2 and 581-3 (testing at high and low temperature). If the product is designed/ marketed for contract use, the product must be tested to requirement levels relevant for such use.

Playground equipment for public playgrounds
Playground equipment for public playgrounds, e.g. parks and schools, must fulfill the relevant requirement level for safety and in the following standards. EN 1500 supplements EN 1176 and can therefore not stand alone.

Standard	Area
EN 1176-1	General safety requirements
EN 1176-2	Swings
EN 1176-3	Slides
EN 1176-4	Cableways
EN 1176-5	Carousels
EN 1176-6	Rocking equipment
EN 1176-7	Guidance for installation, inspection, maintenance and operation
EN 1500	Natural playgrounds

Playground equipment for domestic use
Playground equipment for domestic use must fulfill the main requirements of the Toys Safety Directive 2009/48/EC as amended. This can be safeguarded in amongst other ways by documenting compliance with the harmonised standard, EN 71-1 (Mechanical and physical properties).

If the product fulfills the requirements of some other standard than the above EN standards, an independent test institution must give a statement on the way in which the standard relates to the above requirement levels.

✉ Information on the area of use of the product (domestic or public), the standards, test institutions and test report utilized. Appendix no. _____

✉ If relevant a description of how international/national standards relate to EU's requirement level. Appendix no. _____

3.2 Quality requirements and the requirements of the authority

Are the requirements met?

In order to safeguard fulfillment of the Nordic Ecolabel criteria the following procedures must be implemented.

If the applicant has a certified environmental management system in accordance with ISO 14 001 or EMAS, in which the following procedures are implemented it will be sufficient for the credited audited to confirm implementation of the requirements.

R36 **Responsibility for the Nordic Ecolabel** Yes ☐ No ☐

One person at the business must be allocated responsibility for compliance with the Nordic Ecolabel requirements and there must also be a contact person in touch with Nordic Ecolabelling.

✉ Organisational structure showing the personnel responsible for the above areas. Appendix no. _____

R37 **Documentation** Yes ☐ No ☐

The licence holder must be able to present a copy of the application as well as the material on which facts and calculations are based (including test reports, documents from subcontractors and the like) underlying the documentation submitted in the connection with the application.

🔑 Checked on site.

R38 **The quality of the product** Yes ☐ No ☐

The licence holder must guarantee that the quality of the Nordic Ecolabelled product will not deteriorate during the term of validity of the licence.

🕮 Procedures for compiling and if necessary processing complaints about the quality of these Nordic Ecolabelled products. Appendix no. _____

R39 **Planned changes** Yes ☐ No ☐

Planned changes that impact on the Nordic Ecolabel requirements must be reported in writing to Nordic Ecolabelling.

🕮 Procedures showing how planned changes are handled. Appendix no. _____

R40 **Unforeseen deviations** Yes ☐ No ☐

Unforeseen deviations that impact on the Nordic Ecolabel requirements must be reported in writing to Nordic Ecolabelling and recorded in a journal.

🕮 Procedures showing how unforeseen deviations are handled. Appendix no. _____

R41 **Traceability** Yes ☐ No ☐

The licence holder must be able to trace the Nordic Ecolabelled product throughout the production process.

🕮 Description/procedures for fulfilling the requirement. Appendix no. _____

R42 **Laws and regulations** Yes ☐ No ☐

The licence holder must insure that the applicable provisions governing safety, working environment, environmental legislation and production site specific terms/licences are followed at all production sites at which the Nordic Ecolabelled product is produced.

✉ Duly signed application form. Appendix no. _____

Marketing

The Nordic Ecolabel is a trade mark that enjoys a high degree of recognition and credibility in the Nordic countries. Nordic Ecolabelled products may be market using the Nordic Ecolabel for as long as the licence remains in force.

The label must be placed in such a way that there is no doubt about the meaning of the labelling and in such a way that it is made clear that the product is eco-labelled.

Information on marketing can be found in Regulations for the Nordic Ecolabelling of products 22 June 2011 or subsequent version.

Registration

If the licence is to be registered in another Nordic country the following documentation must be submitted.

- Application form for registration.
- Copy of the licence certificate.
- Instructions for use in the language in question.
- Registration number for a national recycling system for products and packaging other documentation showing fulfilment of the recycling requirements.

The design of the Nordic Ecolabel

The Nordic Ecolabel has the following design:

licence number

Each licence is allocated a unique licence number which must be used in conjunction with the label.

Further information on the design of the label can be found on rules on Nordic Ecolabelling of 22 June 2011 or subsequent version.

Follow-up inspection

The Nordic Ecolabelling may verify that the product continues to fulfill the Nordic Ecolabel requirements after the licence has been granted. This might for example take the form of an onsite inspection visit or random sampling. If the products are shown not to fulfil the requirements the licence may be revoked.

Random samples may also be taken from retail outlets and these may be analysed by an impartial laboratory. If the requirements are not fulfilled, Nordic Ecolabelling may require the licence holder to pay the costs of analysis.

The duration of licence

Nordic Ecolabelling adopted the criteria on 17 March 2011 and they will remain in force until 30 June 2015.

On 16 February 2012 the Secretariat Manager's meeting decided to adopt changes regarding formaldehyde (R7).The new version is called 3.1.

On 15 November 2012 the Secretariat Manager's meeting decided to adopt the following: Change regarding formaldehyde (R7) and exemption for requirements R22 to R25 for metal parts weighing less than 50 grams. The new version is called 3.2.

On 12 November 2013 the Secretariat Manager's meeting decided to adopt the following: Change regarding recycled metal (R23). Here is given an alternative in the requirement of combining the percentage share of the various metals. The new version is called 3.3.

On 3 April 2014 the Secretariat Manager's meeting decided to prolong the criteria until 31 March 2017. The new version is called 3.4.

On 3 September 2014 the Board of Directors decided to adopt changes regarding the requirements R19. It is now clear that the requirement only apply to wood preservatives with biocides or heavy metals. The new version is called 3.5.

At the Nordic Ecolabelling board meeting November 18, 2014, it was decided to extend the criteria by 2 years, to specify that wood/bike/bus and tool sheds are included in the product group, but that composite materials are not (R1). As well as expanding the product group with requirements for HPL plates, when these are approved in version 6 of Building board in February 2015. On 17 November 2014 the Board of Directors decided to remove requirement R43 Marketing The new version is called 3.6 and is valid until 31 March 2019.

The Ecolabelling licence will continue to apply for as long as the criteria are fulfilled and until these criteria cease to apply. The criteria may be extended or adjusted, in which case the licence will be extended automatically and the licensee will be notified.

One year at the latest (before the criteria cease to apply) the notification will be provided of the criteria that will apply after the final validity date of the current criteria. The licence holder will be given the opportunity to renew the licence.

New criteria

In the next revision of the criteria the following areas will be assessed:

- New requirements for reducing climate-energy impact.
- Emissions of VOC at factory level.
- Requirements for preservation of wood.

Appendix 1 Testing and control

1 Requirements as regards analysis and test institutions

The applicant is responsible for documentation and analysis costs.

1.1 Requirements that regards the test institution

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 checking by the ecolabelling organization.

The laboratory performing the analysis must fulfill the general requirements contained in standard EN ISO 17025 or be an official GLP-approved laboratory. The applicant will be liable for costs in connection with documentation and analyses.

The manufacturer's own laboratory may be approved to perform analyses and tests if:

- The analyses and tests are monitored by the authorities, or if
- The manufacturer has a quality assurance system encompassing sampling and analyses and has been certified to ISO 9001 or ISO 9002 or
- The manufacturer can demonstrate that it is consistent with the initial analysis/testing performed as a parallel analysis/test by an accredited laboratory and the manufacturer's own laboratory and that the manufacturer takes samples in accordance with a predetermined sampling.

1.2 Classification of environmental hazard

In a number of cases requirements are imposed as regards the environmentally harmful property of chemical substances. Classification is based on testing and is subject to the individual exemptions stated later in this section.

This concerns requirements applicable to:

- Adhesives and binding agents in wood-based panels.
- Agents for service treatment of wood-based materials.
- Other adhesives used in production.

Biodegradability, aerobic

Testing for biodegradability is conducted using test method number 301 (A to F) in OECD Guidelines for Testing of Chemicals (ISBN 92-64-1222144) or corresponding test methods.

Bioaccumulability

If the solution of the substance in n-octanol is at least 100 times greater than in water (Pow >3) the substance is regarded as bioaccumulable unless information to the contrary can be provided (OECD test guidelines 107 or 117). The bioaccumulability of a substance may also be tested on fish, c.f. OECD test guidelines 305 A-E. Bioconcentration factor (BCF) of the substance is 100 or more the substance regarded as bioaccumulable.

Ecotoxicity

Ecotoxicity (aquatic toxicity) is tested with test method number no. 201, 202 and 203 in OECD Guidelines for Testing of Chemicals or equivalent test methods.

Exemptions from the testing requirement

The following substances are exempted from testing for aquatic toxicity, biodegradability and bioaccumulability.

- Substances known to be environmentally hazardous, i.e. substances listed by the public authorities.
- Subjects with a short life under test conditions (< 1 hours for octonal / water-partition test, <1 day for all other tests, degradation products are tested as required.
- Substances that the applicant can demonstrate and not environmentally harmful.

The following are exempted from the requirement as to testing for bioaccumulability: High- molecular substances (molecular weight > 700, lowest calculated section > 9.5 Å or length > 5.5 nm).

Scientifically researched references to the literature may be used to demonstrate that the constituence substances of the chemical product fulfill the requirements.

1.3 Formaldehyde in wood based panels

Formaldehyde

For the purpose of determining the content of free formaldehyde, the most recent applicable European standard for the perforator method is to be used. This must at all times be followed by the applicable EN 120 standard until and if the method is replaced by a different EN method. Other test methods such as JIS A 1460 or similar can be used on request to the Nordic Ecolabel. It shall be reported which method is used and conversion factors shall be documented if such are used.

As a suitable chamber method for panels of wood and mineral wool, the European Standard: ENV 717 – 1 is recommended. To be followed by the EN standard applicable from time to time for reference determination of emission value. Other test methods, such as ASTM D 6007-2 or similar, may be approved by the Nordic Ecolabel. The method used must be reported and conversion factors shall be documented if such are used.

1.4 COD emissions

Test: For measuring COD-emissions to water use ISO 6060 2.nd ed 1989, NS 4748 alternatively DS 217, SFS 3020, SFS 5504, SS 028142, DIN 38409 part 41, NFT 90101, ASTM D 1252 83 or test kits that use potassium dicromate as an oxidizing agent (and with silver sulphate as a catalyst), e.g. Dr. Lange, Hack or WTW test of substances in chemical products. "Determination of the chemical oxygen demand" or equivalent.

Test frequency: In continuous production an annual average value must be used based on at least one representative daily sample per week. If new processed or internal improvements are introduced the emission level must be determined using at least 40 daily samples in succession.

Sampling: Samples of process water must be taken after external treatments and the analysis must be performed on unfiltered samples. Alternatively a sampling frequency determined by the authorities will be accepted.

1.5 Emissions to water Zinc

Test methods: EN ISO 11885 for Zinc.

Sampling frequency: Emissions to water are calculated as an annual average value and based on at least one representative daily sample per week.

Sampling: Samples of process water must be taken after exernal treatments and the analysis must be preformed on unfiltered samples. Alternatively a sampling frequency determined by the authorities will be accepted.

Appendix 2 Forms

Form 1 Overview of materials from producer

Form for overview of materials

Producer:	Signatory:
Product:	Total weight in kg:

Table 1 below shall give a general overview over which requirements that are relevant for the ecolabelled product. The weight and composition of each material can decide which requirements that apply. Applicants must fill in table 1

Table 1 Overview of materials and chapters where the requirements are specified

Material	Level	Requirement	Form	Quantity	Relevant
Wood	General	R2 – R4	2a - 2c		Yes ☐ No ☐
Wood-based panels	General (more than 5 weight %)	R5 – R8	3		Yes ☐ No ☐
	More than 10 weight %	R9 – R11	2a - 2c and 5		Yes ☐ No ☐
Chemical products	General	R12 – R16	3		Yes ☐ No ☐
Wood preservative	General	R17	3		Yes ☐ No ☐
	Not outdoors permanently	R18	3		Yes ☐ No ☐
	Outdoors permanently	R19	3		Yes ☐ No ☐
Surface treatment of wood and wood-based panels	General	R20	3		Yes ☐ No ☐
Maintenance products for wood	General	R21	3		Yes ☐ No ☐
Metal	General	R22	6		Yes ☐ No ☐
	More than 50 weight %	R23	6		Yes ☐ No ☐
Surface treatment of metals	General	R24 – R25	3 and 6		Yes ☐ No ☐
Plastic	General	R26 – R29	3 and 7		Yes ☐ No ☐
	More than 10 weight %	R30	7		Yes ☐ No ☐
Other requirements	General	R31 - R43	8		Yes ☐ No ☐

The table below shall give an overview over the following:

- All suppliers of products/materials that are a part of the product.
- Which part the product/material is a part of (for example seat, frame, board etc.).
- What type of material/product that is used (for example wood, metals, plastics, varnishes, glue etc.). If relevant, which composition the material has (for example fiberboard and plastic).
- Weight in kg for each material and weight %. The total weight for the product is given in the first table of Form 1.

Nordic Ecolabelling will also accept complete worksheets or similar from the applicant as long as all required information is given. However, Table 1 above must always be filled in.

Table 2 Overview of suppliers, product parts, weights and compositions of the products/materials

Supplier	Product part	Material/product and composition	Weight in kg	Weight %
1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				

Form 2a Wood, willow and bamboo

- Origin, traceability and certified raw material

(To be filled in by supplier or producer)

Supplier
Producer:
Product type (for example wood chips, veneer, timer, solid wood):

For documenting the wood raw material:

- Type of wood/willow/bamboo and geographical origin (country/state and region/ province):
- Copy of certificate(s) of forestry certification and type of standard:
- Proportion (%) wood from certified forestry in product:
- Copies of invoices may be used as documentation

Table 1 Overview of origin, traceability and certification

Type of wood (Latin and English names)	**Geographical origin (country, state)**	**Certification (see requirements on next page)**	**Supplier (see requirements on next page)**

Has any of the timber been surface treated with preservatives since felling? **Yes** ☐ **No** ☐

If yes:

Is the insecticide classified by the WHO as Type 1 or 1B? **Yes** ☐ **No** ☐

An overview can be found at: http:// www.who.int/ipcs/publications/pesticides_hazard/en, "The WHO recommended classification of pesticides by hazard and guidelines to classification 2009" or by contacting one of the secretariats.

☒ Attach 16 point product safety data sheet or equivalent documentation **Appendix no. _____**

Name of supplier:

(Date)	(Company)
(Authorised signatory)	(Telephone)

2b Wood, willow and bamboo

- Description and proportion of certified raw material

(To be filled in by the producer)

Documentation of the raw material:

Give a detailed description of the chain of suppliers from felling of the raw material to the producer:

_____

_____

_____

_____

Alternatively, submit a separate flow diagram showing the chain of suppliers from felling of the raw material to the producer

Table 2b: Raw materials purchased by the supplier on a yearly basis. Applies to both certified and non-certified materials

Type of raw material*	**Supplier**	**Quantity (m^3/ year)**	**Proportion (%) wood from certified forestry**
Total:			

Name of supplier:

(date)	(Company)
(Authorised signatory)	(Telephone)

Form 2c Forestry certification requirements (Chap. 1.1)

Forestry certification requirements

Wood used in the product must be certified by a third party on the basis of a current applicable forestry standard, complying with the requirements placed on standard and certification system.

The following requirements apply to standards and certification systems that are acceptable to Nordic Ecolabelling.

The standards

1) 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 agrements.

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

3) The standard must be widely accepted nationally or internationally and be developed as a part of an open process in which ecological, economic and social interests are invited to participate.

The certification system

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

The 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.

Documentation

- Copy of the forestry standard, name, address and telephone number of the organisation responsible for drafting the standard and the approval report of the certification body.
- References must be provided to persons representing parties and interest groups invited to participate in the development of the forestry standard.
- The ecolabelling organisation has the right to require the further information to be submitted with a view to assessing whether the requirements of the standard and the certification system have been met.

Nordic Ecolabelling may in some cases agree to grant a licence even if the wood used in production has not been certified in accordance with an approved forestry standard.

If so, some other form of credible documentation must be submitted showing that the timber originates in a sustainable forestry operation with requirement levels equivalent to the approved forestry standards.

Form 3, page 1 (2) Requirements applicable to chemical products

The name and area of use of the chemical product/raw material:
Manufacturer/importer of the chemical product:

Classification of chemical products

Is the product classified in accordance with the following table? Yes ☐ No ☐

Exceptions from the following classification may occur in the individual requirement.

Classification	Associated hazard symbol and R-phrases*	CLP-regulation 1272/2008*
Environmental hazard	N with R50, R50/53, R51/53 and/or R59.	H400 Very toxic to aquatic life H410 Very toxic to aquatic life with long-lasting effects H411 Toxic to aquatic life with long-lasting effects and/or EUH059 Harzardous to the ozone layer
Highly toxic	Tx (T+ in Norway) with R26, R27, R28 and/or R39	H330 fatal to inhale H310 Fatal in contact with skin H300 Fatal if swallowed and/or H370 Causes damage to organs
Toxic	T with R23, R24, R25, R39 and/or R48	H331 Toxic if inhaled H311Toxic in contact with skin H301 Toxic if swallowed H370 Causes damage to organs and/or H372 Causes damage to organs through prolonged or repeted exposure
Carcinogenic	T with R45 or R49. Or Xn with R40	H350 May cause cancer H350i May cause cancer by inhalation or H351 Suspected to cause cancer
Mutagenic	T with R46 or Xn with R68	H340 May cause genetic defects H341 Suspected to causing genetic defects
Toxic for reproduction	T with R60 and/or R61. Or Xn with R62 and/or R63	H360F May damage fertility and /or H360D May damage the unborn child H361f Suspected to damaging fertility And/or H361d Suspected to damaging the unborn child

The classification applies in accordance with the Dangerous Substances Directive 67/548/EEC with subsequent amendments and adaptations and/or the CLP regulation 1272/2008 with subsequent amendments. During a transition period, until 1st June 2015 both types of classification can be used. After the transition period only classification according to the CLP-regulation applies, see above table.

Please note that the producer is responsible for correct classification.

☒ Product safety data sheet/data sheet In accordance with current legislation in the country of application, eg Appendix II to REACH (1907/2006/EC) for each. Appendix no. _____

Formaldehyde

Does the chemical product contain free formaldehyde? Yes ☐ No ☐

If yes, specify content in weight-%: _____

Is the product a glue with new produced polymeric? Yes ☐ No ☐

Form 3, page 2 The content and additives to chemical products and materials

The declaration applies to all constituent substances.

Constituent substances are all substances in the product, including additives (e.g. pigments) in the ingredients, but not pollutants from the production of raw materials. Pollutants are traces from raw material production present in the finished product in concentrations of less than 100 ppm (0.01 weight %, 100 mg/kg), but not products that have been added to a raw material or product deliberately and for a purpose, irrespective of quantity.

Note that the product must at all times meet all mandatory requirements – an exemption provided for in a specific requirement will accordingly not constitute a general exemption from the mandatory requirements.

Does the product contain halogenated organic binding agents? (CMIT is excluded from this, please refer to statement below? Yes ☐ No ☐

Does the product contain PFOA, PFOS or compounds thereof? Yes ☐ No ☐

Does the product contain biocide chlorfenoler (their salts and esters) and dimethylfumerat? Yes ☐ No ☐

Does the product contain isothiazolin concentration exceeding 0.05 wt% or the mixture (3:1) of CMIT / MIT (5 Chloro- 2-methyl-4-isothiazolin-3-one Cas. No. 247-500-7, / 2-methyl-4-isothiazolin-3-one Cas. No . 220-239-6) exceeding 0.0015 wt%? Yes ☐ No ☐

Does the product contain bisphenol A compounds? Yes ☐ No ☐

Does the product contain phthalates? Yes ☐ No ☐

Does the product contain azidirine and polyazidirine? Yes ☐ No ☐

Does the product contain pigments/ additives based on lead, tin, cadmium, boron*, copper*, chromium VI and mercury and their comfupounds? Yes ☐ No ☐

Does the chemical product contain alkylphenols, alkylphenolethoxylates or other alkylphenol derivatives**? Yes ☐ No ☐

Does the product contain volatile organic compounds***? Yes ☐ No ☐

If yes, specify quantity in weight-%: _____

Does the product contain aromatic solvents***? Yes ☐ No ☐

If yes, specify quantity in weight-%: _____

Does the chemical product contain nano materials? Yes ☐ No ☐

For wood preservatives and maintenance products:

Does the product contain biocides? Yes ☐ No ☐

If yes, provide information on the bioaccumulability of the biocide in the form of BCF value or log KOW value: _____

Signature of producer:

Date	Company name
Signatory	Telephone

**Copper and boron should be permitted for preserving playground and park equipment left outdoors on a permanent basis (NTR class AB).*

***Alkylphenol derivatives are defined as substances that shed alkylphenols during degradation.*

****Volatile organic compounds (VOC) are defined here as volatile organic compounds with an initial boiling point that is lower than or equal to 250 °C at 0.013 kPa. VOCs are volatile organic compounds with one or more benzene rings in the molecule.*

Form 4 Overview of R-phrases and associated names

Environmentally dangerous

R50: Very toxic to aquatic organisms
R50/53: Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment
R51/53: Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment
R59: Dangerous for the ozon layer
H400: Very toxic to aquatic life
H410: Very toxic to aquatic life with long-lasting effects
H411: Toxic to aquatic life with long-lasting effects and/or EUH059 harzardous to the ozone layer
H412: Harmful to aquatic life with long-lasting effects
H413: May cause long-lasting effects to aquatic life
EUH 059: Hazardous to the ozone layer

Very toxic/toxic

R26: Very toxic by inhalation
R27: Very toxic in contact with skin
R28: Very toxic if swallowed
R39: Danger of very serious irreversible effects
R23: Toxic by inhalation
R24: Toxic in contact with skin
R25: Toxic if swallowed
R48: Danger of serious damage to health by prolonged exposure
H331: Toxic if inhaled
H311: Toxic in contact with skin
H301: Toxic if swallowed
H330: Fatal if inhaled
H310: Fatal in contact with skin
H300: Fatal if swallowed
H370: Causes damage to organs
H372: Causes damage to organs

Carcinogenic

R33: Danger of cumulative effects
R40: Limited evidence of a carcinogenic effect
R45: May cause cancer
R49: May cause cancer by inhalation
R46: May cause heritable genetic damage
R60: May impair fertility
R61: May cause harm to the unborn child
R62: Possible risk of impaired fertility
R63: Possible risk of harm to the unborn child
R68: Possible risk of irreversible effects
H350: May cause cancer
H351: Suspected of causing cancer
H340 May cause genetic defects
H341 Suspected of causing genetic defects
H360: May damage fertility. May damage the unborn child
H361: Suspected of damaging fertility. Suspected of damaging the unborn child.

Form 5 Calculation of energy consumption

Calculation of energy consumption

Energy consumption, kWh/kg panel, must encompass the primary panel production and the production of the constituent key raw materials. Key raw materials are defined as raw materials that exceed 5 weight-% of the finished product. Energy consumption during extraction of raw materials is not to be included.

The energy account for the panel production must be based on data from the handling of raw materials (incoming conveyor belt on the production line) to the finished product before surface treatment, if any. Energy consumption during surface treatment is not included.

In the case of the production of chemical products, for example adhesive, the energy accounts must be based on data for production. The energy content of the raw material must not be included in the calculation. In exceptional cases a standard value of 15 MJ/kg (solution for use) for adhesive may be used, broken down as 12 MJ/kg for fuel and 3 MJ/kg for electricity purchased from an outside supplier (4:1).

Nordic Ecolabelling uses the unit kWh per kg or m^3 for energy. However, conversion to MJ (1kWh=3.6MJ) is also possible.

Purchased electricity is defined as electricity purchased from external suppliers. Electricity generated on the premises must be added to the fuel consumption. Fuels consumption includes both purchased fuel and fuel deriving from production waste.

If the producer has surplus energy and sells this surplus in the form of electricity, steam or heat, the quantity sold must be deducted from total consumption.

The energy content of fuel must be calculated from the data given in the table below. If electrical energy is produced on site the consumption of fuel can be calculated in one of the following ways:

- The actual consumption of fuel calculated on annual basis.
- Consumption of on-site electrical energy is multiplied with 1.25

Form 5 (continued)

Theoretical energy content and emission factors

Sources: Statistics Norway: Energy statistics 1995, SFT Report 9513: Incinerators. Guidance for case officers and SFT: Emission coefficients (Audun Rosland, 1987).

4.5.1 Energy sources	**Theoretical energy content GJ/tons**	**Density[1)]**	**Theoretical energy content MWh/m³ [2)]**	**Energy content GJ/unit[3)]**	**Tons CO_2 per ton energy raw material**	**Ton CO_2 per m³ [4)]**	**Ton CO_2 per GJ**
Coal (anthracite)	28.1	-	7.8	28.1	2.42	-	0.08612
Coke (from coal)	28.5	-	7.9	28.5	3.19	-	0.11193
Wood fuel	16.8	0.5	4.7	8.4	0	0	0
Waste liquer (non-volatile)	14	-	3.9	14	0	0	0
Wood waste (dry)	16.8	-	4.7	16.8	0	0	0
Crude oil	43	0.85	10.2	36.6	3.2	2.72	0.074
Natural gas	49.2	0.85	11.6	0.042	2.75	2.34	0.056
LPG	46.1	0.51	6.5	23.5	3	1.53	0.065
Petrol	43.9	0.74	9.0	32.5	3.13	2.32	0.071
Paraffin	43.1	0.79	9.5	34.0	3.15	2.49	0.073
Light fuel oil	43.1	0.84	10.1	36.2	3.17	2.66	0.074
Diesel	43.1	0.84	10.1	36.2	3.17	2.66	0.074
Marine gas oil	43.1	0.84	10.1	36.2	3.17	2.66	0.074
Heavy crude oil	40.6	0.97	10.9	39.4	3.2	3.10	0.079

1) All figures in tonnes except for Wood Fuel, where figures are in tonnes per firm cubic meter (ton/fm³) and Natural Gas which is in kg per standard cubic meter (kg/Sm³).

2) All figures in MWh/m³, except for Natural Gas which is given in kWh/Sm³ and Coal, Coke, Wood, Fuel, Waste liquor and Waste wood which are given in MWh/ton.

3) All figures in GJ/m³ except for Coal, Coke, Waste liquor and Waste wood which are in GJ/ton, Natural Gas which is given in GJ/ton and Wood Fuel in GJ/fm³.

4) Natural Gas in kg/Sm³.

Example of a calculation using the standard value for adhesives:

A panel contains 12% adhesive (solution for use). This represents 0.12 kg of adhesive (solution for use per kilogram of panel. Applying the standard value in the calculation of energy points for adhesive results in:

0.12 kg adhesive/ kg panel x 15 MJ/ kg adhesive = 1.8 MJ/ kg panel.

Conversion to kWh per kg panel: (1.8 MJ/kg panel)/3.6 = 0.5 kWh/kg panel

Ratio (4:1) for fuel and el: 0.4 kWh fuel/kg panel and 0.1 kWh el/kg panel

Enter the values for electricity and fuel in the formula for calculating energy points (D and E) in chap. 1.3, Reg. R10 by adding the values to the values for the production of the panel. (Reference value applies per kg of panel).

Form 6 Declaration of metals

Name of product:
Producer/supplier:

Can the metal parts be separated from the other materials without the use of special tools? **Yes** ☐ **No** ☐

☒ Submit description of how this is done **Appendix no. _____**

Is the metal part plated with cadmium, chromium, nickel, zinc and their compounds? **Yes** ☐ **No** ☐

Emissions from surface treatment processes must be re-used and destroyed. The system must be closed and without emissions, with the exception of zinc where the maximum emission must not exceed:

- Zink: 0.5 mg/l

☒ Submit test results confirming compliance with the emission limits on chromium, chromium VI and nickel in PARCOM Recommendation 92/4 (Parcom/ Oscom). **Appendix no. _____**

How large a proportion of the metal raw material consists of recycled material?

Aluminium: _____

Other metals (e.g. steel): _____

☒ Report from the smelting plant documenting the proportion of recycled material. **Appendix no. _____**

The proportion of recycled material can be documented for the actual share or on an annual basis. If declared on an annual basis the melting plant, that supplies the aluminium / metal, shall declare the recycling rate. Recycled metal is defined here as both pre-consumer and post-consumer as defined by the ISO standard 14021.

Signature of producer of metal:

Date	Company name
Signatory	Telephone

Form 7 Plastics declaration

Name of product and chemical name of plastic material:
Producer/supplier:

1. Does the plastic material contain fillers and/or reinforcement? **Yes** ☐ **No** ☐

If yes, state which types and in what quantities:

_____

_____

_____

2. Can plastic parts be separated from other materials without the use of special tools? **Yes** ☐ **No** ☐

☒ Submit description of how this is done **Appendix no.** _____

3. Are plastic parts weighing more than 50 g labelled for recycling in accordance with ISO 11 469? **Yes** ☐ **No** ☐

☒ If no, state which equivalent standard has been used. **Appendix no.** _____

4. Has the surface of the plastic part been coated? **Yes** ☐ **No** ☐

5. How large a proportion of the plastic material is recycled/recovered material?

_____ %

Recycled/recovered plastic means post-consumer plastic from used products or used packaging as well as production waste from external suppliers.

☒ Attach a report on the origins of the recovered plastic. **Appendix no.** _____

Signature of producer:

Date	Company name
Signatory	Telephone