

Nordic Ecolabelling for
Window replacement



Version 1.0 – 29 November 2024 – 31 December 2029

Content

1	Environmental communication guideline for Nordic Swan Ecolabel Window replacement	4
2	What service can carry the Nordic Swan Ecolabel?	4
3	How to read this criteria document	5
4	Requirements and definitions	6
4.1	Definitions	6
4.2	General requirements	7
4.3	Circular Economy	10
4.4	New windows and installation materials	12
4.5	Quality and environmental management	13
5	Future criteria generation	15
6	Criteria version history	15
7	How to apply and regulations for the Nordic Ecolabelling	16
	Application and costs	16
	Regulations for the Nordic Swan Ecolabelling of Window replacement	16

Appendix 1: Installation materials

118 Window replacement, version 1.0, 29 November 2024

Contact information

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

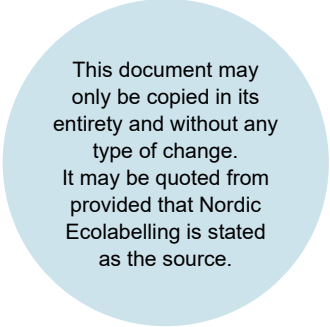
Denmark
Ecolabelling Denmark
info@ecolabel.dk
www.svanemaerket.dk

Finland
Ecolabelling Finland
joutsen@ecolabel.fi
www.ecolabel.fi

Sweden
Ecolabelling Sweden
info@svanen.se
www.svanen.se

Iceland
Ecolabelling Iceland
svanurinn@ust.is
www.svanurinn.is

Norway
Ecolabelling Norway
info@svanemarket.no
www.svanemarket.no



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

1 Environmental communication guideline for Nordic Swan Ecolabel Window replacement

A Nordic Swan Ecolabel window replacement service contributes to a circular economy and reduced climate impact. It meets strict requirements for the whole life cycle of the service, including recycling of the glass in existing windows and doors, mapping of hazardous materials, handling of construction waste and the quality of the window installation. The service also ensures that the new installed windows, to a high degree are certified with Nordic Swan Ecolabel thereby ensuring all the environmental requirement set in the criteria for windows, such as a high energy performance.

A Nordic Swan Ecolabel window replacement service:

- Contributes to circularity, reduced depletion of virgin resources and significantly reduced climate impact as the float glass in existing windows and doors is recycled and used for new window glass.
- Ensures that harmful substances in the existing windows/doors and installation materials are identified and handled correctly.
- Replaces existing windows with at least 80% Nordic Swan Ecolabel windows to ensure high energy performance and low environmental impact*.
- Sorts the main fractions of waste – generated during dismantling and installation – for recycling.
- Meets quality requirements for the installation of the new windows.
- Meets strict chemical requirements for installation materials. Substances harmful to health and the environment are restricted and/or excluded. This applies to construction materials (e.g. insulation, tapes and sealing strips) and chemical building products such as sealants.

** Excluding Windows with the following special requirements: Fire, noise, 2-glas products for holiday homes, laminated glass and hardened glass.*

2 What service can carry the Nordic Swan Ecolabel?

Companies that offer window replacement on the Nordic market can be Nordic Swan Ecolabelled. The service is not restricted to certain building types. The clients will typically be private individuals (B2C) or professional building owners (B2B).

The criteria mainly cover replacement of windows and window doors covered by the harmonized product standard EN 14351-1 but can also include replacement

of other types of window glass products not covered by EN14351-1 (e.g. fire-resistant glass).

The windows replacement service must include the following:

- The entire process from initial inspection of the existing windows to the final approval of the installation of the new windows.
- The service must include all window replacements conducted by the company.

The following are not included and cannot be Nordic Swan Ecolabelled:

- Renovation of existing windows where the glass is not sent for material recycling to new float glass.
- Replacement conducted by private individuals.
- Services that do not take full responsibility of the entire process from first customer meeting to final installation. This includes taking responsibility for, that the glass in the existing windows is sent for material recycling for new float glass.

3 How to read this criteria document

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

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

- ☒ Enclose
- ↑ Upload
- ↓ Download
- 📄 State data in electronic application
- 🔍 Requirement checked on site

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

4 Requirements and definitions

4.1 Definitions

The first time a term is used in the document, it is written in bold italics or with a reference to this definition list.

Term in background and criteria documents	Definition
Chemical products	A chemical product is a substance or a mixture of two or more substances, in liquid, gaseous or solid form, which are used on a construction site or by a manufacturer of prefabricated building components. Chemical products both for indoor and outdoor use are covered by the requirements. Nordic Ecolabelling does not set chemical requirements for cement or concrete, nor for metal alloys such as steel or brass.
Construction products	Products used in the construction of buildings, for example wall elements, flooring, power cables, doors, thermal insulation etc. In EU regulation No 305/2011, a construction product is defined as “any product or kit which is produced and placed on the market for incorporation in a permanent manner in construction works or parts thereof and the performance of which has an effect on the performance of the construction works with respect to the basic requirements for construction works”.
Fire resistant glass	Specially treated glass to control the spread of fire, vapours, and smoke. Typically used in doors and windows.
Float glass	A type of flat glass made by pouring molten glass on a bed of molten metal to get a consistent flatness and surface quality. Typically used in windows.
Foam glass	A porous, light weight and high strength building material with very good thermal and acoustic insulating properties.
Impurities in chemical products	Residuals, pollutants, contaminants etc. from production, incl. production of raw materials that remain in the raw material/ingredient and/or in the chemical product in concentrations of less than 1000 ppm (0.100 w-%, 1000 mg/kg) in the chemical product. Examples of impurities are residues of the following: Residues or reagents incl. residues of monomers, catalysts, by-products, scavengers, and detergents for production equipment and carry-over from other or previous production lines.
Ingoing substances	<u>Chemical products:</u> All substances in the chemical product regardless of amount, including additives (e.g., preservatives and stabilizers) in the raw materials. Substances known to be released from ingoing substances (e.g., formaldehyde, arylamine, in situ-generated preservatives) are also regarded as ingoing substances. <u>Construction products:</u> All substances in the construction product that are present in concentrations higher than 100 ppm (0.010 w-%, 100 mg/kg).
Insulating glass	Consists typically of 2, 3 or 4 panes of glass separated by a space filled with gas (argon, xenon for example) that give the product good properties to reduce heat transfer through the buildings window.
Laminated glass	A type of safety glass that consists of 2 sheets of float glass held together by a thin polymer in the middle. In case of shattering the glass is kept in place by the polymer and prevents to break into sharp large pieces. Typically, it is used for curtain walls, windscreens, and photovoltaics. In some countries (e.g. Sweden) laminated glass is typically present in doors and windows situated below 80 cm from floor level.
Nanomaterial	Nanomaterials/-particles are defined according to the EU Commission Recommendation on the Definition of Nanomaterial (2022/C 229/01): 'Nanomaterial' means a natural, incidental, or manufactured material consisting of solid particles that are present, either on their own or as identifiable constituent particles in aggregates or agglomerates, and where 50 % or more of these particles in the number-based size distribution fulfil at least one of the following conditions: (a) one or more external dimensions of the particle are in the size range 1 nm to 100 nm; (b) the particle has an elongated shape, such as a rod, fibre or tube, where two external dimensions are smaller than 1 nm and the other dimension is larger than 100 nm; (c) the particle has a plate-like shape, where one

Term in background and criteria documents	Definition
	external dimension is smaller than 1 nm and the other dimensions are larger than 100 nm.
Remediation contractor	Resolves issues related to contamination, environmental hazards, or structural problems on a construction site.
Window doors	Constructed as a window, which extends to floor level and allows access or passage for persons. Can be partially or fully glazed like balcony and terrace doors.
Window frame	Structural support that holds the window system in place and surrounds the glass.
Window joint	Connection between window frame and wall, both chemical and mechanical connection methods.
(Window) sealant	Chemical substance used to close cracks and gaps around the window to tighten against water and wind.

4.2 General requirements

O1 Description of the service

The licensee must account for the following:

1. General description of the business:
 - a. Customer types, size and share of B2B and B2C
 - b. Number of employees
 - c. Annual revenue
 - d. Business locations
 - e. Primary operations of the company; window replacement, renovation services, window production etc.
 - f. Total number of windows and window doors replaced the last financial year.
2. Process description of the window replacement service from the first customer contact to the final approval of the window replacement.
3. Division of responsibilities for the different phases of the service described in 2 above.
4. Description of the use of subcontractors and the services provided by these.

Description of 1-4 above.

O2 Measurement of new windows and doors

The licensee must conduct all measurements for the new windows and doors prior to replacement.

A procedure for training of personnel and routine for conducting correct measurements for windows and window doors must be provided.

Procedure for conducting measurements of windows and doors.

O3 Identification of hazardous materials

The licensee must have a procedure that ensures that any hazardous materials are identified in the window replacement service. This must be done in accordance with relevant national legislation and guidelines and in accordance with the list of substances that are considered harmful to human health and the

environment in commission decision 2000/532/EC. This includes materials containing PCB, asbestos, chloroparaffins etc. above relevant threshold limits.

The method used can include both analysis of samples and e.g. risk assessments based on reports/surveys that have determined the presence of certain substances (PCB, asbestos, chloroparaffins etc.) for the material in question based on e.g. production year or producer. If there is suspicion of hazardous substances and the content cannot be determined by the methods mentioned above, the material in question must be handled as hazardous waste.

Option A (often B2B customers) or B (often B2C customers) must be fulfilled for all replacements:

A. Window replacements covered by an existing hazardous materials survey and report.

When the existing windows, window frames and the areas around the windows (e.g. window joint, insulation material, wooden lists etc.) are covered by an existing hazardous material survey and report, such a report can be used as verification of the requirement. The report must be no older than 3 years from the date of application. The extent of the assessment and report must be in accordance with national legislation and 2000/532/EC .

B. Hazardous materials screening

A hazardous material screening must be performed, that at least covers the existing windows, window frames and the areas around the windows (e.g. window joint, insulation, wooden lists etc.). The hazardous material screening must identify materials categorized as hazardous waste according to national legislation/guidelines and 2000/532/EC (e.g. containing PCB, asbestos, chloroparaffins etc).

The person conducting the hazardous material screening must be qualified and have relevant education for identification of hazardous substances (e.g. PCB, asbestos, chloroparaffins etc.) relevant for the existing windows and associated installation materials. Educational programs must be approved by Nordic Ecolabelling.

Due to the precautionary principle, material samples must always be taken of the window sealant between window frame and the wall. In addition, caulked windows must always be analysed for asbestos. When analysis of material samples is performed, the methods for representative sampling and testing must be defined by an accredited laboratory.

The result of the hazardous material screening must be documented in a case specific report that accounts for all the findings and results from any analyses.

The report must at least include the following:

1. Responsible for the report.
2. Date of the report.
3. Estimated age of the windows and estimated installation year
4. Results of performed material samples (e.g. window sealant) and analyses.

5. A list of the materials that are categorized as hazardous waste, according to national legislation and included information on:
 - a. The location identified by description, photographs, or drawings.
 - b. A description of measures for protecting the environment and human health
6. Overall conclusion of the screening

- Procedure describing how window replacement cases are ensured to comply with either option A or B. This includes both reporting and approval of educational programme.
- A: Hazardous material survey reports, from relevant projects, must be shown upon request.
- B: Reports documenting the requirement must be shown upon request.

O4 Identification and marking of window glass

A procedure for correct identification and marking of glass must be available for all personal at the licensee.

The licensee must have the knowledge to identify windows and window doors suitable for float glass recycling. All personal working with dismantling the windows and window doors must have education* to:

- Identify different types of glass (laminated, coloured, fire resistant, wired glass etc.)
- Mark windows and window doors according to the type of glass and risk of hazardous substances (based on the results from O3 or other supplementary information).

Proof of education (e.g. diploma) for all relevant employees must be stored and shown upon request.

* *Glascentrums (SE) "Utbildning Glasinventerare" and the Danish glazier's education is considered as sufficient education.*

- A procedure for correct identification and marking of glass.
- Procedure ensuring that all relevant personal is educated according to the requirement.

O5 Handling of identified hazardous materials

The licensee must provide a procedure describing how hazardous materials are handled when they are identified in O4.

When remediation work on site is necessary due to findings of hazardous materials in O4 it must be handled by internal or external personnel qualified to conduct remediation work within the parameters of the building type and the complexity in question

The remediation work must be documented (e.g. in a journal / logbook or remediation report) and must as a minimum account for the type and amount of hazardous waste and documents how the hazardous materials have been removed or handled.

- ☒ Procedure describing how hazardous materials identified in O3 and windows marked as contaminated in O4 are handled.
- ☒ Education for the personnel conducting remediation work.
- ☒ Upon request: Remediation journals/logbooks must be available for relevant replacement cases.

O6 Moisture and ventilation assessment

The licensee must have a procedure for informing the customer about the potential effects of the window replacement on moisture and ventilation in the building.

When relevant recommendations must be given on relevant compensatory measures (e.g. adjustment of the ventilation system, installation of fresh air valves, recommendation to consult an authorized ventilation company etc).

- ☒ Procedure for informing the customer about moisture and ventilation regarding the window replacement.
- ☒ Upon request examples of the recommendations given can be required.

4.3 Circular Economy

O7 Storing and packaging of windows and window doors

All windows and window doors that are dismantled in the project must be safely stored and packed in order not to be damaged during storage and transport for recycling. The licensee must have written instructions on the following:

- Information on how windows and window doors are secured for safe transport on pallets or alternative equipment provided by the recycling company.
- Information on labelling/markings of the windows and window doors according to the recycling companies' instructions, see O3.
- Instructions on where and how the windows and window doors can be stored to ensure that they are easily accessible for the recycling companies, depending on the type of vehicles.

- ☒ Instructions for sorting, storage, and packaging according to the bullets above.

O8 Recycling of float glass

A. Glass suitable for recycling into new float glass

All float glass handled by the licensee and identified as suitable for recycling into new float glass (see requirement O4) must be sent for recycling to new float glass.

It must be documented/confirmed that minimum 90% of the amount of float glass sent from the licensees' waste contractor to the glass manufacturer is used for manufacturing of new float glass.

The following must be documented by the licensee:

- An agreement/contract between the licensee and a waste contractor who has a facility that guarantees that the window glass is prepared as raw material for new float glass.
- Documentation/confirmation that the licensee's waste contractor has an agreement with a float glass producer that uses minimum 90% of the float glass sent from the waste contractor for manufacturing of new float glass.

If windows are classified as hazardous waste the waste contractor handling and dismantling the windows must have a permit to handle hazardous waste.

B. Glass not suitable for recycling into new float glass

Float glass identified as not suitable for recycling into new float glass must be sent for recycling to other forms of glass products such as glass wool, glass foam, or container glass.

Fire resistant glass, wire glass and windows contaminated with PCB or fluoroacetate is exempted from this requirement.

The following must be documented by the licensee:

- Confirmation that the licensee's waste contractor has agreements with other companies or facilities that uses the window glass for other recycling products (glass wool insulation, container glass, glass foam). A list of the companies receiving material must be provided.

Annual reporting

The following must be documented in an annual report from the waste contractor(s):

- Total amounts of float glass received by the waste contractor from the licensee, with statistics about the share suitable for float glass recycling and other forms of recycling.
- Amounts of float glass sent by the waste contractor for manufacturing of new float glass and other recycling.
- Signed declaration from waste contractor that 90% of the amount of float glass identified as suitable for float glass recycling received from the licensee is prepared for new float glass production and sold back to a float glass producer.
- Documentation/confirmation/signed declaration from the float glass producer that minimum 90% of the float glass received from the waste contractor is used for manufacturing of new float glass.

- Documentation in accordance with the two bullets in part A.
- Documentation in accordance with the bullet in part B.
- Annual report from the waste contractor according to the bullets a-d in the requirement.

09 Waste management

This requirement applies to construction waste other than windows and doors.

The licensee must have a waste management routine that ensures the following:

- Non-hazardous waste, generated during the dismantling and installation of windows, must as minimum be sorted in the fractions wood, plastic, aluminium, mineral wool and waste for incineration.
Note: B2B projects, that are part of a larger renovation project, can use the established waste sorting system on the construction site if the minimum of fractions is fulfilled. Documentation for this must be archived by the licensee and shown upon request.
- Hazardous waste must be stored on site in a secure way and transported by waste contractors with accurate permit for transportation. If hazardous waste is intermediate stored an accurate permit for storage is needed. See also O5.

It is accepted that some fractions are sorted by the waste management company after collection of the waste, if this can be documented in a waste report.

- The licensee's routines for sorting and storage of construction waste (including hazardous waste when relevant).
- Agreement with waste contractor, including attestation on permit for transportation of hazardous waste if relevant.

4.4 New windows and installation materials

O10 Nordic Swan Ecolabelled windows

On a yearly basis a minimum level of 80% of the number of replaced windows and window doors (e.g. balcony and terrace doors), covered by the harmonized product standard EN 14351-1, must be Nordic Swan Ecolabelled.

Windows with the following special requirements can be excluded from the calculation: Fire, noise, 2-glas products for holiday homes, laminated glass and hardened glass.

This must be documented in an annual report to Nordic Ecolabelling containing the following information:

- Product name
- Producer(s)
- Licence number
- Annual share of Nordic Swan Ecolabel windows and doors in the service

At the time of application, the requirement can be documented by contracts with producers if an annual report complying with the requirement is not available upon certification.

- At the time of application: Annual statistics or by contracts with window producers.
- Annual report showing compliance with the requirement.

O11 List of installation materials

The licensee must deliver a list with all installation materials used in the service covered by the requirement O12. As a minimum the list must contain information about the following:

- Product name

- Product type and/or use
- Name of producer

The list of materials must be always updated and be presented to Nordic Ecolabelling upon request. New installation materials cannot be used without approval from Nordic Ecolabelling.

- ☒ List of installation materials.
- ☒ List of installation materials is compared to the licensee's stock of materials and the purchasing statistics.

O12 Chemical products and construction products in installation

Chemical products and construction products used in the installation and listed in O11 must comply with the requirements in Appendix 1. The requirements are aligned with the following requirements in the criteria for 089 New Buildings generation 4.

The products used must be documented in Nordic Ecolabelling's SCDP (Supply chain declaration portal).

Nordic Swan Ecolabelled or EU Ecolabelled products can be used without any further documentation.

The requirements in Appendix 1 are aligned with the following requirements in the criteria for 089 New Buildings generation 4 or later (the mentioned O-numbers is referring to 089 New Buildings generation 4): O14 Classification of chemical products, O15 CMR substances, O16 Preservatives in indoor paint and indoor varnish, O17 Preservatives in other chemical products intended for indoor use, O18 Prohibited substances, O19 Nanoparticles in chemical products and O25 Excluded substances in construction products, construction goods and materials.

Login to the SCDP is only provided for the licensee and not for e.g. suppliers or subcontractors.

- 📄 List of approved chemical products and construction products in Nordic Ecolabelling's SCDP.

4.5 Quality and environmental management

O13 Quality control of the installation

The licensee must have a self-monitoring system to ensure the quality of the installation. This includes control of air tightness, fixing of the windows, properly performed insulation, control of rain density, noise level (when a requirement from the end customer), and fire safety when relevant.

The following must be accounted for:

- A procedure for the installer to check the quality of the installation.
- A procedure for the supervisor's control of the installation work. As a minimum visible work must be checked. On projects larger than 50 window replacements a random sample control is accepted.
- A procedure for annual conduction of thermography of minimum three random window replacement projects. The investigations must be done in accordance with ISO 6781-1:2023 and can be conducted by internal or

external expert with minimum three years' experience in building thermography.

The results of the quality controls must be stored for a minimum of 5 years and must be shown to Nordic Ecolabelling upon request.

- A procedure for the installer to check the installation.
- A procedure for the supervisor's control of the installation work.
- Procedure for conduction of yearly thermography measurements, including documentation for the expert's competence (CV)
- Upon request: Results of controls performed by installer/supervisor and thermography.

O14 Warranty

The licensee must provide a warranty of at least:

- 3-year on installation.
- 10-year glass against condensation between glass.
- 10-year functional guarantee on the function of the window and window door.
- 10-year against rot damage in the wooden parts of the window and window door

The warranties and the warranty conditions must be published on the website of the licensee.

The warranty periods above are often associated with warranty conditions such as abnormal use, incorrect installation or if the products have been exposed to abnormal loads.

For the Nordic Swan Ecolabelled windows, the bullets 2-5 are already covered by the requirements for Nordic Swan Ecolabelled Windows and doors.

- A copy of the warranty or information on the manufacturer's website, that states the terms and conditions of the product guarantee.

O15 Annual reporting

The licensee must conduct an annual follow up of the following requirements:

- O8 Recycling of float glass
- O10 Ecolabelled windows

Any deviations must be reported in accordance with O17.

The result of the annual follow-up must be ready before the 1st of April every year and reported to Nordic Ecolabelling upon request. For details, see the respective documentation requirements.

- Annual report demonstrating compliance with O8 and O10.

O16 Information and training of personnel

Employees involved in the construction process, including supervisors, site managers, project leaders, procurement manager, subcontractors etc., must have the relevant knowledge to ensure fulfilment of the requirements.

The routines for the training and information programme must at least include the following:

- Content and scope of the training/information, depending on the participant's role.
 - Frequency of the training/information.
 - Division of responsibilities for the information/training.
- Routine in the quality management system and training programme.
- List of participants that have completed the training programme must be available.

O17 Planned changes and non-conformities

Planned changes and unforeseen non-conformities affecting Nordic Ecolabelling's requirements must be reported to Nordic Ecolabelling immediately. This must be done in accordance with the [licensee's commitment](#).

- Routine(s) describing how planned changes and unforeseen nonconformities will be handled.
- In the event of changes or unforeseen nonconformities: Written report on the change or non-conformity.

O18 Customer complaints

The licensee must guarantee that the quality of the Nordic Swan Ecolabel service does not deteriorate during the validity period of the licence. Therefore, the licensee must have a documented and dated routine for handling of customer complaints.

The licensee must keep an archive over customer complaints.

- Routine for handling and archiving customer complaints.

5 Future criteria generation

The following topics are probable to be assessed in next generation of the criteria.

- Transportation performed in the service
- Share of recycled glass in new windows
- Stricter waste sorting with multiple fractions
- Setting threshold limit for the share of float glass that goes to manufacturing of new float glass.
- Increasing the share of Nordic Swan Ecolabelled windows and exterior doors.
- Evaluate the potential for setting stricter requirements on windows and exterior doors with special properties (fire, noise etc.)

6 Criteria version history

Nordic Ecolabelling adopted version 1.0 of the criteria for Nordic Swan Ecolabel Window replacement on 29th of November 2024. The criteria are valid until 31st of December 2029.

7 How to apply and regulations for the Nordic Ecolabelling

Application and costs

For information about the application process and fees for this product group, please refer to the respective national web site. For contact information see first in this document. The application consists of an application form/web form and documentation showing that the requirements are fulfilled.

Licence validity

The Nordic Swan Ecolabel licence is valid providing the criteria are fulfilled and until the criteria expire. The validity period of the criteria may be prolonged or adjusted, in which case the licence is automatically prolonged, and the licensee informed.

Revised criteria shall be published at least one year prior to the expiry of the present criteria. The licensee is then offered the opportunity to renew their licence.

On-site inspection

In connection with handling of the application, Nordic Ecolabelling normally performs on-site inspection visit/-s to ensure adherence to the requirements. For such an inspection, data used for calculations, original copies of submitted certificates, test records, purchase statistics, and similar documents that support the application must be available for examination.

Queries

Please contact Nordic Ecolabelling if you have any queries or require further information. See contact info first in this document. Further information and assistance (such as calculation sheets or electronic application help) is available. Visit the relevant national website for further information.

Follow-up inspections

Nordic Ecolabelling may decide to check whether the licensee fulfils Nordic Ecolabelling requirements during the licence period. This may involve a site visit, random sampling, or similar test. The licence may be revoked if it is evident that licensee does not meet the requirements.

Regulations for the Nordic Swan Ecolabelling of Window replacement

To easily identify Nordic Swan Ecolabel services, the licence number and a descriptive sub text shall always accompany the Nordic Swan Ecolabel.

The descriptive sub text for 118 Window replacement is: Nordic Swan Ecolabel Window replacement.

More information on graphical guidelines, regulations and fees can be found at www.nordic-swan-ecolabel.org/regulations

Appendix 1 Installation materials

This Appendix show all the requirements that must be meet for all chemical products and construction products.

The requirements are directly aligned with the following requirements in the criteria for Nordic Swan Ecolabel New Buildings (089, generation 4):

- O14 Classification of chemical products,
- O15 CMR substances
- O16 Preservatives in indoor paint and indoor varnish
- O17 Preservatives in other chemical products intended for indoor use,
- O18 Prohibited substances,
- O19 Nanoparticles in chemical products
- O25 Excluded substances in construction products, construction goods and materials.

All materials must be documented in Nordic Ecolabelling's supply chain declaration portal (SCDP).

The following are not subject to any requirement:

- Builders' hardware (e.g., locks, handles, hole plates and hinges).
- Nails, screws, nuts, bolts, washers and similar fixings and fasteners.
- Palletising trays, plastic spacers, ground spacers, inflow and outflow pipes for white goods and similar items
- Temporary products and structures used in the construction but later removed. E.g. plastic film temporarily used for weather protection or sealing.

The following sections show the material requirements for the service:

Chemical products

A chemical product is a substance or a mixture of two or more substances, in liquid, gaseous or solid form, which are used on a construction site or by a manufacturer of prefabricated building components.

Chemical products for both indoor and outdoor use are covered by the requirements. The requirements in the criteria document and accompanying appendices apply to all ingoing substances in the chemical product. Impurities are not regarded as ingoing substances and are exempt from the requirements. Ingoing substances and impurities are defined in the "Definitions section".

Classification of chemical products

Chemical products must not be classified according to Table 1.

Table 1 Classification of the product

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

The classifications in the table concern all classification variants. For example, H350 also covers classification H350i.

Exemptions:

- Naphtha-based primers and adhesives classified H411 for outdoor use.
- Finland: Classifications H351 and H362 for spray polyurethane foams used in element factories and at construction sites for sealing of windows and balcony doors when temperature is below 5 °C.
- ☒ Declaration from the manufacturer of the chemical product, in accordance with Appendix 6 in the criteria for New Buildings 089 generation 4.
- ☒ Safety data sheet in accordance with Annex II to REACH (Council Regulation (EC) no. 1907/2006) for all chemical products.

CMR substances (Chemical products)

Chemical products, used in the installation, must not contain any ingoing substances classified as carcinogenic, mutagenic or reprotoxic according to CLP Regulation 1272/2008, see Table 2 below.

Table 2 Non-approved classifications of ingoing substances in chemical products according to CLP Regulation 1272/2008.

Classification of ingoing substances CLP Regulation 1272/2008		
Classification	Hazard class and category	Hazard code
Carcinogenicity	Carc. 1A or 1B	H350
	Carc. 2	H351
Germ cell mutagenicity	Muta. 1A or 1B	H340
	Muta. 2	H341

Reproductive toxicity	Repr. 1A or 1B Repr. 2 Lact.	H360 H361 H362
-----------------------	------------------------------------	----------------------

The classifications in the table concern all classification variants. For example, H350 also covers classification H350i.

Exemptions:

- Glyoxal (CAS no 107-22-2) classified H341 ≤ 100 ppm (0.01% by weight) in the final product if the pH value in the final product is higher than pH 8.
 - TiO₂ (CAS no 13463-67-7) classified H351 inhalation.
 - Trimethylolpropane (CAS no 77-99-6) self-classified H361 up to ≤ 5000 ppm (0.5% by weight) in the final product.
 - Dibutyltin (DBT) compounds and dioctyltin (DOT) compounds in sealing products ≤ 5000 ppm (0.5% by weight) in the final product.
 - Sebacate compounds ≤ 5000 ppm (0.5% by weight) used as stabilizers and UV-protection in SMP-based sealants, joints and adhesives. Time-limited exemption that applies until 2025-12-30.
 - Finland: 4,4'-methylenediphenyl diisocyanate, isomers and homologues (CAS no. 9016-87-9) classified as Carc. 2; H351 in spray polyurethane foams used at construction site for sealing of windows and balcony doors when temperature is below 5 °C.
- Declaration from the manufacturer of the chemical product, in accordance with Appendix 6 in the criteria for New Buildings 089 generation 4.
- Safety data sheet in accordance with Annex II to REACH (Council Regulation (EC) no. 1907/2006) for all chemical products.

Preservatives in indoor paint and indoor varnish

Only preservatives compliant with PT 6 (in-can) and PT 7 (dry-film) according to Regulation (EU)528/2012 (The Biocidal Products Regulation) can be used.

The amount of preservative/combination of preservatives in indoor paint and indoor varnish is limited according to Table 3 and Table 4.

If the specific concentrations limit (SCL) is changed in accordance with CLP Regulation 1272/2008 Annex VI the limits below will also change accordingly.

For tinting systems, a worst-case calculation must be performed for the colour with most tinting paste and the base paint with highest content of preservative and isothiazolinone compounds.

Table 3 Concentration limits for preservatives totally

Product type	Preservatives total
Paints, varnishes, base paints with tinting paints etc. for indoor use.	900 ppm (0.09% w/w)
Wet room paint specifically	1600 ppm (0.16% w/w)

Table 4 Concentration limits for specific compounds

Preservatives	Concentration limit
Isothiazolinone compounds in total*	600 ppm (0.06% w/w)
BIT (CAS no. 2634-33-5)	500 ppm (0.05% w/w)
CIT/MIT (CAS no. 55965-84-9)	15 ppm (0.0015% w/w)
MIT (CAS no. 2682-20-4)	15 ppm (0.0015% w/w)
OIT (CAS no. 26530-20-1)	15 ppm (0.0015% w/w)

* Note that dithio-2,2'-bis-benzmethylamide (DTBMA) is to be included in the total amount of isothiazolinones.

- Declaration from the manufacturer of the chemical product, in accordance with Appendix 6 in the criteria for New Buildings 089 generation 4.

Preservatives in other chemical products intended for indoor use

Only preservatives compliant with PT 6 (in-can) and PT 7 (dry-film) according to Regulation (EU)528/2012 (The Biocidal Products Regulation) can be used.

The amount of preservative/combination of preservatives in other chemical products for indoor use is limited according to Table 5.

If the specific concentrations limit (SCL) is changed in accordance with CLP Regulation 1272/2008 Annex VI the limits below will also change accordingly.

Table 5 Concentration limits for preservatives in other chemical products for indoor use.

Preservatives	Concentration limit
Isothiazolinone compounds in total*	600 ppm (0.06%w/w)
BIT (CAS no. 2634-33-5)	500 ppm (0.05% w/w)
CIT/MIT (CAS no. 55965-84-9)	15 ppm (0.0015% w/w)
MIT (CAS no. 2682-20-4)	15 ppm (0.0015% w/w)
OIT (CAS no. 26530-20-1)	15 ppm (0.0015% w/w)
IPBC (CAS no. 55406-53-6)	2000 ppm (0.2% w/w)
Bronopol (CAS no. 52-51-7)	500 ppm (0.05% w/w)

* Note that dithio-2,2'-bis-benzmethylamide (DTBMA) is to be included in the total amount of isothiazolinones.

- Declaration from the manufacturer of the chemical product, in accordance with Appendix 6 in the criteria for New Buildings 089 generation 4.

Prohibited substances (Chemical products)

The following substances must not be an ingoing substance in chemical products used in the installation:

- Substances categorised as Substances of Very High Concern (SVHC) and included on the EU Candidate List.
- Substances evaluated by the EU to be persistent, bioaccumulative, and toxic (PBT) or very persistent and very bioaccumulative (vPvB), in accordance with the criteria in Annex XIII of REACH.
- Endocrine disruptors: Substances on the EU member state initiative "Endocrine Disruptor Lists", List I, II and III, see the following links:
 - <https://edlists.org/the-ed-lists/list-i-substances-identified-as-endocrine-disruptors-by-the-eu>
 - <https://edlists.org/the-ed-lists/list-ii-substances-under-eu-investigation-endocrine-disruption>
 - <https://edlists.org/the-ed-lists/list-iii-substances-identified-as-endocrine-disruptors-by-participating-national-authorities>

A substance that is transferred to one of the corresponding sublists called "Substances no longer on list", and no longer appears on any of Lists I–III, is no longer excluded. The exception is those substances on sublist II which were evaluated under a regulation or directive that does not have provisions for identifying EDs (e.g., the Cosmetics Regulation, etc.). For those substances, ED properties may still have been confirmed or suspected. Nordic Ecolabelling will evaluate the circumstances case-by-case, based on the background information indicated in sublist II.

In addition, the following individual substances and substance groups are prohibited or restricted. There may be an overlap between the substances listed below and substances categorised above.

- Short-chain chlorinated paraffins (C10-C13) and medium-chain chlorinated paraffins (C14-C17).
- Perfluoroalkyl and polyfluoroalkyl substances (PFASs)
- Alkylphenols, alkylphenol ethoxylates (APEO) and other alkylphenol derivatives (APD).
- Brominated flame retardants.
- Phthalates (Esters of phthalic acid (orthophthalic acid / phthalic acid /1,2- benzene dicarboxylic acid).
- Bisphenol A (CAS no. 80-05-7), bisphenol S (CAS no. 80-09-1) and bisphenol F(CAS no. 620-92-8).
- The heavy metals lead, cadmium, arsenic, chromium (VI), mercury and their compounds.
- Volatile aromatic hydrocarbons (VAH) >1% by weight.
- Organotin compounds.

Exemptions:

- Primers and adhesives for outdoor use may contain up to 20% by weight of VAH.
- Dibutyltin (DBT) compounds and dioctyltin (DOT) compounds in sealing products \leq 5000 ppm (0.5% by weight) in the final product.
- ☒ Declaration from the manufacturer of the chemical product, in accordance with Appendix 6 in the criteria for New Buildings 089 generation 4.
- ☒ Safety data sheet in accordance with Annex II to REACH (Council Regulation (EC) no. 1907/2006) for all chemical products.

Nanoparticles in chemical products

Nanomaterials/-particles (see Definitions) must not be added or be present in chemical products. Nanomaterials/-particles are defined according to the EU Commission Recommendation on the Definition of Nanomaterial (2022/C 229/01) (see Definitions).

The following are exempted from the requirement:

- Pigments*
- Naturally occurring inorganic fillers**
- Synthetic amorphous silica***
- Ground Calcium Carbonate (GCC) and precipitated Calcium Carbonate (PCC)
- Polymer dispersions

** This exemption does not apply to pigments added for other purposes than imparting colour. Nano-titanium dioxide is not considered to be a pigment and is therefore not exempted from the requirement.*

*** This exemption applies to fillers covered by Annex V, item 7 of REACH.*

**** This applies to unmodified synthetic amorphous silica. Chemically modified colloidal silica can be included in the products if the silica particles form aggregates in the final product. Any surface treatment of nanoparticles must fulfil requirement for Classification of chemical products and requirement Prohibited substances.*

- ☒ Declaration from the manufacturer of the chemical product, in accordance with Appendix 6 in the criteria for New Buildings 089 generation 4.

Excluded substances in construction products, construction goods and materials

The requirement applies to the following product categories:

1. Sealing products, including membranes, tape and sealing collars on walls, foundation, and roofing, which are not classified as chemical products.
2. Thermal, acoustic and technical insulation.
3. Interior and exterior building panels. Does not include panels of solid wood, laminated timber, veneer, OSB, plywood, MDF/HDF, chipboard, HPL, CPL and compact laminates.
4. Wood plastic composite (WPC)

5. Plastic coverings for floors, ceilings, and walls for interior use.

In the construction products and materials mentioned above, the following substances must not be an ingoing substance in the product. Ingoing substance means all substances in the construction product that are present in concentrations higher than 100 ppm (0.010 w%, 100 mg/kg).

- Substances on the REACH Candidate list of SVHC
- Substances evaluated by the EU to be persistent, bioaccumulative, and toxic (PBT) or very persistent and very bioaccumulative (vPvB), in accordance with the criteria in Annex XIII of REACH.
- Substances classified as carcinogenic, mutagenic, or toxic for reproduction (CMR) Category 1A or 1B.
- Endocrine disruptors: Substances on the EU member state initiative "Endocrine Disruptor Lists", List I, II and III, see the following links.
 - <https://edlists.org/the-ed-lists/list-i-substances-identified-as-endocrine-disruptors-by-the-eu>
 - <https://edlists.org/the-ed-lists/list-ii-substances-under-eu-investigation-endocrine-disruption>
 - <https://edlists.org/the-ed-lists/list-iii-substances-identified-as-endocrine-disruptors-by-participating-national-authorities>

A substance that is transferred to one of the corresponding sublists called "Substances no longer on list" and no longer appears on any of Lists I–III, is no longer excluded. The exception is those substances on sublist II that were evaluated under a regulation or directive that does not have provisions for identifying EDs (e.g., the Cosmetics Regulation, etc.). For those substances, ED properties may still have been confirmed or suspected. Nordic Ecolabelling will evaluate the circumstances case-by-case, based on the background information indicated in sublist III. In addition, the following individual substances and substance groups are prohibited or restricted. There may be an overlap between the substances listed below and substances categorised above.

- Short-chain chlorinated paraffins (C10-C13) and medium-chain chlorinated paraffins (C14-C17).
- Perfluoroalkyl and polyfluoroalkyl substances (PFASs)
- Alkylphenols, alkylphenol ethoxylates (APEO) and other alkylphenol derivatives (APD).
- Brominated flame retardants.
- Phthalates (Esters of phthalic acid (orthophthalic acid / phthalic acid /1,2-benzene dicarboxylic acid).
- The heavy metals lead, cadmium, arsenic, chromium (VI), mercury and their compounds.
- Bisphenol A (CAS no. 80-05-7), bisphenol S (CAS no. 80-09-1) and bisphenol F(CAS no. 620-92-8).

- Boric acid, sodium perborate, perboric acid, sodium borate (borax) and any other boron compounds classed as carcinogenic, mutagenic or reprotoxic in category 1A/1B/2/Lact.
- Organotin compounds.
- ☒ Declaration from the manufacturer of the construction product, construction goods or construction material in accordance with Appendix 8 in the criteria for New Buildings 089 generation 4.
- ☒ Construction product declaration or corresponding if available for the product.