

Nordic Ecolabelling for
Chemical Building products



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Content

1	What to communicate about a Nordic Swan Ecolabel Chemical building product	4
2	What can carry the Nordic Swan Ecolabel?	4
3	Guide to criteria	5
4	Definition of the product group	5
5	Definitions	6
6	General requirements	8
7	Chemical requirements	9
8	Binder requirements	18
9	Adhesives, multipurpose adhesives, and construction adhesives	22
10	Sealants	23
11	Fillers, putty and levelling compound (screed)	25
12	Impregnating agents for tile, stone, and concrete	26
13	Mortar and plaster	28
14	Requirements concerning packaging, labelling, consumer information, and recycling	30
15	Licence maintenance	32
Appendix 1	Declaration from the manufacturer of the chemical building product	
Appendix 2	Declaration from the manufacturer of the raw material	
Appendix 3	Example of recipe structure	
Appendix 4	Requirements on the analysis laboratory	

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
<https://joutsenmerkki.fi>

Sweden

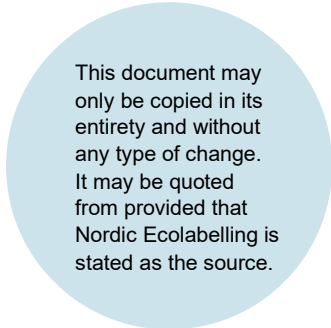
Ecolabelling Sweden
info@svanen.se
www.svanen.se

Iceland

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

Norway

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



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1 What to communicate about a Nordic Swan Ecolabel Chemical building product

A Nordic Swan Ecolabel chemical building product has reduced environmental impact throughout its lifecycle. By meeting strict requirements for chemicals, quality and raw materials, the product group is a better choice for the environment, the climate, and the users.

Nordic Swan Ecolabel chemical building products:

- Meet strict quality requirements to promote long-lasting, durable, and efficient chemical building products which leads to less use of resources in a lifecycle perspective.
- Meet strict requirements regarding environmentally hazardous chemicals.
- Meet strict health requirements for chemicals, such as strict requirements to substances that are classified to cause cancer, damage genes or reproductive capacity.
- Is free from phthalates, organic fluorinated substances and identified and potential endocrine disruptors on current lists from EU and national authorities.
- Meet strict requirements for emissions of harmful substances. This is positive for the indoor environment.
- Meet requirements for the manufacturing of raw materials with high climate impact such as titanium dioxide and cement/hydraulic binders.
- Has packaging that includes recycled plastic - which contributes to a circular economy.
- Ensures that if renewable raw materials are used, it originates from more sustainably produced and controlled sources.

The overall environmental impact in the lifecycle of this product group and Nordic Swan Ecolabel identification of where ecolabelling can have the greatest effect is described in the background document of chemical building products, Chapter 6 Environmental impact of the chemical building product.

2 What can carry the Nordic Swan Ecolabel?

The product group of chemical building products shall comprise of the following:

- Adhesives, including multipurpose adhesives/construction adhesives*
- Sealants
- Fillers / putties / screed (including primers to these)

- Impregnating agent for tiles, stone, and concrete**
- Mortar and plaster

** Here adhesives refer to products such as wood adhesive, grab adhesive, tile adhesive, wallpaper paste and the like. The product group does not include adhesives for industrial use for purposes such as furniture production or panelling.*

*** Impregnating agents for tiles, stone and concrete refer to products that have special technical properties that protect the material.*

3 Guide to criteria

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 applicant 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

To be awarded a Nordic Swan Ecolabel licence:

- All obligatory requirements must be fulfilled.
- Nordic Ecolabelling must inspect the 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 Definition of the product group

The product group definition below has been updated compared with version 2. Paints and varnishes for outdoor use, industrial paints and varnishes and anti-corrosion paints have been moved to the criteria document of Paints and varnishes version 4.

Chemical building products refers to liquid or non-hardened products for use in building work both indoors and outdoors, and on different substrates. Relevant chemical building products other than those mentioned below, which can be assessed as chemical building products, can be included in the product group upon request. The decision on which new products can be included in the product group is made by Nordic Ecolabelling." Such a wording gives Nordic Ecolabelling an opportunity to expand the product group during the validity period, with

products that are not named or were intended during the revision/criteria development.

- Adhesives, including multipurpose adhesives/construction adhesives*
- Sealants
- Fillers, putty and levelling compound (screed) (including primers to these)
- Impregnating agent for tiles, stone, and concrete**
- Mortars and plasters

* *Here adhesives refer to products such as wood adhesive, grab adhesive, tile adhesive, wallpaper paste and similar.*

** *Impregnating agents for tiles, stone and concrete refer to products that have special technical properties that protect the material.*

Solid building products such as insulation materials and plastic products, pure concrete, etc. cannot be Nordic Swan Ecolabelled under these criteria. However, Nordic Ecolabelling criteria exist for, for example small houses, windows and external doors, floors, furniture and fitments (including internal doors and stairs), building panels and sustainable wood/ durable wood-alternative to conventionally impregnated wood.

5 Definitions

Adhesive	Non-metallic substance or product used for surface-to-surface bonding, which is applied in a liquid state and then, by cooling, evaporation or chemical change, hardens into an intermediate layer with significant cohesiveness between the surfaces. Adhesive is a broad term encompassing materials like cement, mucilage, glue, and paste, often used interchangeably for substances forming adhesive bonds. Inorganic materials like Portland cement can also be regarded as adhesives.
Sealant	Soft, plastic, putty-like material used to seal joints in buildings and other structures.
Filler/Putty/Levelling compound/Screed	Pasty mass used to smooth out unevenness in a surface to be painted, wallpapered, lacquered, or covered with any floor material.
Impregnating agent	Chemical product used to impregnate the façade or surface in order to protect the substrate against penetrating moisture via hydrophobic or strongly water repellent substances.
Mortar	Is composed from a mixture of a fine aggregate (typically sand), a hydraulic binder and water. The binder is generally either lime or cement. This blend forms a paste employed in masonry construction to serve as both a bedding and adhesive. It binds and fills the gaps between adjoining blocks of brick, concrete, or stone.
Plaster	Is a pasty composition, often made of lime or gypsum, water, and sand, that hardens upon drying. It is utilized for coating walls, ceilings, and partitions in construction, providing

	<p>protection and decoration. Plaster can also be employed to craft architectural elements like ceiling roses, cornices, and corbels. Typically, it is produced as a dry powder and transformed into a stiff paste by mixing with water before application.</p>
Ingoing substances	<p>All substances in the Nordic Swan Ecolabelled 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.</p>
Impurities	<p>Residuals, pollutants, contaminants etc. from production, incl. production of raw materials, that remain in the Nordic Swan Ecolabelled product in concentrations less than 100 ppm (0.0100%).</p> <p>Impurities in the raw materials exceeding concentrations of 10 000 ppm (1.0000%) are always regarded as ingoing substances, regardless of the concentration in the Nordic Swan Ecolabelled product.</p> <p>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.</p> <p>The impurity limit of 100 ppm (0.0100%) applies to each individual substance that is excluded, i.e., Impurities with the same classification in different raw materials shall not be summed up to comply with the limit. The same contaminants in different raw materials also do not need to be summed.</p>
Phthalates	<p>Esters of phthalic acid orthophthalic acid / phthalic acid /1,2- benzene dicarboxylic acid).</p>
Alkyd resin (binder)	<p>Synthetic resin resulting from the polycondensation of fatty acids (or oils) and carbonic acids with polyols.</p>
Acrylic resin (binder)	<p>Synthetic resin resulting from the polymerization or copolymerization of acrylic and/or methacrylic monomers, frequently together with other monomers.</p>
Hydraulic binder	<p>Materials that hardens when mixed with water by means of hydration reactions.</p>
In-can preservatives	<p>Biocide used to prevent growth of microorganisms during storage of a water-based coating material or stock solution.</p> <p>Active substances within the meaning of Article 3(1)(c) of Regulation (EU) No 528/2012 of the European Parliament and of the Council (the "Biocide Regulation"), intended for use in Product Type 6 (PT 6) as described in Annex V to that Regulation.</p>
Dry-film preservatives	<p>Products used for the preservation of films or coatings by the control of microbial deterioration or algal growth in order to protect the initial properties of the surface of materials or objects.</p> <p>Active substances within the meaning of Article 3(1)(c) of Regulation (EU) No 528/2012 (the "Biocide Regulation"), intended for use in Product Type 7 (PT 7) as described in Annex V to that Regulation</p>
Nanomaterial	<p>Nanomaterials/-particles are defined according to the EU Commission Recommendation on the Definition of Nanomaterial (2022/C 229/01):</p>

	<p>'Nanomaterials' 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:</p> <p>(a) one or more external dimensions of the particle are in the size range 1 nm to 100 nm;</p> <p>(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;</p> <p>(c) the particle has a plate-like shape, where one external dimension is smaller than 1 nm and the other dimensions are larger than 100 nm.</p> <p>In the determination of the particle number-based size distribution, particles with at least two orthogonal external dimensions larger than 100 µm need not be considered.</p> <p>However, a material with a specific surface area by volume of < 6 m²/cm³ shall not be considered a nanomaterial.</p>
Volatile organic compound (VOC)	Any organic compound having an initial boiling point less than or equal to 250°C measured at a standard pressure of 101,3 kPa as defined in Directive 2004/42/EC and which, in a capillary column, are eluting up to and including n-Tetradecane (C ₁₄ H ₃₀).
Semi volatile organic compound (SVOC)	Any organic compound having a boiling point greater than 250 °C and less than 370 °C measured at a standard pressure of 101,3 kPa and which, in a capillary column are eluting with a retention range after n-Tetradecane (C ₁₄ H ₃₀) and up to and including n-Docosane (C ₂₂ H ₄₆).
Level of traceability:	
Identity preserved	Certified product(s) from a certified site is kept separate from other sources throughout supply chain.
Segregated	Certified product from different certified sources is kept physically separate from non-certified product through each stage of the supply chain.
Mass balance	Certified physical product is not separated from and may be mixed with non-certified physical product at any stage in the production process, provided that the quantities are controlled.
Book & Claim	Certified products are completely decoupled from sustainability data.

6 General requirements

01 Information about the product

The applicant must give detailed information on the product to which the application relates. The following information is required:

Trade name of the product and a description of the product and its application method.

- *If the product forms part of a component system that jointly ensures the functioning of the product, the entire product must be Nordic Swan Ecolabelled and not simply parts of it (e.g., a two-component adhesive containing a resin and hardener).*

- *Formulation detailing complete composition with a specification of all ingoing substances (see definition of raw materials and ingoing substances in 5.2 Definitions). The description must include:*
 - *The trade name of each raw material*
 - *The function of each raw material in the final product*
 - *The chemical name and CAS no. (if possible) of the ingoing substances*
 - *Content in % per ingoing substance in the product*
 - *Specification for preservatives, e.g., in-can (PT 6) or preservative for dry-film coatings (PT 7), see Definitions 5.2.*
 - *Type of binder*
- ☒ Description of the product in accordance with the definition of what may be Nordic Swan Ecolabelled, e.g., label and product data sheet (if available).
- ☒ Description of how the product is to be used to achieve functionality (e.g., as a single component, two-component or multicomponent) and which application method it is intended for.
- ☒ Formulation detailing complete composition with a specification of all raw materials and ingoing substances, as set out in Appendix 3.
- ☒ Safety data sheets for each raw material in line with prevailing European legislation (Annex II to REACH Regulation, 1907/2006/EC).

7 Chemical requirements

The requirements in the criteria document and accompanying appendices apply to all ingoing substances in the Nordic Swan Ecolabelled product. Impurities are not regarded as ingoing substances and are exempt from the requirements. Ingoing substances and impurities are defined in 3.2. Definitions, unless stated otherwise in the requirements.

O2 Classification of the product

The final product must not be classified according to Table 1. Note that the responsibility for correct classification lies with the manufacturer.

Table 1 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
	Aquatic Chronic 3	H412
	Aquatic Chronic 4	H413
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
	Acute Tox. 4	H302
	Acute Tox. 4	H312
	Acute Tox. 4	H332
Specific target organ toxicity: single or repeated exposure	STOT SE 1 or 2	H370
	STOT SE 1 or 2	H371

Classification	Hazard class and category	Hazard code
	STOT RE 1 or 2	H372
	STOT RE 1 or 2	H373
Skin corrosion/irritation	Skin Corr. 1A, 1B or 1C	H314
Aspiration hazard	Asp. Tox. 1	H304
Skin sensitisation	Skin Sens. 1, 1A or 1B	H317
Respiratory sensitisation	Resp. Sens. 1, 1A or 1B	H334
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
Endocrine disruption for human health**	ED HH 1	EUH380
	ED HH 2	EUH381
Endocrine disruption for the environment**	ED ENV 1	EUH430
	ED ENV 2	EUH431
Persistent, Bioaccumulative and Toxic properties**	PBT	EUH440
Very Persistent, Very Bioaccumulative properties**	vPvB	EUH441
Persistent, Mobile and Toxic properties	PMT	EUH450
Very Persistent, Very Mobile properties	vPvM	EUH451
Explosives	Unst. Expl.	H200
	Expl. 1.1	H201
	Expl. 1.2	H202
	Expl. 1.3	H203
	Expl. 1.4	H204
	Expl. 1.5	H205
	Expl. 1.6	H206
Oxidizing liquids and solids	Ox. Liq. 1 to 3	H271
	Ox. Sol. 1 to 3	H272
Organic peroxides and self-reactive substances and mixtures	Org. Perox. A to EF	H240
	Org. Perox. A to EF	H241
	Org. Perox. A to EF	H242
Extremely flammable aerosol and liquids	Aerosol 1	H222
	Flam. Liq. 1	H224

* The classifications concern all classification variants. For example, H350 also covers classification H350i.

** See also O12 for additional criteria for potential or identified endocrine disruptors and PBT/vPvB substances.

- Safety data sheet in accordance with Annex II of REACH (Regulation 1907/2006) for each product in the application.

O3 Classification of ingoing substances

The final product must not contain ingoing substances that are classified according to Table 2. Note that the responsibility for correct classification lies with the manufacturer.

Table 2 Classification of ingoing substances CLP Regulation 1272/2008

Classification	Hazard class and category	Hazard code
Carcinogenicity*	Carc. 1A or 1B Carc. 2	H350, H351
Germ cell mutagenicity*	Muta. 1A or 1B Muta. 2	H340 H341
Reproductive toxicity*	Repr. 1A or 1B Repr. 2 Lact.	H360 H361 H362
Respiratory sensitisation	Resp. Sens. 1, 1A or 1B	H334
Specific target organ toxicity: single exposure or repeated exposure	STOT SE 1 STOT RE 1	H370 H372
Endocrine disruption for human health**	ED HH 1 ED HH 2	EUH380 EUH381
Endocrine disruption for the environment**	ED ENV 1 ED ENV 2	EUH430 EUH431
Persistent, Bioaccumulative and Toxic properties**	PBT	EUH440
Very Persistent, Very Bioaccumulative properties**	vPvB	EUH441
Persistent, Mobile and Toxic properties	PMT	EUH450
Very Persistent, Very Mobile properties	vPvM	EUH451

* *The classifications concern all classification variants. For example, H350 also covers classification H350i.*

** *See also O12 for additional criteria for potential or identified endocrine disruptors and PBT/vPvB substances.*

Exemptions:

- Respirable crystalline silica/quartz classified as H372/H350i with a maximum content of 1% in raw materials, see separate requirement O10.
- Glyoxal (CAS no. 107-22-2) if the pH in the final product is above 7.5.
- Titanium dioxide (CAS no. 13463-67-7), see separate requirement O9.
- Trimethylolpropane (TMP) (CAS no. 77-99-6), maximum content of 1% in pigments. Time-limited exemption valid until 2027-05-31.
- If the classification is due to monomers in polymers, please see requirement O7.
- Formaldehyde (CAS. No. 50-00-0), see separate requirement O6.
- Methanol (CAS no. 67-56-1) with a maximum content of 0.10% in newly produced sealants and mounting adhesives*.
- Preservatives classified as H370 and H372.

* *Mounting adhesives refers to adhesives used on non-absorbing substrates, such as metals and glazed surfaces. Mounting adhesives are used on smaller surfaces, like for example mounting mirrors.*

- ☒ Declaration in line with Appendix 1 from the manufacturer of the product and Appendix 2 from the manufacturer of each raw material. Documentation of exemptions for each substance is done in Appendix 1 and 2, together with a statement as to why the substance is present in the product/raw material and other documentation if appropriate. If methanol is included in the sealant or construction adhesive it must be documented with test results.

- Safety data sheet for all raw materials in line with Annex II to REACH (Regulation (EC) No 1907/2006).

O4 Environmentally harmful substances

Ingoing substances classified as environmentally harmful with hazard phrases H410, H411 and/or H412, according to CLP Regulation (1272/2008), are limited in the product according to the following formulas.

$$M \cdot 100 \cdot H410 + 10 \cdot H411 + H412 \leq 8\%$$

Where *M* is the multiplying factor for H410 as stated in CLP.

H410 is the concentration of substances classified with H410 in percent

H411 is the concentration of substances classified with H411 in percent

H412 is the concentration of substances classified with H412 in percent

If information about a substance's harmfulness to the environment (in the form of data concerning toxicity and degradability or toxicity and bioaccumulation) is not available, the substance is treated as environmentally harmful – H410, and multiplication factor 100.

Exemptions:

- Preservatives are exempted from the requirement, however, requirement O2 and O5 must still be fulfilled.
- Zinc oxide (CAS no. 1314-13-2) is exempted up to 2500 ppm (0.25%) in the final product. If the product contains 0.5% Zinc oxide, then 0.25% must be included in the calculation.

- Declaration in line with Appendix 1 from the manufacturer of the product and Appendix 2 from the manufacturer of each raw material.
- Safety data sheet for all constituent substances in line with Annex II to REACH (Regulation (EC) No 1907/2006).
- Calculation clearly showing that the requirement is fulfilled.

O5 Preservatives

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

The amount of preservative/combination of preservatives is limited in the final product according to the table 3. See also limitations in requirements O2 and O3. The amount of preservatives must not exceed the maximum theoretical amount at the time of the production.

Note that Dithio-2,2'-bis-benzmethylamide (DTBMA, CAS no. 2527-58-4) is to be included in the total amount of isothiazolinones.

Note that 2-cyanoacetamide (DBNPA, CAS no. 10222-01-2) is to be excluded from the calculation of total preservatives.

The amount of preservatives may be reported in one of the following ways:

- The maximum theoretical amount of preservative must not exceed the limit values in Table 3 at the time of manufacturing. The limit value is stated in the tables below and the amount must be calculated based on added preservatives and the maximum amount in the raw materials.
or
- Alternatively, the amount of preservatives can be measured analytically by high-performance liquid chromatography (HPLC) or similar methods and shall be based on the maximum amount in the final product. The

measurement is made on the finished product before it is sealed or the raw materials that contain biocides.

Table 3 Concentration limits for preservatives in the final product.

Product type	Isothiazolinones*	Iodopropynyl butylcarbamate (IPBC)	Preservatives total
Adhesives	300 ppm (0.0300%)	100 ppm (0.0100%)	500 ppm (0.0500%)
Sealants	300 ppm (0.0300%)	100 ppm (0.0100%)	500 ppm (0.0500%)
Fillers	500 ppm (0.0500%)	100 ppm (0.0100%)	700 ppm (0.0700%)
Impregnating agents for tile, stone and concrete	300 ppm (0.0300%)	100 ppm (0.0100%)	500 ppm (0.0500%)
Plaster and mortar	-	-	-

* All PT 6 isothiazolinones with a specific concentration limit (SCL) of 15 ppm or 360 ppm are limited to 15 ppm or 360 ppm each in the final product (each CLP Appendix VI entry calculated separately).

If the SCL is changed in accordance with CLP Regulation 1272/2008 Annex VI for other PT 6 isothiazolinones, they and their limit values will also be changed and added accordingly.

- Declaration in line with Appendix 1 from the manufacturer of the product and Appendix 2 from the manufacturer of each raw material.
- Test report of results from analysis by HPLC or similar method showing that the requirement concerning preservatives is fulfilled.
- Documentation showing that the test laboratory fulfils the requirement in Appendix 4.
- Calculation clearly showing that the requirement concerning preservatives is fulfilled.

06 Formaldehyde

In fillers, formaldehyde is permitted as an impurity in newly produced polymers at a concentration of no more than 200 ppm (0.0200 w%, 200 mg/kg), on condition that the content of free formaldehyde in the end product does not exceed 25 ppm (0.0025 w%, 25 mg/kg).

In adhesives, sealants and multipurpose adhesives/construction adhesives, formaldehyde is permitted as an impurity in newly produced polymers at a concentration of no more than 250 ppm (0.0250 w%, 250 mg/kg), on condition that the content of free formaldehyde in the end product does not exceed 25 ppm (0.0025 w%, 25 mg/kg).

Indoor products:

- The level of free formaldehyde in the final product must not exceed 25 ppm (0.0025 w%, 25 mg/kg) measured by HPLC, the Merckoquant method or similar methods.
- The emissions of formaldehyde of the final product after 28 days must not exceed 0.06 mg/m³ measured in the air of a test chamber according to EN 16516.

Outdoor products:

- The level of free formaldehyde in the final product must not exceed 25 ppm (0.0025 w%, 25 mg/kg) measured by HPLC, the Merckoquant method or similar methods.
- Declaration in line with Appendix 1 from the manufacturer of the product and Appendix 2 from the manufacturer of each raw material.
- Test report according to EN 16516, HPLC, Merckoquant method or other equivalent test method for the products showing that requirement is met.
- Documentation showing that the test laboratory fulfils the requirement in Appendix 4.

O7 Residual monomers in polymers

For each polymer present in the product >1 w% the quantity of residual monomers* and its classifications must be stated. There cannot be more than 100 ppm (0.0100 w%, 100 mg/kg) of the residual monomer in newly produced polymers of each classification in Table 4.

* *Residual monomers in newly produced polymers and based on the content in the raw material.*

Table 4 Classification according to CLP Regulation 1272/2008

Classification	Hazard class and category	Hazard code
Carcinogenicity	Carc. 1A or 1B Carc. 2	H350, H350i H351
Mutagenic	Muta. 1A or 1B Muta. 2	H340 H341
Germ cell mutagenicity	Repr. 1A or 1B Repr. 2 Lact.	H360 H361 H362
Respiratory sensitisation	Resp. Sens. 1, 1A or 1B	H334
Specific target organ toxicity: single exposure or repeated exposure	STOT SE 1 or 2 STOT SE 1 or 2 STOT RE 1 or 2 STOT RE 1 or 2	H370 H371 H372 H373

Exemptions:

- Vinyl acetate (CAS no. 108-05-4) as residual monomer in polymers up to 700 ppm.
- Declaration in line with Appendix 1 from the manufacturer of the product and Appendix 2 from the manufacturer of each raw material.
- If vinyl acetate (CAS no. 108-05-4) is present in an amount over 100 ppm, please also state the amount in ppm in each polymer.

O8 Heavy metals

The following heavy metals or heavy metal compounds must not be present in the product or in its raw materials. Traces of the following metals from residuals can be included up to 100 ppm (100 mg/kg, 0.0100 w%) per single metal in the raw material.

- Cadmium
- Lead

- Chromium VI
- Mercury
- Arsenic
- Barium
- Selenium
- Antimony

Exemptions:

- Barium sulphate and other equally insoluble barium compounds.
- Antimony in pigments contained in a TiO₂ rutile lattice on the following terms: test results must prove that the molecular structure is inert, and that the environmental and health effects of the pigment are on the same level as, or better than, the results for C.I Pigment Brown 24 CAS no. 68186-90-3 and C.I Pigment Yellow 53 CAS no. 8007-18-9 in the report: UNEF Publications, OECD SIDS Initial Assessment Profile (www.inchem.org).
- Raw material for plaster and mortar may contain a maximum of 200 ppm of lead in the raw material.

- ☒ Declaration in line with Appendix 1 from the manufacturer of the product and Appendix 2 from the manufacturer of each raw material.
- ☒ For pigment that contains antimony integrated into a TiO₂ rutile lattice, documentation must be submitted to show that the molecular structure is inert, and that the environmental and health effects of the pigment are on the same level as, or better than, the results for C.I Pigment Brown 24 CAS no. 68186-90-3 and C.I Pigment Yellow 53 CAS no. 8007-18-9 in the report: UNEF Publications, OECD SIDS Initial Assessment Profile (www.inchem.org).
- ☒ For antimony in pigments that are exempted by the above terms, please attach test according to test method DIN 53770-1 or equivalent, showing that terms (molecular structure is inert, and that the environmental and health effects of the pigment are on the same level as, or better than, the results for C.I Pigment Brown 24 CAS no. 68186-90-3 and C.I Pigment Yellow 53 CAS no. 8007-18-9 in the report: UNEF Publications, OECD SIDS Initial Assessment Profile (www.inchem.org). are fulfilled).

09 Titanium dioxide

If the product contains more than 3.0 w% of titanium dioxide (TiO₂) (CAS no. 13463-67-7), the following requirements apply for energy consumption, emissions and residual waste and occupational exposure:

- Energy consumption:

Full or pending implementation of an energy management system for the manufacturing plant in accordance with ISO 50001.

- Emissions and residual waste:

Emissions from the production of TiO₂ shall not exceed the values given in Table 5 and 6 for the sulphate process and the chloride process, respectively.¹

¹ Derived from the Best Available Techniques for the Production of Basic Inorganic Chemicals (BREF) (August 2007).

Table 5 Emission limits from the production of TiO₂ using the sulphate process.

Sulphate process	Limit
SO _x expressed as SO ₂ :	7.0 kg/tonne TiO ₂
Sulphate waste:	500 kg/tonne TiO ₂

Table 6 Emission limits from the production of TiO₂ using the chloride process.

Chloride process	Limit
When using natural ore:	103 kg chloride waste/tonne TiO ₂
When using synthetic ore:	179 kg chloride waste/tonne TiO ₂
When using slag ore:	329 kg chloride was/tonne TiO ₂

If more than one type of ore is used, the values apply proportionately to the ore type used.

- Occupational exposure:

The raw material manufacturer must meet the requirements for powder handling according to O10.

- ☒ Declaration in line with Appendix 1 from the manufacturer of the product and Appendix 2 from the manufacturer of each raw material.
- ☒ ISO 50 001 certificate for the manufacturing plant or documentation showing pending implementation.
- ☒ A description and calculation from the titanium dioxide-manufacturer showing that the requirement for emissions is fulfilled.
- ☒ The raw material manufacturer must submit a description of how powdered raw materials are handled during the production process.

O10 Powdered raw materials

Raw materials in powder form must be added in a closed system, in a suspension or by means of a method that promotes a “low-dust” working environment e.g., using protective equipment which heavily reduce the dust or completely remove the dust from the raw materials (e.g., exhaust ventilation, personal protective equipment and clear safety instructions).

- ☒ Description of how powdered raw materials are handled during the production process for chemical building products.

O11 Nanomaterials/-particles

Nanomaterials/-particles must not be added or be present in the product.

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 external dimension is smaller than 1 nm and the other dimensions are larger than 100 nm.*

Exemptions:

- Pigments. This exemption does not apply to pigments added for other purposes than imparting colour. Please note that Nano-TiO₂ is not considered a pigment.
 - Naturally occurring inorganic fillers. This exemption applies to fillers subject to Annex V, paragraph 7 of REACH.
 - Synthetic amorphous silica (SAS). This exemption applies to non-modified SAS. 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 O3 (Classification of constituent chemical substances) and requirement O12 (Prohibited substances).
 - Unmodified calcium carbonate (grounded calcium carbonate, GCC) and unmodified precipitated calcium carbonate (PCC).
 - Polymer dispersions.
- ☒ Declaration in line with Appendix 1 from the manufacturer of the product and Appendix 2 from the manufacturer of each raw material.

O12 Prohibited substances

The product must not contain ingoing substances that are:

- 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 and substances that have not yet been investigated, but which meet these criteria.
- 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>
2,2-dibromo-2-cyanoacetamide (DBNPA, CAS. No 10222-01-2) is exempted from the requirement.
Butylated hydroxytoluene (BHT, CAS. No 128-37-0) is exempted from the requirement up to 100 ppm in the final product.
 - <https://edlists.org/the-ed-lists/list-iii-substances-identified-as-endocrine-disruptors-by-participating-national-authorities>

A substance which is transferred to one of the corresponding sublists called "Substances no longer on list", and no longer appears on any of List I-III, is no longer excluded. The exception is those substances on sublist II which were evaluated under a regulation or directive which doesn't 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 on sublist II."

- Organotin compounds.
- Phthalates (Definition of phthalates: *Esters of phthalic acid orthophthalic acid / phthalic acid / 1,2- benzene dicarboxylic acid*).

- 34 bisphenols² that have been identified by ECHA for further EU regulatory risk management that are known or potential endocrine disruptors for the environment or for human health, or that can be identified as toxic for reproduction.
- Alkylphenols, alkylphenol ethoxylates (APEO) and other alkylphenol derivatives (APD).
- Perfluorinated and polyfluorinated alkylated substances (PFAS)
- Halogenated organic compounds. Exemptions* for:
 - Preservatives that fulfil O5.
 - Pigments that meet the EU's requirement concerning colourants in food packaging under Resolution AP (89) point 2.5.

* *Perfluorinated and Polyfluorinated alkyl substances are covered by their own bulletin and are not included in the exemption.*

- Isocyanates. Exemption for water-borne polyisocyanates with a chain length of more than 10, where the concentration of isocyanates with a chain length of less than 10 as an impurity is documented.
- Fragrances.
- Boric acid, borates, and perborates.
- Ethylenediamine tetraacetate (EDTA) and its salts and Diethylenetriamine pentaacetate (DTPA) and its salts are limited to 0,1% in the final product.

- ☒ Declaration in line with Appendix 1 from the manufacturer of the product and Appendix 2 from the manufacturer of each raw material.
- ☒ If halogenated organic pigments are used, a declaration is required from the pigment supplier confirming that the pigment meets the EU's requirement concerning colourants in food packaging under Resolution AP (89) point 2.5.
- ☒ If water-borne polyisocyanates with a chain length of more than 10, where the concentration of isocyanates with a chain length of less than 10 as an impurity are used, send documentation showing this.

8 Binder requirements

The requirements in this section aims to promote raw materials with less climate impact, reduced energy consumption, increased energy efficiency, transition from fossil to sustainable raw materials, use of more renewable energy – and subsequently, reduced emissions of greenhouse gases. The requirements are divided in three parts depending on the binder type (acrylic resin, alkyd resin or cement/hydraulic binders), where the specific binder type in question must fulfil the requirement where relevant below. The description and the requirement of the chemical type of binder shall be derived from that component of the binder which is decisive for the characteristic properties of the final product.

² Assessment of regulatory needs: Bisphenols. ECHA – 16 December 2021: Section 2.1: Bisphenols for which further EU RRM is proposed – restriction
<https://echa.europa.eu/documents/10162/c2a8b29d-0e2d-7df8-dac1-2433e2477b02>

O13 Acrylic and alkyd resin binders

The following requirements must be fulfilled if the product contains acrylic or alkyd resins:

1. The license holder shall have a a) supply chain policy and b) code of conduct for responsible sourcing of renewable raw materials* used in acrylic and/or alkyd resin binders used in Nordic Swan Ecolabelled chemical building products.
 - a) The supply chain policy shall include the following:
 - A policy statement committing the license holder to respect human rights and the environment within its operations and supply chain; this includes a commitment to support suppliers' compliance with the supplier code of conduct by engaging in responsible purchasing practices.
 - Commitment to comply with all applicable local, national- and international environmental laws and regulations, as well as all applicable health and safety regulations.
 - A description for governance processes in place for due diligence; this includes routines for assessing biodiversity and deforestation risk along the whole supply chain.
 - b) A supplier Code of Conduct, that informs all suppliers along the whole supply chain what is expected of them with respect to the Licensee's own supply chain policy regarding human rights and protecting the environment.

The supply chain policy and code of conduct must be both public and communicated to the supply chain.

2. Acrylic resin binders:
 - If renewable raw materials from palm oil are used in acrylic resins the palm oil must be RSPO certified. This also includes by-products, residues, and waste fractions from palm oil industries, such as palm fatty acid distillate and palm effluent sludge. Traceability must at least be ensured by mass balance. Book and claim systems are not accepted.
 - If any other renewable raw materials are used in acrylic resins, the raw material manufacturer of the acrylic resin must document:
 - Type of renewable raw material used in the acrylic resins (e.g., crops, sugarcane, source of bio-naphtha),
 - Whether the renewable raw materials are derived from primary feedstock or residue or waste,
 - Whether the renewable raw materials are certified according to any sustainability standards,
 - Level of traceability for certified products, (Identity Preserved, Segregated, Mass Balance, Book & Claim) on both the renewable raw materials used in the production of acrylic monomers and the acrylic resin itself.
3. Alkyd resin binders:
 - Fatty acids used in alkyd resin binders must be made from renewable or recycled raw materials.

- Renewable raw materials from palm oil must not be used in fatty acids in alkyd resin. The requirement also includes by-products, residues, and waste fractions from palm oil industries, such as palm fatty acid distillate and palm effluent sludge.
- The raw material manufacturer of the alkyd resin must document:
 - Type of renewable raw material used in the alkyd resins (e.g., castor oil, tall oil, rapeseed oil, soybean oil),
 - Whether the renewable raw materials are derived from primary feedstock or residue or waste,
 - Whether the renewable raw materials are certified according to any sustainability standards,
 - Level of traceability for certified products, (Identity Preserved, Segregated, Mass Balance, Book & Claim) on the renewable raw materials used in the production of alkyd resins.

** Renewable raw materials compose of biomass and that can be continually replenished for example wood, crops, marine products, organic waste.*

- Submit both supply chain policy and supplier code of conduct, together with information on how these are public and communicated to the supply chain.
- Declaration in line with Appendices 1 or 2 from the manufacturer of the product or the manufacturer of each raw material, respectively.

Acrylic resin binders:

- Invoices/delivery notes/order confirmation which document purchase of RSPO certified raw materials. The information on the document must include information on type of traceability (Segregated, identity preserved or mass balance)
- The raw material manufacturer must provide information on the raw material(s) according to the requirement.

Alkyd resin binders:

- Declaration from the licensee stating that a) fatty acids used in alkyd resin binders are made from renewable raw materials or recycled raw materials and b) renewable raw materials from palm oil are not used in fatty acids in alkyd resin.
- The raw material manufacturer must provide information on the raw material(s) according to the requirement.

O14 Cement/Hydraulic binder

For cementous raw materials or building lime raw materials used in the product, the total Global Warming Potential (GWP) for system boundaries A1, A2 and A3 according to EN 15804+A2 and EN 16908+A1 shall not exceed the limit values in Table 7. The data quality must fulfil quality level Fair or better, in accordance with EN 15804+A2, Annex E Table E.1 and E.2.

The Environmental Product Declaration (EPD) must be product/plant specific, and 3rd party verified. The reported values must reflect the absolute gross* CO₂ emissions.

The raw material manufacturer of cement must declare the cement to clinker ratio for the raw material. The clinker factor must be calculated according to EN 197.

Table 7 Limit values for product specific emissions of cementous raw materials or lime based on clinker to cement ratio.

Clinker to cement ratio	Gross GWPot (kgCO ₂ e/tonne cement clinker)
Grey cement	
0,0	264
0,1	320
0,2	376
0,3	432
0,4	488
0,5	544
0,6	601
0,7	657
0,8	713
0,9	769
1,0	825
Lime	820
White cement	
0,0	330
0,1	400
0,2	470
0,3	540
0,4	610
0,5	681
0,6	751
0,7	821
0,8	828
0,9	925
1,0	1023

** Absolute gross CO₂ emissions are the fossil and direct CO₂ emissions. Gross emissions include CO₂ from alternative fossil fuels. However, CO₂ emissions from biomass fuels and on-site power generation can be excluded from the calculation.³*

- Product-Specific Type III Environmental Product Declaration (EPD) in accordance with ISO 14025, EN 15804+A2 and EN 16908+A1. The data quality must fulfil quality level Fair or better, in accordance with EN 15804+A2, Annex E Table E.1 and E.2.
- Documentation from the license holder showing that the specific cement or hydraulic binder is used in the product.
- Product data sheet or declaration of performance from the raw material manufacturer showing the exact cement to clinker ratio and cement type for the raw material.
- Declaration in line with Appendices 1 or 2 from the manufacturer of the product or the manufacturer of each raw material, respectively.

³ CO₂ and Energy Accounting and Reporting Standard for the Cement Industry, Version 3.0 (2011)

9 Adhesives, multipurpose adhesives, and construction adhesives

O15 Volatile aromatic compounds (VAC)

Volatile aromatic compounds (VAC) must not be actively added to the product but may occur as residuals to a total maximum of 100 ppm (0.01 w%, 100 mg/kg) in the final product.

Volatile aromatic compounds are volatile organic compounds where one or more benzene rings are contained within the molecule.

- Declaration in line with Appendix 1 from the manufacturer of the product and Appendix 2 from the manufacturer of each raw material.
- Calculation of the level of volatile aromatic compounds in the product (based on data for all ingoing raw materials).

O16 Volatile organic compounds (VOC)

Adhesives that are intended for frostproof use during the winter may contain maximum 6.0% by weight volatile organic compounds (VOC).

Other adhesives may contain a maximum of 1.0% by weight volatile organic compounds.

Note that if, during use, volatile organic compounds form, these must meet all applicable obligatory requirements.

- Declaration in line with Appendix 1 from the manufacturer of the product and Appendix 2 from the manufacturer of each raw material.
- Calculation of the level of volatile organic compounds in the product (based on data for all ingoing raw materials).

O17 Emission of total volatile compounds (TVOC) and semi-volatile organic compounds (TSVOC) in adhesives

For indoor adhesives, the emissions of carcinogenic VOC and Total Volatile Organic Compounds (TVOCs) must not exceed limits given in Table 8.

Emissions of total Semi-Volatile Organic Compounds (TSVOCs) are not covered by a limit value but must be reported for the product.

For indoor adhesives, the emission of TVOCs, TSVOCs and carcinogenic VOC shall be determined by the filler with the highest theoretical amount of TVOC, TSVOC, and carcinogenic VOC from the contribution of raw materials.

Note: If the product is intended for both outdoor and indoor use, it must meet the requirements concerning indoor adhesives.

Test method: Emission testing after 28-days according to EN 16516 or EN 16402 or other equivalent test methods.

Adhesives for indoor use sold in packs of less than 125 ml are exempted from this requirement.

The test laboratory must fulfil the requirements in Appendix 4.

Table 8 Emission limits for the final product for fillers after 28 days

Product description	1A and 1B carcinogenic VOC*	TVOC	TSVOC
Indoor Adhesives	≤ 0,001 mg/m ³	≤ 0,06 mg/m ³	-

* Carcinogenic 1A and 1B VOCs listed in Annex H of EN 16516.

- ☒ Specification of packaging size.
- ☒ Test report in accordance with EN 16516, EN 16402 or other equivalent standardised test conditions and determination methods for products sold in packs greater than 125 ml.
- ☒ Documentation showing that the test laboratory fulfils the requirements in Appendix 4.

O18 Quality requirements for adhesives

Adhesives are to be tested in accordance with the standards stated below. If there is no relevant quality test for a specific product mentioned below, Nordic Ecolabelling can extend the requirements for quality tests during the validity of the criteria to include other relevant tests.

Table 9 Quality tests for adhesives

Types	Test method
Adhesives for wall and floor coverings	EN ISO 22631, EN ISO 22632, EN 1902 or equivalent methods. At least one comparable reference product is to be tested.
Ceramic tile adhesive	For dispersion adhesives and cement-based adhesives: EN 12004-2 or equivalent methods. The adhesive must meet the minimum requirements in standard EN 12004 for the particular type of adhesive.
Wallpaper paste	Comparative test (see Appendix 4) that clearly shows the quality of the adhesive.
Wood adhesive	EN 205 or equivalent methods. At least one comparable reference product is to be tested.
Chemical anchors, multipurpose adhesives / construction adhesives	EAD 330449-01-0601 that has resulted in ETA approval.
Other adhesives	Methods that apply for these products or comparative test (see Appendix 4) that clearly shows the quality of the adhesive.

- ☒ Test report from a laboratory in line with Appendix 4 or a comparative test in line with Appendix 4, which clearly shows that the requirement is fulfilled.

10 Sealants

O19 Volatile aromatic compounds (VAC)

Volatile aromatic compounds (VAC) must not be actively added to the product but may occur as residuals to a total maximum of 100 ppm (0.01 w%, 100 mg/kg) in the final product.

Volatile aromatic compounds are volatile organic compounds where one or more benzene rings are contained within the molecule.

- ☒ Declaration in line with Appendix 1 from the manufacturer of the product and Appendix 2 from the manufacturer of each raw material.
- ☒ Calculation of the level of volatile aromatic compounds in the product (based on data for all ingoing raw materials).

O20 Volatile organic compounds (VOC)

Sealants are permitted to contain no more than 3.0% by weight volatile organic compounds.

Note that if, during use, volatile organic compounds form, these must meet all applicable obligatory requirements.

- ☒ Declaration in line with Appendix 1 from the manufacturer of the product and Appendix 2 from the manufacturer of each raw material.
- ☒ Calculation of the level of volatile organic compounds in the product (based on data for all ingoing raw materials).

O21 Emission of total volatile compounds (TVOC) and semi-volatile organic compounds in sealants

For indoor sealants, the emissions of carcinogenic VOC and Total Volatile Organic Compounds (TVOCs) must not exceed limits given in Table 10.

Emissions of total Semi-Volatile Organic Compounds (TSVOCs) are not covered by a limit value but must be reported for the product.

For indoor sealants, the emission of TVOCs, TSVOCs and carcinogenic VOC shall be determined by the indoor sealant with the highest theoretical amount of TVOC, TSVOC, and carcinogenic VOC from the contribution of raw materials.

Note: If the product is intended for both outdoor and indoor use, it must meet the requirements concerning indoor sealants.

Test method: Emission testing after 28-days according to EN 16516 or EN 16402 or other equivalent test methods.

Sealants for indoor use sold in packs of less than 125 ml are exempted from this requirement.

The test laboratory must fulfil the requirements in Appendix 4.

Table 10 Emission limits for the final product for fillers after 28 days

Product description	1A and 1B carcinogenic VOC*	TVOC	TSVOC
Indoor sealants	≤ 0,001 mg/m ³	≤ 0,06 mg/m ³	-

* Carcinogenic 1A and 1B VOCs listed in Annex H of EN 16516.

- ☒ Specification of packaging size.
- ☒ Test report in accordance with EN 16516, EN 16402 or other equivalent standardised test conditions and determination methods for products sold in packs greater than 125 ml.
- ☒ Documentation showing that the test laboratory fulfils the requirements in Appendix 4.

O22 Quality requirements for sealants

The sealant must, where appropriate, be tested in accordance with ISO 11600. Other sealants are to be subject to a comparative test (see Appendix 4) that clearly shows the quality of the sealant.

If there is no relevant quality test for a specific type of sealant, Nordic Ecolabelling can extend the requirements for quality tests during the validity of the criteria to include other relevant tests.

For cement-based products within sealants EN 13888 Grout for tiles, or equivalent methods, are accepted.

- ☒ Test report from a laboratory in line with Appendix 4 or comparative test in line with Appendix 4, which clearly shows that the requirement is fulfilled.

11 Fillers, putty and levelling compound (screed)

O23 Volatile aromatic compounds (VAC)

Volatile aromatic compounds (VAC) must not be actively added to the product but may occur as residuals to a total maximum of 100 ppm (0.01 w%, 100 mg/kg) in the final product.

Volatile aromatic compounds are volatile organic compounds where one or more benzene rings are contained within the molecule.

- Declaration in line with Appendix 1 from the manufacturer of the product and Appendix 2 from the manufacturer of each raw material.
- Calculation of the level of volatile aromatic compounds in the product (based on data for all ingoing raw materials).

O24 Volatile organic compounds (VOC)

Fillers are permitted to contain no more than 3.0w% volatile organic compounds in ready-mixed filler.

Note that if, during use, volatile organic compounds form, these must meet all applicable obligatory requirements.

- Declaration in line with Appendix 1 from the manufacturer of the product and Appendix 2 from the manufacturer of each raw material.
- Calculation of the level of volatile organic compounds in the product (based on data for all ingoing raw materials).

O25 Emission of total volatile compounds (TVOC) and semi-volatile organic compounds in fillers

For fillers, the emissions of carcinogenic VOC and Total Volatile Organic Compounds (TVOCs) must not exceed limits given in Table 11.

Emissions of total Semi-Volatile Organic Compounds (TSVOCs) are not covered by a limit value but must be reported for the product.

For fillers, the emission of TVOCs, TSVOCs and carcinogenic VOC shall be determined by the filler with the highest theoretical amount of TVOC, TSVOC, and carcinogenic VOC from the contribution of raw materials.

Note: If the product is intended for both outdoor and indoor use, it must meet the requirements concerning indoor filler.

Test method: Emission testing after 28-days according to EN 16516 or EN 16402 or other equivalent test methods.

Fillers for indoor use sold in packs of less than 125 ml are exempted from this requirement.

The test laboratory must fulfil the requirements in Appendix 4.

Table 11 Emission limits for the final product for fillers after 28 days

Product description	1A and 1B carcinogenic VOC*	TVOC	TSVOC
Fillers	≤ 0,001 mg/m ³	≤ 0,06 mg/m ³	-

* Carcinogenic 1A and 1B VOCs listed in Annex H of EN 16516.

- Specification of packaging size.

- Test report in accordance with EN 16516, EN 16402 or other equivalent standardised test conditions and determination methods for products sold in packs greater than 125 ml.
- Documentation showing that the test laboratory fulfils the requirements in Appendix 4.

O26 Quality requirements for fillers, putty and levelling compounds (screed)

The manufacturer must describe how the filler is tested in order to ensure good, consistent quality, particularly in terms of viscosity, adhesion, gap-filling properties, shrinkage, minimal sinking and durability.

Test of filler for plasterboard conducted in accordance with the standard EN 13963. Test of other filler in accordance with EN 15824 or other relevant harmonised standards. For fillers tests of adhesion can also be approved according to EN 16566 and for products to be used in wet areas it is also required to do wet scrub measurements according to the standard.

The products can also be tested using a comparative test (see Appendix 4) that clearly shows the quality of the filler.

For cement-based products within Fillers/Screed EN 13813 with relevant measurements according to table 1 chapter 5.2 in the standard, or equivalent methods, are accepted.

- Test report from a laboratory in line with Appendix 4 or comparative test in line with Appendix 4, which clearly shows that the requirement is fulfilled.

12 Impregnating agents for tile, stone, and concrete

O27 Volatile aromatic compounds (VAC)

Volatile aromatic compounds (VAC) must not be actively added to the product but may occur as residuals to a total maximum of 100 ppm (0.01 w%, 100 mg/kg) in the final product.

Volatile aromatic compounds are volatile organic compounds where one or more benzene rings are contained within the molecule.

- Declaration in line with Appendix 1 from the manufacturer of the product and Appendix 2 from the manufacturer of each raw material.
- Calculation of the level of volatile aromatic compounds in the product (based on data for all ingoing raw materials).

O28 Volatile organic compounds (VOC)

Impregnating agents for tile, stone and concrete may contain a maximum of 1.0% by weight volatile organic compounds.

Note that if, during use, volatile organic compounds form, these must meet all applicable obligatory requirements.

- Declaration in line with Appendix 1 from the manufacturer of the product and Appendix 2 from the manufacturer of each raw material.
- Calculation of the level of volatile organic compounds in the product (based on data for all ingoing raw materials).

O29 Emission of total volatile compounds (TVOC) and semi-volatile organic compounds (TSVOC) in impregnating agents

For indoor impregnating agents, the emissions of carcinogenic VOC and Total Volatile Organic Compounds (TVOCs) must not exceed limits given in Table 12.

Emissions of total Semi-Volatile Organic Compounds (TSVOCs) are not covered by a limit value but must be reported for the product.

For indoor impregnating agents, the emission of TVOCs, TSVOCs and carcinogenic VOC shall be determined by the filler with the highest theoretical amount of TVOC, TSVOC, and carcinogenic VOC from the contribution of raw materials.

Note: If the product is intended for both outdoor and indoor use, it must meet the requirements concerning indoor impregnating agents.

Test method: Emission testing after 28-days according to EN 16516 or EN 16402 or other equivalent test methods.

The test laboratory must fulfil the requirements in Appendix 4.

Table 12 Emission limits for the final product for fillers after 28 days

Product description	1A and 1B carcinogenic VOC*	TVOC	TSVOC
Indoor impregnating agents	≤ 0,001 mg/m ³	≤ 0,06 mg/m ³	-

* *Carcinogenic 1A and 1B VOCs listed in Annex H of EN 16516.*

- Test report in accordance with EN 16516, EN 16402 or other equivalent standardised test conditions and determination methods.
- Documentation showing that the test laboratory fulfils the requirements in Appendix 4.

O30 Quality requirements for impregnating agents for tile, stone and concrete

A test must be carried out for wear according to EN 13892-4. The product must live up to the minimum AR 1 (i.e. AR 1 or lower numerical value for AR).

If the product is claimed to reduce coatings and fouling, a field test must be performed where tiles, stone or concrete with impregnation are applied according to the instructions for the product and visually compared with identical untreated tiles, stone, or concrete. The test period must be appropriate so that the effect can be detected.

The applicant must show that the product is effective in relation to the claims of the product. The applicant must describe the test method, send photo documentation, and describe how the results are evaluated.

For other claims, the applicant must perform tests that demonstrate compliance with the claims on the product. The applicant must state the test method, any data, how the results are evaluated and send photo documentation.

If there is no relevant quality test for a specific type of impregnating agent, Nordic Ecolabelling can extend the requirements for quality tests during the validity of the criteria to include other relevant tests.

- Test report for EN 13892-4, which clearly shows that the requirement is met.
- For claims: Test report with the test method description, possible data, description of how results are evaluated and photo documentation.

13 Mortar and plaster

O31 Volatile aromatic compounds (VAC)

For ready-mixed mortars and plasters, volatile aromatic compounds (VAC) must not be actively added to the product but may occur as residuals to a total maximum of 100 ppm (0.01 w%, 100 mg/kg) in the final product.

Volatile aromatic compounds are volatile organic compounds where one or more benzene rings are contained within the molecule.

- Declaration in line with Appendix 1 from the manufacturer of the product and Appendix 2 from the manufacturer of each raw material.
- Calculation of the level of volatile aromatic compounds in the product (based on data for all ingoing raw materials).

O32 Volatile organic compounds (VOC)

Ready-mixed mortars and plasters may contain a maximum of 1.0% by weight volatile organic compounds.

Note that if, during use, volatile organic compounds form, these must meet all applicable obligatory requirements.

- Declaration in line with Appendix 1 from the manufacturer of the product and Appendix 2 from the manufacturer of each raw material.
- Calculation of the level of volatile organic compounds in the product (based on data for all ingoing raw materials).

O33 Emission of total volatile compounds (TVOC) and total semi-volatile organic compounds in internal plasters and mortars

For internal plasters and mortars, the emissions of carcinogenic VOC and Total Volatile Organic Compounds (TVOCs) must not exceed limits given in Table 13.

Emissions of total Semi-Volatile Organic Compounds (TSVOCs) are not covered by a limit value but must be reported for the product.

For internal plasters and mortars, the emission of TVOCs, TSVOCs and carcinogenic VOC shall be determined by the filler with the highest theoretical amount of TVOC, TSVOC, and carcinogenic VOC from the contribution of raw materials.

Note: If the product is intended for both outdoor and indoor use, it must meet the requirements concerning indoor plaster and mortar.

Test method: Emission testing after 28-days according to EN 16516 or EN 16402 or other equivalent test methods.

The test laboratory must fulfil the requirements in Appendix 4.

Table 13 Emission limits for the final product for plasters and mortars after 28 days

Product description	1A and 1B carcinogenic VOC*	TVOC	TSVOC
Indoor plaster and mortar	≤ 0,001 mg/m ³	≤ 0,06 mg/m ³	-

* Carcinogenic 1A and 1B VOCs listed in Annex H of EN 16516.

- Test report in accordance with EN 16516, EN 16402 or other equivalent standardised test conditions and determination methods.

- ☒ Documentation showing that the test laboratory fulfils the requirements in Appendix 4.

O34 Quality requirement for mortars and plasters

Mortars are subjected to testing according to EN 1015-11, EN 1015-12 and EN 1015-18, while plasters are subjected to testing according to EN 998-1 and EN 998-2 where the report shall show results for compressive strength, bond strength and durability. The product must live up to the values listed in table below and the specific use of the mortar or plaster must be described and fulfilled if applicable.

If there is no relevant quality test for a specific type of mortar or plaster, Nordic Ecolabelling can extend the requirements for quality tests during the validity of the criteria to include other relevant tests.

Table 14 Quality requirement for mortars

Test method	Result
Compressive strength according to EN 1015-11	<p>Mortars intended for general purpose applications must not exceed a compressive strength of 5 MPa or higher at 28 days with conditions according to EN 1015-11.</p> <p>Mortars intended for specialized structural applications, such as load-bearing elements, must not exceed a compressive strength of 10 MPa or higher at 28 days with conditions according to EN 1015-11.</p>
Bond strength according to EN 1015-12	<p>Mortars intended for general masonry applications must not exceed a bond strength of 0.20 MPa or higher at 28 days.</p> <p>Mortars intended for specialized structural applications that requires enhanced adhesion, must not exceed a bond strength of 0.25 MPa or higher at 28 days.</p>
Durability according to EN 1015-18	<p>Mortars for outdoor use intended for general purpose applications must exhibit durability through resistance to freeze-thaw cycles, carbonation and other environmental factors.</p> <p>Mortars for application in aggressive environments (e.g., marine or industrial settings) must meet the criteria for general purpose applications as well as resistance to chemical.</p>

Table 15 Quality requirement for rendering mortars and plasters

Test method	Result
Compressive strength according to EN 998-1	<p>Rendering mortars and plasters intended for general purpose applications must not exceed a compressive strength of 5 MPa or higher at 28 days with conditions according to EN 998-1.</p> <p>Rendering mortars and plasters intended for specialized structural applications, such as load-bearing elements, must not exceed a compressive strength of 15 MPa or higher at 28 days with conditions according to EN 998-1.</p>
Bond strength according to EN 998-1	<p>Rendering mortars and plasters intended for general masonry applications must exhibit a minimum bond strength of 0.10 MPa at 28 days.</p> <p>Rendering mortars and plasters intended for specialized structural applications that requires enhanced adhesion, must exhibit a minimum bond strength of 0.20 MPa at 28 days.</p>
Durability according to EN 998-2	<p>Rendering mortars and plasters for outdoor use intended for general purpose applications must exhibit durability through resistance to freeze-thaw cycles, carbonation and other environmental factors.</p> <p>Rendering mortars and plasters for application in aggressive environments (e.g., marine or industrial settings) must meet the criteria for general purpose applications as well as resistance to chemical.</p>

- ☒ Test report according to EN 1015-11, EN 1015-12 and EN 1015-18 or EN 998-1 and EN 998-2 clearly showing the requirement being met.
- ☒ Documentation showing that the test laboratory fulfils the requirements in Appendix 4.

14 Requirements concerning packaging, labelling, consumer information, and recycling

O35 Packaging

If the packaging material contains plastic the following requirement must be met:

- Plastic packaging must contain a minimum of 30 weight% recycled material*.

Packaging made from aluminium is not allowed for use.

Exemption to recycled material is given for the following packaging types:

- Packaging (e.g., pouches) that amounts to less than 25 grams per litre of product.
- Aluminium packaging for sealants that amounts to less than 25 grams per litre of product.
- Putty bags.
- Plastic cartridges for sealants.
- Soft-tubes for fillers.

Information on how the packaging should be sorted as dried or emptied must be written on the packaging (see requirement O35).

* *Recycled material is defined in the requirement according to ISO 14021 in the following two categories:*

“Pre-consumer/commercial” is defined as material diverted from the waste stream during a manufacturing process. Excluded is reutilization of materials such as rework, regrind or scrap generated in a process and capable of being reclaimed within the same process that generated it. Nordic Ecolabelling defines rework, regrind or scrap, that cannot be recycled directly in the same process, but requires a reprocessing (e.g., sorting, reclamation and granulation) before it can be recycled, to be pre-consumer/commercial material. This is whether it is produced in-house or externally.

“Post-consumer/commercial” is defined as material generated by households or by commercial, industrial and institutional facilities in their role as end-users of the product, which can no longer be used for its intended purpose. This includes returns of material from the distribution chain.

- ☒ Description and documentation from plastic manufacturers showing that the plastic is recycled in compliance with the requirement’s definition or has EuCertPlast certification or Global Recycled Standard certification.
- ☒ Calculation or statement from the packaging manufacturer showing the percentage of recycled plastic in the packaging.

O36 Consumer information

The following information must be stated on the packaging. If there are any space issues, parts of the text can be moved to the technical data sheet or can be made available at the manufacturer's website with information. In addition, parts of the text can be translated into symbols.

- The purpose, substrate, and other conditions of application for which the product is intended. This shall include advice on preparation, e.g., correct preparation of the substrate or temperature.
- Estimate of “normal” coverage (e.g., l/m² or equivalent).
- Recommended preventive safety measures for users, such as safety equipment and ventilation (particularly when working in enclosed spaces or similar).
- The label must contain information on how the packaging should be sorted in the relevant country of sale. If the relevant country of sale has any possibility to sort the empty and dry packaging, then information must be placed on the packaging that it should be sorted as plastic or metal recycling.
- Remove the handle before sorting (only relevant if the handle is made of metal).

- Information that liquid products or residues must not be emptied down the drain but delivered to an approved hazardous waste collection point.
 - Recommendations on cleaning used tools and how waste products from cleaning can best be disposed of (to limit water pollution). These recommendations are to be adapted to the product types and areas of application. Pictograms may also be used where appropriate.
 - Recommendations on how the product is to be stored after opening, including safety instructions where relevant.
- Label, product sheet or equivalent and description of how the information accompanies each product.

15 Licence maintenance

The purpose of the licence maintenance is to ensure that fundamental quality assurance is dealt with appropriately.

O37 Customer complaints

The licensee must guarantee that the quality of the Nordic Swan Ecolabelled product or service does not deteriorate during the validity period of the licence. Therefore, the licensee must keep an archive over customer complaints.

Note that the original routine must be in one Nordic language or in English.

- Upload your company's routine for handling and archiving customer complaints.

O38 Traceability

The licensee must be able to trace the Nordic Swan Ecolabelled products in the production. A manufactured / sold product should be able to trace back to the occasion (time and date) and the location (specific factory) and, in relevant cases, also which machine / production line where it was produced. In addition, it should be possible to connect the product with the actual raw material used.

You can upload your company's routine or a description of the actions to ensure traceability in your company.

Regulations for the Nordic Ecolabelling of products

When the Nordic Swan Ecolabel is used on products the licence number shall be included.

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

Follow-up inspections

Nordic Ecolabelling may decide to check whether chemical building products 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 the chemical building product does not meet the requirements.

Random samples may also be taken in-store and analysed by an independent laboratory. If the requirements are not met, Nordic Ecolabelling may charge the analysis costs to the licensee.

Future criteria generation

- Determine environmental gains with energy requirement for polymer producers.
- Evaluate the possibility of stricter requirement for biobased binders.
- Evaluate the possibility of requiring a larger amount of recycled plastic in packaging materials.
- Evaluate the possibility of setting a requirement for biobased plastic in packaging materials.

Criteria version history

Nordic Ecolabelling adopted version 3 of the criteria of chemical building products on 2 December 2024. The criteria are valid until 2 December 2029.

How to apply and regulations for the Nordic Ecolabeling

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. For contact information see first in this document. Further information and assistance (such as calculation sheets or electronic application help) may be available. Visit the relevant national website for further information.

Follow-up inspections

Nordic Ecolabelling may decide to check whether chemical building products fulfil 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 chemical building products does not meet the requirements.

Random samples may also be taken in-store and analysed by an independent laboratory. If the requirements are not met, Nordic Ecolabelling may charge the analysis costs to the licensee.

Regulations for the Nordic Ecolabelling of products

When the Nordic Swan Ecolabel is used on products the licence number shall be included.

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

Appendix 1 Declaration from the manufacturer of the chemical building product

To be used in conjunction with an application for a licence for the Nordic Ecolabelling chemical building product. To complete the following declaration, you will need declarations for all raw materials (Appendix 2 or equivalent declaration) and Appendix 3 or equivalent declaration).

Declaration is made by the manufacturer based to the best of their knowledge at the given time, also based on information from raw material manufacturers, recipe, and available knowledge on the chemical product with reservations for new advances and new knowledge. Should such new knowledge arise, the undersigned is obliged to submit an updated declaration to Nordic Ecolabelling.

Product name: _____

Product's function/product group (e.g., filler, sealant, adhesive):

The requirements in the criteria document and accompanying appendices apply to all ingoing substances in the Nordic Swan Ecolabelled chemical building product. Impurities are not regarded as ingoing substances and are exempt from the requirements.

Ingoing substances and impurities are here defined as below, unless stated otherwise in the requirements. Be aware that these are not the same definitions as in REACH ((EU) 1907/2006) and CLP ((EU) 1272/2008).

- Ingoing substances: all substances in the Nordic Swan Ecolabelled 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.
- Impurities: residuals, pollutants, contaminants etc. from production, incl. production of raw materials, that remain in the Nordic Swan Ecolabelled product in concentrations less than 100 ppm (0,0100 w%).
- Impurities in the raw materials exceeding concentrations of 10 000 ppm (1.0000 w%) are always regarded as ingoing substances, regardless of the concentration in the Nordic Swan Ecolabelled 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.

The impurity limit of 100 ppm (0.0100 w%) applies to each individual substance that is excluded, i.e., Impurities with the same classification in different raw materials shall not be summed up to comply with the limit. The same contaminants in different raw materials also do not need to be summed.

O2 Classification of the product		
Is the product classified with any of the hazard phrases below? <i>Including all combinations of stated exposure routes and stated specific effect. For example, H350 also covers classification H350i.</i>	Yes	No
If the answer to all the classifications below is No, mark here		<input type="checkbox"/>
H400 – Toxic to aquatic life, Acute 1	<input type="checkbox"/>	<input type="checkbox"/>
H410 – Toxic to aquatic life, Chronic 1	<input type="checkbox"/>	<input type="checkbox"/>
H411 – Toxic to aquatic life, Chronic 2	<input type="checkbox"/>	<input type="checkbox"/>
H412 – Toxic to aquatic life, Chronic 3	<input type="checkbox"/>	<input type="checkbox"/>
H413 – Toxic to aquatic life, Chronic 4	<input type="checkbox"/>	<input type="checkbox"/>
H350 – May cause cancer, hazard category 1A and 1B	<input type="checkbox"/>	<input type="checkbox"/>
H351 – Suspected of causing cancer, hazard category 2	<input type="checkbox"/>	<input type="checkbox"/>
H340 – May cause genetic defects, hazard category 1A and 1B	<input type="checkbox"/>	<input type="checkbox"/>
H341 – May cause genetic defects, hazard category 2	<input type="checkbox"/>	<input type="checkbox"/>
H360 – Toxic for reproduction, hazard category 1A and 1B	<input type="checkbox"/>	<input type="checkbox"/>
H361 – Toxic for reproduction, hazard category 2	<input type="checkbox"/>	<input type="checkbox"/>
H362 – Toxic for reproduction, effects on or through breastfeeding (supplementary cat.)	<input type="checkbox"/>	<input type="checkbox"/>
H300 – Acute toxicity	<input type="checkbox"/>	<input type="checkbox"/>
H310 – Acute toxicity	<input type="checkbox"/>	<input type="checkbox"/>
H330 – Acute toxicity	<input type="checkbox"/>	<input type="checkbox"/>
H301 – Acute toxicity	<input type="checkbox"/>	<input type="checkbox"/>
H311 – Acute toxicity	<input type="checkbox"/>	<input type="checkbox"/>
H331 – Acute toxicity	<input type="checkbox"/>	<input type="checkbox"/>
H302 – Acute toxicity	<input type="checkbox"/>	<input type="checkbox"/>
H312 – Acute toxicity	<input type="checkbox"/>	<input type="checkbox"/>
H332 – Acute toxicity	<input type="checkbox"/>	<input type="checkbox"/>
H370 – Specific target organ toxicity: single exposure and repeated exposure	<input type="checkbox"/>	<input type="checkbox"/>
H371 – Specific target organ toxicity: single exposure and repeated exposure	<input type="checkbox"/>	<input type="checkbox"/>
H372 – Specific target organ toxicity: single exposure and repeated exposure	<input type="checkbox"/>	<input type="checkbox"/>
H373 – Specific target organ toxicity: single exposure and repeated exposure	<input type="checkbox"/>	<input type="checkbox"/>
H304 – Aspiration hazard	<input type="checkbox"/>	<input type="checkbox"/>
H334 – Respiratory sensitising	<input type="checkbox"/>	<input type="checkbox"/>
H317 – Skin sensitising	<input type="checkbox"/>	<input type="checkbox"/>
H200 – Unstable explosive	<input type="checkbox"/>	<input type="checkbox"/>
H201 – Explosive: mass explosion hazard	<input type="checkbox"/>	<input type="checkbox"/>
H202 – Explosive: severe projection hazard	<input type="checkbox"/>	<input type="checkbox"/>
H203 – Explosive: fire, blast or projection hazard	<input type="checkbox"/>	<input type="checkbox"/>
H204 – Fire or projection hazard	<input type="checkbox"/>	<input type="checkbox"/>
H205 – May mass explode in fire	<input type="checkbox"/>	<input type="checkbox"/>
H206 – Fire, blast, or projection hazard: increased risk of explosion if desensitizing agent is reduced	<input type="checkbox"/>	<input type="checkbox"/>
H271 – May cause fire or explosion: strong oxidizer	<input type="checkbox"/>	<input type="checkbox"/>
H272 – May intensify fire: oxidizer	<input type="checkbox"/>	<input type="checkbox"/>
H240 – Heating may cause an explosion	<input type="checkbox"/>	<input type="checkbox"/>
H241 – Heating may cause a fire or explosion	<input type="checkbox"/>	<input type="checkbox"/>

H242 – Heating may cause a fire	<input type="checkbox"/>	<input type="checkbox"/>
H222 – Flammable material	<input type="checkbox"/>	<input type="checkbox"/>
H224 – Extremely flammable liquid and vapour	<input type="checkbox"/>	<input type="checkbox"/>
EUH380 – Endocrine disruption for human health, category 1	<input type="checkbox"/>	<input type="checkbox"/>
EUH381 – Endocrine disruption for human health, category 2	<input type="checkbox"/>	<input type="checkbox"/>
EUH430 – Endocrine disruption for the environment, category 1	<input type="checkbox"/>	<input type="checkbox"/>
EUH431 – Endocrine disruption for the environment, category 2	<input type="checkbox"/>	<input type="checkbox"/>
EUH440 – Persistent, Bioaccumulative and Toxic properties	<input type="checkbox"/>	<input type="checkbox"/>
EUH441 – Very Persistent, Very Bioaccumulative properties	<input type="checkbox"/>	<input type="checkbox"/>
EUH450 – Persistent, Mobile, and Toxic properties	<input type="checkbox"/>	<input type="checkbox"/>
EUH451 – Very Persistent, Very Mobile properties	<input type="checkbox"/>	<input type="checkbox"/>

If the answer to any of the above questions is Yes, state the CAS no. (where possible), chemical name and level (in ppm, w% or mg / kg). Also state whether the substance is contained in the form of an impurity or an added substance.

O3 Classification of incoming substances		
Does the product contain substances classified with any of the hazard phrases below? <i>Including all combinations of stated exposure routes and stated specific effect. For example, H350 also covers classification H350i.</i>	Yes	No
If the answer to all the classifications below is No, mark here		<input type="checkbox"/>
H350 – May cause cancer, hazard category 1A and 1B	<input type="checkbox"/>	<input type="checkbox"/>
H351 – Suspected of causing cancer, hazard category 2	<input type="checkbox"/>	<input type="checkbox"/>
H340 – May cause genetic defects, hazard category 1A and 1B	<input type="checkbox"/>	<input type="checkbox"/>
H341 – May cause genetic defects, hazard category 2	<input type="checkbox"/>	<input type="checkbox"/>
H360 – Toxic for reproduction, hazard category 1A and 1B	<input type="checkbox"/>	<input type="checkbox"/>
H361 – Toxic for reproduction, hazard category 2	<input type="checkbox"/>	<input type="checkbox"/>
H362 – Toxic for reproduction, effects on or through breastfeeding (supplementary category)	<input type="checkbox"/>	<input type="checkbox"/>
H334 – Respiratory sensitising 1 / 1A / 1B	<input type="checkbox"/>	<input type="checkbox"/>
H370 – Specific organic toxicity, STOT SE 1	<input type="checkbox"/>	<input type="checkbox"/>
H372 – Specific organic toxicity, STOT RE 1	<input type="checkbox"/>	<input type="checkbox"/>
EUH380 – Endocrine disruption for human health, category 1	<input type="checkbox"/>	<input type="checkbox"/>
EUH381 – Endocrine disruption for human health, category 2	<input type="checkbox"/>	<input type="checkbox"/>
EUH430 – Endocrine disruption for the environment, category 1	<input type="checkbox"/>	<input type="checkbox"/>
EUH431 – Endocrine disruption for the environment, category 2	<input type="checkbox"/>	<input type="checkbox"/>
EUH440 – Persistent, Bioaccumulative and Toxic properties	<input type="checkbox"/>	<input type="checkbox"/>
EUH441 – Very Persistent, Very Bioaccumulative properties	<input type="checkbox"/>	<input type="checkbox"/>
EUH450 – Persistent, Mobile, and Toxic properties	<input type="checkbox"/>	<input type="checkbox"/>
EUH451 – Very Persistent, Very Mobile properties	<input type="checkbox"/>	<input type="checkbox"/>

If the answer to any of the above questions is Yes, state the CAS no. (where possible), chemical name and level (in ppm, w% or mg / kg). Also state whether the substance is contained in the form of an impurity or an added substance. If it is residual monomers in polymers, please state in point O7 instead.

O4 Environmentally harmful substances		
Does the product contain any substances classified as harmful to the environment with the following risk phrases or combinations of them?	Yes	No
H410 – Toxic to aquatic life, Chronic 1	<input type="checkbox"/>	<input type="checkbox"/>
H411 – Toxic to aquatic life, Chronic 2	<input type="checkbox"/>	<input type="checkbox"/>
H412 – Toxic to aquatic life, Chronic 3	<input type="checkbox"/>	<input type="checkbox"/>

If the answer to any of the above questions is Yes, state the CAS no. (where possible), chemical name and level (in ppm, w% or mg / kg). Also state whether the substance is a preservative.

O4 Environmentally harmful substances		
Does the product fulfil the requirement regarding maximum content of substances classified as harmful to the environment?	Yes	No
	<input type="checkbox"/>	<input type="checkbox"/>

Please do calculation below clearly showing that requirement is fulfilled:

O5 Preservatives		
Does the product contain any preservatives?	Yes	No
	<input type="checkbox"/>	<input type="checkbox"/>
If yes, please state: Does the preservatives comply with product-type 6 and product-type 7 according to Regulation (EU) No 528/2012 (The Biocidal Products Regulation)?	<input type="checkbox"/>	<input type="checkbox"/>
If yes, please state: Does the product fulfil the requirement regarding maximum contents of preservatives and total isothiazolinones according to Table 3 of the criteria document?	<input type="checkbox"/>	<input type="checkbox"/>

If the answer to any of the above questions is Yes, state the CAS no. (where possible), chemical name and level (in ppm, w% or mg / kg) and calculation showing that the requirement for total amount of preservatives and isothiazolinones is fulfilled.

O6 Formaldehyde		
Does the product contain formaldehyde or formaldehyde releasing agents?	Yes	No
If yes , please state: Is the product only used in an indoor environment? If yes , please attach test report according to requirement O6 for in-can measurement and emission test, e.g., EPA 8315A, VdL-RL03, Merckoquant method, and EN 16516	<input type="checkbox"/>	<input type="checkbox"/>
If yes , please state: Is the product only used in an outdoor environment? If yes , please attach test report according to requirement O6 for in-can measurement e.g., EPA 8315A, VdL-RL03, Merckoquant method, HPLC	<input type="checkbox"/>	<input type="checkbox"/>
O7 Residual monomers		
Does the product contain residual monomers in polymers present in product > 1% classified with any of the hazard phrases below? Including all combinations of stated exposure routes and stated specific effect. For example, H350 also covers classification H350i.	Yes	No
If the answer to all the classifications below is No, mark here		<input type="checkbox"/>
H350 – May cause cancer, hazard category 1A and 1B	<input type="checkbox"/>	<input type="checkbox"/>
H351 – Suspected of causing cancer, hazard category 2	<input type="checkbox"/>	<input type="checkbox"/>
H340 – May cause genetic defects, hazard category 1A and 1B	<input type="checkbox"/>	<input type="checkbox"/>
H341 – May cause genetic defects, hazard category 2	<input type="checkbox"/>	<input type="checkbox"/>
H360 – Toxic for reproduction, hazard category 1A and 1B	<input type="checkbox"/>	<input type="checkbox"/>
H361 – Toxic for reproduction, hazard category 2	<input type="checkbox"/>	<input type="checkbox"/>
H362 – Toxic for reproduction, effects on or through breastfeeding (supplementary category)	<input type="checkbox"/>	<input type="checkbox"/>
H334 – May cause allergy or asthma symptoms or breathing difficulties if inhaled 1 / 1A / 1B	<input type="checkbox"/>	<input type="checkbox"/>
H370 – Specific target organ toxicity: STOT SE 1 or 2	<input type="checkbox"/>	<input type="checkbox"/>
H371 – Specific target organ toxicity: STOT SE 1 or 2	<input type="checkbox"/>	<input type="checkbox"/>
H372 – Specific target organ toxicity: STOT RE 1 or 2	<input type="checkbox"/>	<input type="checkbox"/>
H373 – Specific target organ toxicity: STOT RE 1 or 2	<input type="checkbox"/>	<input type="checkbox"/>

If the answer to any of the above questions is Yes, state the CAS no. (where possible), chemical name and level (in ppm, w% or mg / kg) of residual monomers in newly produced polymers and based on the content in the raw material. (If vinyl acetate is present in an amount over 100 ppm, please also state the amount in ppm in each polymer).

O8 Heavy metals		
Does the product contain any heavy metals (cadmium, lead, chromium VI, mercury, arsenic, barium, selenium, antimony)? <i>Traces of the above-mentioned metals from residuals can be included up to 100 ppm (100 mg/kg, 0.0100 w%) per single metal in the raw material.</i> <i>- Residual lead in mortars and plasters can be included up to 200 ppm (200 mg/k, 0.0200w%).</i> <i>- Barium sulphate and other insoluble barium compounds are exempted.</i> <i>- An exception is made for antimony in pigments contained in a TiO₂ rutile lattice on the following terms: test results must prove that the molecular structure is inert and that the environmental and health effects of the pigment are on the same level as, or better than, the results for C.I Pigment Brown 24 CAS no. 68186-90-3 and C.I Pigment Yellow 53 CAS no. 8007-18-9 in the report: UNEF Publications, OECD SIDS Initial Assessment Profile (www.inchem.org)*.</i>	Yes <input type="checkbox"/>	No <input type="checkbox"/>

If the answer to any of the above questions is Yes, state the chemical name and level (in ppm, w% or mg / kg) for the soluble or bioavailable amount e.g., via HCl extract, analysis or DIN 53770-1 or similar methods.

O9 Titanium dioxide		
Does the product contain titanium dioxide?	Yes <input type="checkbox"/>	No <input type="checkbox"/>

If yes, please state amount in w% and raw material manufacturer name. If the product contains more than 3.0 w% titanium dioxide, the raw material manufacturer must supply information in accordance with requirement O9 and O10 in the criteria document.

O10 Powdered raw materials		
Have any of the raw materials used in the product been in powder form?	Yes <input type="checkbox"/>	No <input type="checkbox"/>

If yes, please attach documentation describing how powdered raw materials have been handled during the production process in accordance with requirement O10 in the criteria document.

O11 Nanomaterials/-particles		
<p>Does the product contain nanomaterials/-particles?</p> <p><i>Nanomaterials/-particles are defined according to the EU Commission Recommendation on the Definition of Nanomaterial (2022/C 229/01):</i></p> <p><i>'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:</i></p> <p><i>(a) one or more external dimensions of the particle are in the size range 1 nm to 100 nm;</i></p> <p><i>(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;</i></p> <p><i>(c) the particle has a plate-like shape, where one external dimension is smaller than 1 nm and the other dimensions are larger than 100 nm.</i></p> <p>The following are exempted from the requirement:</p> <ul style="list-style-type: none"> <i>Pigments. This exemption does not apply to pigment added for other purposes than imparting colour. Please note that Nano-TiO₂ is not considered a pigment.</i> <i>Naturally occurring inorganic fillers. This exemption applies to fillers subject to Annex V, paragraph 7 of REACH.</i> <i>Synthetic amorphous silica (SAS). This exemption applies to non-modified SAS. Chemically modified colloidal silica can be included in the products if the silica particles form aggregates in the final product. Surface-treated nanoparticles must fulfil requirement O3 (Classification of constituent chemical substances) and requirement O12 (Prohibited substances).</i> <i>Unmodified calcium carbonate (grounded calcium carbonate, GCC) and unmodified precipitated calcium carbonate (PCC).</i> <i>Polymer dispersions.</i> 	Yes <input type="checkbox"/>	No <input type="checkbox"/>

If yes, please state if one of the above exceptions apply and add additional information if needed:

O12 Prohibited substances		
Does the product contain any of the following substances or substance groups?	Yes	No
If the answer to all the bulletins below is No, mark here		<input type="checkbox"/>
Substances on the REACH Candidate list of SVHC: http://echa.europa.eu/candidate-list-table	<input type="checkbox"/>	
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 and substances that have not yet been investigated, but which meet these criteria.	<input type="checkbox"/>	<input type="checkbox"/>
Potential or identified endocrine disruptors according to any of the EU member state initiative "Endocrine Disruptor list" List I; List II; and/or List III <ul style="list-style-type: none"> 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 Substances on the List II sublist "Substances no longer on list"? https://edlists.org/the-ed-lists/substances-no-longer-on-list-ii <p><i>If Yes, please write chemical name and Cas no. below. Nordic Ecolabelling will evaluate the circumstances on a case-by-case basis, through the background information indicated for the substance on the sublist.</i></p> <ul style="list-style-type: none"> <i>2,2-dibromo-2-cyanoacetamide (DBNPA) used for disinfecting process water is exempted from the requirement as it is not constituent or part of the manufacturing of the product.</i> <i>Butylated hydroxytoluene (BHT, CAS. No 128-37-0) exempted from the requirement up to 100 ppm in the final product</i> 	<input type="checkbox"/>	<input type="checkbox"/>
Organotin compounds	<input type="checkbox"/>	<input type="checkbox"/>
Phthalates - Esters of phthalic acid (ortho-phthalic acid / phthalic acid / 1,2- benzene dicarboxylic acid)	<input type="checkbox"/>	<input type="checkbox"/>
Bisphenols and bisphenol derivatives: <i>EC/List No. 201-245-8 (BPA), 201-025-1 (BPB), 401-720-1 (4,4'-Isobutylethylidenediphenol), 216-036-7 (BPAF) and its 8 salts (278-305-5; 425-060-9; 443-330-4; 468-740-0; 469-080-6; 479-100-5; 943-265-6; 947-368-7), 201-250-5 (BPS), 201-240-0 (BPC), 204-279-1 (TBMD), 201-618-5 (6,6'-di-tert-butyl-4,4'-butylidenedi-m-cresol), 242-895-2, 248-607-1, 405-520-5 (D8), 217-121-1 (DAB), 227-033-5 (TMBPA), 210-658-2 (BPF), 411-570-9, 277-962-5 (contains BPS), 500-086-4 (contains BPA), 500-263-6 (contains BPA), 500-607-5 (contains BPA), 701-362-9, 904-653-0 (contains BPA), 908-912-9 (contains BPF), 926-571-4 (contains BPA), 931-252-8 (contains BPA), 941-992-3 (contains BPS), 943-503-9 (contains BPA).</i>	<input type="checkbox"/>	<input type="checkbox"/>
APEO – alkylphenol ethoxylates and alkylphenol derivatives (substances that release alkylphenols on degradation).	<input type="checkbox"/>	<input type="checkbox"/>
Perfluorinated and polyfluorinated alkyl substances (PFAS)	<input type="checkbox"/>	<input type="checkbox"/>
Halogenated organic substances Exempted* are: <ul style="list-style-type: none"> Preservatives that fulfil O5 Pigments that meet the EU's requirements concerning colourants in food packaging under Resolution AP (89) point 2.5 <p><i>* Perfluorinated and polyfluorinated alkyl substances are covered by their own bulletin and are not included in this exemption.</i></p>	<input type="checkbox"/>	<input type="checkbox"/>
Isocyanates Water-based polyisocyanates with a chain length of more than 10 are exempted, where the concentration of isocyanates with a chain length of less than 10 as an impurity is documented.	<input type="checkbox"/>	<input type="checkbox"/>

Fragrances	<input type="checkbox"/>	<input type="checkbox"/>
Boric acid, borates, and perborates	<input type="checkbox"/>	<input type="checkbox"/>
Ethylenediamine tetraacetate (EDTA) and its salts and Diethylenetriamine pentaacetate (DTPA) are limited to 0,1% in the final product.	<input type="checkbox"/>	<input type="checkbox"/>
<p>If the answer to any of the above questions is Yes, state the CAS no. (where possible), chemical name and level (in ppm, w% or mg / kg). If an exemption applies as above, please attach document as appropriate.</p> <p>_____</p> <p>_____</p> <p>_____</p>		
O13 Acryl and alkyd resin binders		
Please state:	Yes	No
Does the product contain acrylic resins*?	<input type="checkbox"/>	<input type="checkbox"/>
<p><i>* Synthetic resin resulting from the polymerization or copolymerization of acrylic and/or methacrylic monomers, frequently together with other monomers e.g., styrene.</i></p>		
Is the acrylic resin based on renewable raw material or feedstock?	<input type="checkbox"/>	<input type="checkbox"/>
Does the product contain alkyd resins?	<input type="checkbox"/>	<input type="checkbox"/>

If the answer to the above questions is Yes, state the proportion of acrylic/alkyd resins made from renewable raw material. Please attach enclosed procedures for policy or equivalent documentation of the work with environmental goals, showing fulfilment of the requirement. The manufacturer of the raw material must enclose documentation in accordance with appendix 4 and documentation showing valid certificates if palm oil is used for acrylic resins.

O15, O19, O23, O27, and/or O31 Volatile Aromatic Compounds		
Please state the following:	Yes	No
Does the product contain any Volatile Aromatic Compounds (VAC)? <i>Volatile aromatic compounds are volatile organic compounds where one or more benzene rings are contained within the molecule.</i>	<input type="checkbox"/>	<input type="checkbox"/>
<p>If yes, please state if actively added or as a residue in ppm:</p> <p>_____</p>		

O16, O20, O24, O28, and/or O32 Volatile Organic Compounds		
Please state the following:	Yes	No
Does the product contain Volatile Organic Compounds?	<input type="checkbox"/>	<input type="checkbox"/>
<p>If yes, please state the VOC content in % for the final product</p> <p>_____</p>		
<p>Definitions of VOC and SVOC</p> <p>Volatile organic compounds (VOC) mean any organic compounds having an initial boiling point less than or equal to 250 °C measured at a standard pressure of 101,3 kPa as defined in Directive 2004/42/EC and which, in a capillary column, are eluting up to and including n-Tetradecane (C14H30).</p> <p>Semi volatile organic compounds (SVOCs) mean any organic compound having a boiling point greater than 250 °C and less than 370 °C measured at a standard pressure of 101,3 kPa and which, in a capillary column are eluting with a retention range after n-Tetradecane (C14H30) and up to and including n-Docosane (C22H46).</p>		
O17, O21, O25, O29 and/or O33 Emissions of Volatile and Semi-Volatile Organic Compounds		
Please state: Which product category:	Yes	No
Adhesives	<input type="checkbox"/>	<input type="checkbox"/>
Sealants	<input type="checkbox"/>	<input type="checkbox"/>
Fillers, putty and levelling compound (screed)	<input type="checkbox"/>	<input type="checkbox"/>
Mortars and plasters	<input type="checkbox"/>	<input type="checkbox"/>
Does the emission of the final product meet the emission limits as stated in requirement O17, O21, O25 O29 and/or O33 ?	<input type="checkbox"/>	<input type="checkbox"/>
<p>Please attach test report in accordance with EN 16516, EN 16402 or other equivalent standardised test conditions and determination methods.</p> <p>TVOC and TSVOC are defined as stated in EN 16516 and carcinogenic 1A and 1B VOCs are listed in Annex H of EN 16516.</p>		

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

Appendix 2 Declaration from the manufacturer of the raw material

To be used in conjunction with an application for a licence for the Nordic Ecolabelling of chemical building product.

This declaration is based on the knowledge we have at the time of the application, based on tests and/or declarations from raw material manufacturers, with reservations for new advances and new knowledge. Should such new knowledge arise, the undersigned is obliged to submit an updated declaration to Nordic Ecolabelling.

For suppliers: If you do not have knowledge about the complete composition of the raw material/ingredient you are obliged to obtain this information from the manufacturer.

Raw material name: _____

Raw material's function: _____

The requirements in the criteria document and accompanying appendices apply to all ingoing substances in the Nordic Swan Ecolabelled product. Impurities are not regarded as ingoing substances and are exempt from the requirements.

Ingoing substances and impurities are here defined as below, unless stated otherwise in the requirements. Be aware that these are not the same definitions as in REACH ((EU) 1907/2006) and CLP ((EU) 1272/2008).

Ingoing substances: all substances in the Nordic Swan Ecolabelled 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.

Impurities: residuals, pollutants, contaminants etc. from production, incl. production of raw materials, that remain in the Nordic Swan Ecolabelled product in concentrations less than 100 ppm (0,0100 w%).

Impurities in the raw materials exceeding concentrations of 10 000 ppm (1.0000 w%) are always regarded as ingoing substances, regardless of the concentration in the Nordic Swan Ecolabelled 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.

The impurity limit of 100 ppm (0.0100 w%) applies to each individual substance that is excluded, i.e., Impurities with the same classification in different raw materials shall not be summed up to comply with the limit. The same contaminants in different raw materials also do not need to be summed.

O3 Classification of ingoing substances		
Does the raw material contain substances classified with any of the hazard phrases below? <i>Including all combinations of stated exposure routes and stated specific effect. For example, H350 also covers classification H350i.</i>	Yes	No
If the answer to all the classifications below is No, mark here		<input type="checkbox"/>
H350 – May cause cancer, hazard category 1A and 1B	<input type="checkbox"/>	<input type="checkbox"/>
H351 – Suspected of causing cancer, hazard category 2	<input type="checkbox"/>	<input type="checkbox"/>
H340 – May cause genetic defects, hazard category 1A and 1B	<input type="checkbox"/>	<input type="checkbox"/>
H341 – May cause genetic defects, hazard category 2	<input type="checkbox"/>	<input type="checkbox"/>
H360 – Toxic for reproduction, hazard category 1A and 1B	<input type="checkbox"/>	<input type="checkbox"/>
H361 – Toxic for reproduction, hazard category 2	<input type="checkbox"/>	<input type="checkbox"/>
H362 – Toxic for reproduction, effects on or through breastfeeding (supplementary category)	<input type="checkbox"/>	<input type="checkbox"/>
H334 – May cause allergy or asthma symptoms or breathing difficulties if inhaled 1 / 1A / 1B	<input type="checkbox"/>	<input type="checkbox"/>
H370 – Specific organic toxicity, STOT SE 1	<input type="checkbox"/>	<input type="checkbox"/>
H372 – Specific organic toxicity, STOT RE 1	<input type="checkbox"/>	<input type="checkbox"/>
EUH380 – Endocrine disruption for human health, category 1	<input type="checkbox"/>	<input type="checkbox"/>
EUH381 – Endocrine disruption for human health, category 2	<input type="checkbox"/>	<input type="checkbox"/>
EUH430 – Endocrine disruption for the environment, category 1	<input type="checkbox"/>	<input type="checkbox"/>
EUH431 – Endocrine disruption for the environment, category 2	<input type="checkbox"/>	<input type="checkbox"/>
EUH440 – Persistent, Bioaccumulative and Toxic properties	<input type="checkbox"/>	<input type="checkbox"/>
EUH441 – Very Persistent, Very Bioaccumulative properties	<input type="checkbox"/>	<input type="checkbox"/>
EUH450 – Persistent, Mobile, and Toxic properties	<input type="checkbox"/>	<input type="checkbox"/>
EUH451 – Very Persistent, Very Mobile properties	<input type="checkbox"/>	<input type="checkbox"/>

If the answer to any of the above questions is Yes, state the CAS no. (where possible), chemical name and level (in ppm, w% or mg / kg). Also state whether the substance is contained in the form of an impurity or an added substance. If it is residual monomers in polymers, please state in point O7 instead.

O4 Environmentally harmful substances		
Does the raw material contain any substances classified as harmful to the environment with the following risk phrases or combinations of them?	Yes	No
H410 – Toxic to aquatic life, Chronic 1	<input type="checkbox"/>	<input type="checkbox"/>
H411 – Toxic to aquatic life, Chronic 2	<input type="checkbox"/>	<input type="checkbox"/>
H412 – Toxic to aquatic life, Chronic 3	<input type="checkbox"/>	<input type="checkbox"/>

If the answer to any of the above questions is Yes, state the CAS no. (where possible), chemical name and level (in ppm, w% or mg / kg). Also state whether the substance is a preservative.

O5 Preservatives		
Please state:	Yes	No
Does the product contain any preservatives?	<input type="checkbox"/>	<input type="checkbox"/>
If yes , please state: Does the preservatives comply with product-type 6 and product-type 7 according to Regulation (EU) No 528/2012 (The Biocidal Products Regulation)?	<input type="checkbox"/>	<input type="checkbox"/>

If the answer to any of the above questions is Yes, state the CAS no. (where possible), chemical name and level (in ppm, w% or mg / kg) for each preservative.

O6 Formaldehyde		
Please state:	Yes	No
Does the raw material contain formaldehyde or formaldehyde releasing agents?	<input type="checkbox"/>	<input type="checkbox"/>
If yes , please specify source of formaldehyde, i.e., actively added or because of release or decomposition from another substance and theoretical amount of formaldehyde in the raw material:		

O7 Residual monomers		
Does the raw material contain residual monomers in polymers present in product > 1% classified with any of the hazard phrases below? Including all combinations of stated exposure routes and stated specific effect. For example, H350 also covers classification H350i.	Yes	No
If the answer to all the classifications below is No, mark here		<input type="checkbox"/>
H350 – May cause cancer, hazard category 1A and 1B	<input type="checkbox"/>	<input type="checkbox"/>
H351 – Suspected of causing cancer, hazard category 2	<input type="checkbox"/>	<input type="checkbox"/>
H340 – May cause genetic defects, hazard category 1A and 1B	<input type="checkbox"/>	<input type="checkbox"/>
H341 – May cause genetic defects, hazard category 2	<input type="checkbox"/>	<input type="checkbox"/>
H360 – Toxic for reproduction, hazard category 1A and 1B	<input type="checkbox"/>	<input type="checkbox"/>
H361 – Toxic for reproduction, hazard category 2	<input type="checkbox"/>	<input type="checkbox"/>
H362 – Toxic for reproduction, effects on or through breastfeeding (supplementary category)	<input type="checkbox"/>	<input type="checkbox"/>
H334 – May cause allergy or asthma symptoms or breathing difficulties if inhaled 1 / 1A / 1B	<input type="checkbox"/>	<input type="checkbox"/>
H370 – Specific target organ toxicity: STOT SE 1 or 2	<input type="checkbox"/>	<input type="checkbox"/>
H371 – Specific target organ toxicity: STOT SE 1 or 2	<input type="checkbox"/>	<input type="checkbox"/>
H372 – Specific target organ toxicity: STOT RE 1 or 2	<input type="checkbox"/>	<input type="checkbox"/>
H373 – Specific target organ toxicity: STOT RE 1 or 2	<input type="checkbox"/>	<input type="checkbox"/>

If the answer to any of the above questions is Yes, state the CAS no. (where possible), chemical name and level (in ppm, w% or mg / kg) of residual monomers in newly produced polymers and based on the content in the raw material. (If vinyl acetate is present in an amount over 100 ppm, please also state the amount in ppm in each polymer).

O8 Heavy metals		
Please state:	Yes	No
<p>Does the raw material contain any heavy metals (cadmium, lead, chromium VI, mercury, arsenic, barium, selenium, antimony)?</p> <p><i>Traces of the above-mentioned metals from residuals can be included up to 100 ppm (100 mg/kg, 0.0100 w%) per single metal in the raw material.</i></p> <p><i>- Residual lead in mortars and plasters can be included up to 200 ppm (200 mg/k, 0.0200w%).</i></p> <p><i>- Barium sulphate and other insoluble barium compounds are exempted.</i></p> <p><i>- An exception is made for antimony in pigments contained in a TiO₂ rutile lattice on the following terms: test results must prove that the molecular structure is inert and that the environmental and health effects of the pigment are on the same level as, or better than, the results for C.I Pigment Brown 24 CAS no. 68186-90-3 and C.I Pigment Yellow 53 CAS no. 8007-18-9 in the report: UNEF Publications, OECD SIDS Initial Assessment Profile (www.inchem.org)*.</i></p>	<input type="checkbox"/>	<input type="checkbox"/>

If the answer to any of the above questions is Yes, state the chemical name and level (in ppm, w% or mg / kg) for the soluble or bioavailable amount e.g., via HCl extract, analysis or DIN 53770-1 or similar methods.

O9 Titanium dioxide																
Does the raw material contain titanium dioxide?	Yes	No														
<p>As the supplier of TiO₂ for chemical building products that comply with the Nordic Swan, I hereby declare that: I the undersigned, undertake to formally respect the following values, concerning the production of Titanium dioxide on the following site(s):</p> <table border="1"> <tbody> <tr> <td>Sulphate process</td> <td>Limit</td> </tr> <tr> <td>SO_x expressed as SO₂:</td> <td>7.0 kg/tonne TiO₂</td> </tr> <tr> <td>Sulphate waste:</td> <td>500 kg/tonne TiO₂</td> </tr> <tr> <td>Chloride process</td> <td>Limit</td> </tr> <tr> <td>When using natural ore:</td> <td>103 kg chloride waste/tonne TiO₂</td> </tr> <tr> <td>When using synthetic ore:</td> <td>179 kg chloride waste/tonne TiO₂</td> </tr> <tr> <td>When using slag ore:</td> <td>329 kg chloride was/tonne TiO₂</td> </tr> </tbody> </table> <p>If more than one type of ore is used, the values apply proportionately to the ore type used.</p>	Sulphate process	Limit	SO _x expressed as SO ₂ :	7.0 kg/tonne TiO ₂	Sulphate waste:	500 kg/tonne TiO ₂	Chloride process	Limit	When using natural ore:	103 kg chloride waste/tonne TiO ₂	When using synthetic ore:	179 kg chloride waste/tonne TiO ₂	When using slag ore:	329 kg chloride was/tonne TiO ₂	<input type="checkbox"/>	<input type="checkbox"/>
Sulphate process	Limit															
SO _x expressed as SO ₂ :	7.0 kg/tonne TiO ₂															
Sulphate waste:	500 kg/tonne TiO ₂															
Chloride process	Limit															
When using natural ore:	103 kg chloride waste/tonne TiO ₂															
When using synthetic ore:	179 kg chloride waste/tonne TiO ₂															
When using slag ore:	329 kg chloride was/tonne TiO ₂															

As the supplier of TiO ₂ for chemical building products that comply with the Nordic Swan, I hereby declare that: I the undersigned, will attach document that shows that the manufacturing plant has full or pending implementation of an energy management system in accordance with ISO 50 001.	Yes <input type="checkbox"/>	No <input type="checkbox"/>
As the supplier of TiO ₂ for chemical building products that comply with the Nordic Swan, I hereby declare that: I the undersigned, will attach document to support how the raw material is added in closed systems, or in means of methods to promote a "low-dust" working environment.	<input type="checkbox"/>	<input type="checkbox"/>

If yes, please state amount in w%, and supply documentation in accordance with requirement O9 and O10 in the criteria document.

O11 Nanomaterials/-particles		
Does the raw material contain nanomaterials/-particles? <i>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 external dimension is smaller than 1 nm and the other dimensions are larger than 100 nm.</i>	Yes <input type="checkbox"/>	No <input type="checkbox"/>
The following are exempted from the requirement: <ul style="list-style-type: none"> • <i>Pigments. This exemption does not apply to pigments added for other purposes than imparting colour. Please note that Nano-TiO₂ is not considered a pigment.</i> • <i>Naturally occurring inorganic fillers. This exemption applies to fillers subject to Annex V, paragraph 7 of REACH.</i> • <i>Synthetic amorphous silica (SAS). This exemption applies to non-modified SAS. Chemically modified colloidal silica can be included in the products if the silica particles form aggregates in the final product. Surface-treated nanoparticles must fulfil requirement O3 (Classification of constituent chemical substances) and requirement O12 (Prohibited substances).</i> • <i>Unmodified calcium carbonate (grounded calcium carbonate, GCC) and unmodified precipitated calcium carbonate (PCC).</i> • <i>Polymer dispersions.</i> 		

If yes, please state if one of the above exceptions apply and add additional information if needed:

O12 Prohibited substances		
Does the raw material contain any of the following substances or substance groups?	Yes	No
If the answer to all the bulletins below is No, mark here		<input type="checkbox"/>
Substances on the REACH Candidate list of SVHC: http://echa.europa.eu/candidate-list-table	<input type="checkbox"/>	<input type="checkbox"/>
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 and substances that have not yet been investigated, but which meet these criteria.	<input type="checkbox"/>	<input type="checkbox"/>

<p>Potential or identified endocrine disruptors according to any of the EU member state initiative "Endocrine Disruptor list" List I; List II; and/or List III</p> <ul style="list-style-type: none"> 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 Substances on the List II sublist "Substances no longer on list"? https://edlists.org/the-ed-lists/substances-no-longer-on-list-ii <p><i>If Yes, please write chemical name and Cas no. below. Nordic Ecolabelling will evaluate the circumstances on a case-by-case basis, through the background information indicated for the substance on the sublist.</i></p> <ul style="list-style-type: none"> <i>2,2-dibromo-2-cyanoacetamide (DBNPA) used for disinfecting process water is exempted from the requirement as it is not constituent or part of the manufacturing of the product.</i> <i>Butylated hydroxytoluene (CAS. No 128-37-0) exempted from the requirement up to 100 ppm in the final product.</i> 	<p>Yes <input type="checkbox"/></p>	<p>No <input type="checkbox"/></p>
Organotin compounds	<input type="checkbox"/>	<input type="checkbox"/>
Phthalates Esters of phthalic acid (ortho-phthalic acid / phthalic acid / 1,2- benzene dicarboxylic acid)	<input type="checkbox"/>	<input type="checkbox"/>
<p>Bisphenol and bisphenol derivatives: <i>EC/List No. 201-245-8 (BPA), 201-025-1 (BPB), 401-720-1 (4,4'-Isobutylethylenediphenol), 216-036-7 (BPAF) and its 8 salts (278-305-5; 425-060-9; 443-330-4; 468-740-0; 469-080-6; 479-100-5; 943-265-6; 947-368-7), 201-250-5 (BPS), 201-240-0 (BPC), 204-279-1 (TBMD), 201-618-5 (6,6'-di-tert-butyl-4,4'-butylidenedi-m-cresol), 242-895-2, 248-607-1, 405-520-5 (D8), 217-121-1 (DAB), 227-033-5 (TMBPA), 210-658-2 (BPF), 411-570-9, 277-962-5 (contains BPS), 500-086-4 (contains BPA), 500-263-6 (contains BPA), 500-607-5 (contains BPA), 701-362-9, 904-653-0 (contains BPA), 908-912-9 (contains BPF), 926-571-4 (contains BPA), 931-252-8 (contains BPA), 941-992-3 (contains BPS), 943-503-9 (contains BPA).</i></p>	<input type="checkbox"/>	<input type="checkbox"/>
APEO – alkylphenol ethoxylates and alkylphenol derivatives (substances that release alkylphenols on degradation).	<input type="checkbox"/>	<input type="checkbox"/>
Perfluorinated and polyfluorinated alkyl substances (PFAS)	<input type="checkbox"/>	<input type="checkbox"/>
<p>Halogenated organic substances Exempted* are:</p> <ul style="list-style-type: none"> Preservatives that fulfil O5 Pigments that meet the EU's requirements concerning colourants in food packaging under Resolution AP (89) point 2.5 <p><i>* Perfluorinated and polyfluorinated alkyl substances are covered by their own bulletin and are not included in this exemption.</i></p>	<input type="checkbox"/>	<input type="checkbox"/>
Fragrances	<input type="checkbox"/>	<input type="checkbox"/>
Boric acid, borates, and perborates	<input type="checkbox"/>	<input type="checkbox"/>
Ethylenediamine tetraacetate (EDTA) and its salts and Diethylenetriamine pentaacetate (DTPA) are limited to 0,1% in the final product.	<input type="checkbox"/>	<input type="checkbox"/>

If the answer to any of the above questions is Yes, state the CAS no. (where possible), chemical name and level (in ppm, w% or mg / kg). If an exemption applies as above, please attach document as appropriate.

O13 Acrylic and alkyd resin binders		
Please state the following:	Yes	No
Does the raw material contain acrylic resins*?	<input type="checkbox"/>	<input type="checkbox"/>
* Synthetic resin resulting from the polymerization or copolymerization of acrylic and/or methacrylic monomers, frequently together with other monomers e.g., styrene.		
Does the raw material contain alkyd resins?	<input type="checkbox"/>	<input type="checkbox"/>
<p>If the raw material does not contain renewable acrylic or alkyd resins, disregard the following requirements.</p> <p>If the raw material contains acrylic or alkyd resins, please state the origin of renewable raw material in the raw material (e.g., castor oil, soybean oil, palm oil...)</p> <p>If the acrylic resin raw material contains palm oil (incl. by-products and waste fractions), please submit an RSPO-certificate. Alkyd resins may not contain renewable raw materials from palm oil.</p> <hr/> <hr/>		
Please state where the renewable raw materials used in the binder are derived from:		
No traceability	<input type="checkbox"/>	
Primary feedstock	<input type="checkbox"/>	
Residue	<input type="checkbox"/>	
Waste	<input type="checkbox"/>	
	Yes	No
Is the renewable raw material sustainability certified?	<input type="checkbox"/>	<input type="checkbox"/>
If yes, state the raw material sustainability certification system:		
<hr/>		
If a raw material sustainability certification system is used, state the level of traceability (shown in a Chain of Custody certificate where applicable)		
No traceability	<input type="checkbox"/>	
Identity preserved	<input type="checkbox"/>	
Segregated	<input type="checkbox"/>	
Mass Balance	<input type="checkbox"/>	
Book & Claim	<input type="checkbox"/>	

If the answer to the above questions is Yes, the manufacturer of the raw material must enclose documentation in accordance with requirement O13 and of the criteria and documentation showing that the requirements are met.

O14 Cement/Hydraulic binder		
Please state the following:	Yes	No
Does the raw material contain cement or alternative hydraulic binder?	<input type="checkbox"/>	<input type="checkbox"/>
Does the raw material contain white Portland cement?	<input type="checkbox"/>	<input type="checkbox"/>

If the answer to the above question is Yes, the raw material manufacturer must enclose documentation in accordance requirement O14 of the criteria document showing that the requirements are met.

O15, O19, O23, O27, and/or O31 Volatile Aromatic Compounds		
Please state the following:	Yes	No
Does the product contain any Volatile Aromatic Compounds (VAC)? <i>Volatile aromatic compounds are volatile organic compounds where one or more benzene rings are contained within the molecule.</i>	<input type="checkbox"/>	<input type="checkbox"/>
If yes , please state if actively added or as a residue in ppm: 		
O16, O20, O24, O28, and/or O32 Volatile Organic Compounds		
Please state the following:	Yes	No
Does the product contain Volatile Organic Compounds?	<input type="checkbox"/>	<input type="checkbox"/>
If yes , please state the VOC content in % for the final product. 		
Definitions of VOC and SVOC Volatile organic compounds (VOC) mean any organic compounds having an initial boiling point less than or equal to 250 °C measured at a standard pressure of 101,3 kPa as defined in Directive 2004/42/EC and which, in a capillary column, are eluting up to and including n-Tetradecane (C14H30). Semi volatile organic compounds (SVOCs) mean any organic compound having a boiling point greater than 250 °C and less than 370 °C measured at a standard pressure of 101,3 kPa and which, in a capillary column are eluting with a retention range after n-Tetradecane (C14H30) and up to and including n-Docosane (C22H46).		

Place and date:	Company name/stamp:
Is the company a manufacturer or other kind of supplier of the raw material? <input type="checkbox"/> Manufacturer <input type="checkbox"/> Other kind of supplier (please specify)	
Responsible person:	Signature of responsible person, electronic signature is accepted:
Phone:	Email:

Appendix 3 Example of recipe structure

Example of recipe structure to be used when applying for the Nordic Ecolabelling of chemical building products. The formulation should include a worst-case formulation detailing the use of minor adjustments that can be made during product, i.e., pH changes, and viscosity adjustments. If the formulation uses intervals in the production, intervals should be stated in the formulation sent to Nordic Ecolabelling.

Chemical building product: <name>										
Raw material reference number	Company name	Raw material name	Function in the product	CAS No.	Substance content	% Substance	Cas No.	Classification per substance	Raw material content in the product	Substance content in the product
1...	-	Water	Solvent	7732-18-5	Water	100,000	7732-18-5	-Not Classified (NC)	14,97	14,9700
2...	Xxx	Xxx	pH regulator	1310-73-2	Sodium hydroxide	95,000	1310-73-2	H314	9	8,5500
					Water	5,000	7732-18-5	NC		
3...	Xxx	Xxx	Dispersing agent	-	Acrylic resins	30,000	-	NC	7	2,1000
					Water	69,995	7732-18-5	NC		4,9000
					1,2-Benzisothiazol-3(2H)-one	0,005	2634-33-5	H314, H317, H412		0,0004
And so on										

Appendix 4 Requirements on the analysis laboratory

The analysis laboratory used shall be certified according to standard EN ISO 17025 or have official GLP status.

Company's own laboratory may act as a test laboratory if:

- The manufacturer has a quality management system encompassing sampling and analysis and has been certified to ISO 9000.
- The test method for performance test is part of the quality system.
- Nordic Ecolabelling shall have access to all raw data from performance testing.