



# Environmental product declaration

in accordance with ISO 14025 and EN 15804+A2

Ö19-26A - Parco Park bench with armrests, SiOO:X oak



# nola

The Norwegian EPD Foundation

# Owner of the declaration:

Nola Industrier Aktiebolag

#### **Product:**

Ö19-26A - Parco Park bench with armrests, SiOO:X oak

#### **Declared unit:**

1 pc

# This declaration is based on Product Category Rules:

CEN Standard EN 15804:2012+A2:2019 serves as core

NPCR 026:2022 Part B for Furniture

# Program operator:

The Norwegian EPD Foundation

#### **Declaration number:**

NEPD-7340-6729-EN

# Registration number:

NEPD-7340-6729-EN

Issue date: 23.08.2024

Valid to: 23.08.2029

#### **EPD** software:

LCAno EPD generator ID: 439278



## **General information**

#### Product

Ö19-26A - Parco Park bench with armrests, SiOO:X oak

#### **Program operator:**

The Norwegian EPD Foundation
Post Box 5250 Majorstuen, 0303 Oslo, Norway

Phone: +47 977 22 020 web: www.epd-norge.no

### **Declaration number:**

NEPD-7340-6729-EN

#### This declaration is based on Product Category Rules:

CEN Standard EN 15804:2012+A2:2019 serves as core PCR NPCR 026:2022 Part B for Furniture

#### Statement of liability:

The owner of the declaration shall be liable for the underlying information and evidence. EPD Norway shall not be liable with respect to manufacturer information, life cycle assessment data and evidences.

#### Declared unit:

1 pcs Ö19-26A - Parco Park bench with armrests, SiOO:X oak

#### Declared unit (cradle to gate) with option:

A1-A3,A4,A5,B2,B3,B4,C1,C2,C3,C4,D

#### Functional unit:

The Parco series consists of sleek seating and streamlined tables that are easy to cluster together, making them ideal for compact spaces. 1 Parco Park bench with armrests, in SiOO:X treated oak, from the Parco series, as delivered to the final customer.

#### General information on verification of EPD from EPD tools:

Independent verification of data, other environmental information and the declaration according to ISO 14025:2010, § 8.1.3 and § 8.1.4. Verification of each EPD is made according to EPD-Norway's guidelines for verification and approval requiring that tools are i) integrated into the company's environmental management system, ii) the procedures for use of the EPD tool are approved by EPD-Norway, and iii) the process is reviewed annually by an independent third party verifier. See Appendix G of EPD-Norway's General Programme Instructions for further information on EPD tools

# Verification of EPD tool:

Independent third party verification of the EPD tool, background data and test-EPD in accordance with EPDNorway's procedures and guidelines for verification and approval of EPD tools.

Third party verifier:

Elisabet Amat, GREENIZE projects

(no signature required)

#### Owner of the declaration:

Nola Industrier Aktiebolag Contact person: Anders Åkesson Phone: 08-702 19 60 e-mail: anders.akesson@nola.se

#### Manufacturer:

Nola Industrier Aktiebolag

#### Place of production:

Nola Industrier Aktiebolag Blekingegatan 26 118 56 Stockholm, Sweden

## **Management system:**

#### Organisation no:

556207-4442

#### Issue date:

23.08.2024

#### Valid to:

23.08.2029

# Year of study:

2022

## **Comparability:**

EPD of construction products may not be comparable if they not comply with EN 15804 and seen in a building context.

# Development and verification of EPD:

The declaration is created using EPD tool lca.tools ver EPD2022.03, developed by LCA.no. The EPD tool is integrated in the company's management system, and has been approved by EPD Norway.

Developer of EPD: Joachim Henriksson

Reviewer of company-specific input data and EPD: Anders Åkesson

#### Approved:

Managing Director of EPD-Norway



## **Product**

# **Product description:**

The Parco Park bench is contemporary in style and generous in proportions. This versatile bench is available in several standard colours, in woods such as in FSC-marked jatoba and with armrests or without. Like the other designs in the Parco furniture group, the park bench can be ground-mounted to provide a permanent fixture in the landscape, public spaces or private courtyards. The bench can be paired with other Parco designs to create customised seating arrangements.

#### **Product specification**

Ö19-26A Parco Park bench

Length: 172 cm Seat Length: 161 cm Height: 77 cm Sitting height: 45 cm Depth: 51 cm Vikt: 40 kg

| Materials               | kg    | %      | Recycled share in<br>material (kg) | Recycled<br>share in<br>material<br>(%) |
|-------------------------|-------|--------|------------------------------------|---|
| Coatings                | 0,81  | 2,01   | 0,00                               | 0,00                                    |
| Metal - Stainless steel | 1,18  | 2,93   | 0,26                               | 21,83                                   |
| Metal - Steel           | 22,65 | 56,32  | 0,00                               | 0,00                                    |
| Powder coating          | 0,14  | 0,35   | 0,00                               | 0,00                                    |
| Wood - Solid oak        | 15,44 | 38,39  | 0,00                               | 0,00                                    |
| Total                   | 40,22 | 100,00 | 0,26                               |   |

| Packaging             | kg    | %      | Recycled share in<br>material (kg) | Recycled<br>share in<br>material<br>(%) |
|-----------------------|-------|--------|------------------------------------|---|
| Packaging - Pallet    | 20,63 | 99,09  | 0,00                               | 0,00                                    |
| Packaging - Plastic   | 0,19  | 0,91   | 0,00                               | 0,00                                    |
| Total incl. packaging | 61,04 | 100,00 | 0,26                               |   |

#### **Technical data:**

#### Market:

Global

#### Reference service life, product

15 years

# Reference service life, building

# LCA: Calculation rules

# **Declared unit:**

1 pcs Ö19-26A - Parco Park bench with armrests, SiOO:X oak

# **Cut-off criteria:**

All major raw materials and all the essential energy is included. The production processes for raw materials and energy flows with very small amounts (less than 1%) are not included. These cut-off criteria do not apply for hazardous materials and substances.

Energy flows and materials representing less than 1% of the total are excluded. Cut-off does not apply for REACH materials.

# Allocation:



The allocation is made in accordance with the provisions of EN 15804. Incoming energy and water and waste production in-house is allocated equally among all products through mass allocation. Effects of primary production of recycled materials is allocated to the main product in which the material was used. The recycling process and transportation of the material is allocated to this analysis. Allocation as per EN 15804.

Impacts from primary production of virgin material are assigned to respective component production and includes transportation.

Impacts from repair and replacement are not included in the use stage, as the materials used in the product are designed to last longer than the stated lifespan

Impacts from primary production of recycled materials are assigned to respective component production, and includes recycling and transportation processes.

Emissions from disposal of the product are included and allocated per material. Energy recovery from incineration of relevant materials is included and allocated on a national level.

#### Data quality:

Specific data for the product composition are provided by the manufacturer. They represent the production of the declared product and were collected for EPD development in the year of study. Background data is based on registered EPDs according to EN 15804, Ostfold Research databases, ecoinvent and other LCA databases. The data quality of the raw materials in A1 is presented in the table below. Data has been gathered from sub suppliers and public, current, published EPDs or ecoinvent 3.6 database.

| Materials               | Source                 | Data quality | Year |
|-------------------------|------------------------|--------------|------|
| Coatings                | S-P-08057              | EPD          | 2019 |
| Coatings                | S-P-08883              | EPD          | 2019 |
| Metal - Stainless steel | ecoinvent 3.6          | Database     | 2019 |
| Metal - Steel           | ecoinvent 3.6          | Database     | 2019 |
| Packaging - Pallet      | ecoinvent 3.6          | Database     | 2019 |
| Packaging - Plastic     | ecoinvent 3.6          | Database     | 2019 |
| Powder coating          | Ecoinvent 3.6          | Database     | 2019 |
| Wood - Solid oak        | modified ecoinvent 3.6 | Database     | 2019 |

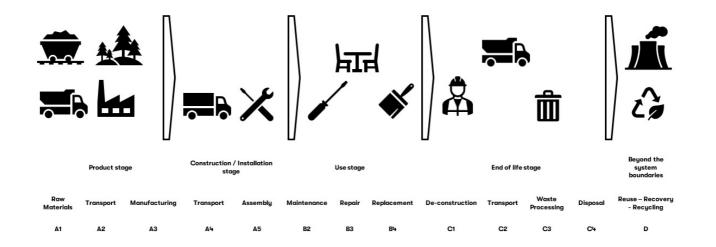


# System boundaries (X=included, MND=module not declared, MNR=module not relevant)

| P                | roduct stag | ge            |           | uction<br>on stage |     |             |        | Use stage   |               |                              |                          | End of life stage                 |           |       | Beyond the system boundaries |  |
|------------------|-------------|---------------|-----------|--------------------|-----|-------------|--------|-------------|---------------|------------------------------|--------------------------|-----------------------------------|-----------|-------|------------------------------|--|
| Raw<br>materials | Transport   | Manufacturing | Transport | Assembly           | Use | Maintenance | Repair | Replacement | Refurbishment | Operational<br>energy<br>use | Operational<br>water use | De-<br>construction<br>demolition | Transport | Waste | Disposal                     | Reuse-Recovery-<br>Recycling-potential |
| A1               | A2          | A3            | A4        | A5                 | B1  | B2          | В3     | B4          | B5            | В6                           | В7                       | C1                                | C2        | C3    | C4                           | D                                      |
| X                | X           | X             | X         | X                  | MND | Χ           | Χ      | X           | MND           | MND                          | MND                      | X                                 | X         | X     | X                            | X                                      |

# System boundary:

Sweden



# Additional technical information:

https://nola.se/produkter/parco-soffa/



# LCA: Scenarios and additional technical information

The following information describe the scenarios in the different modules of the EPD.

Production scenario assumes production in Sweden at sub-suppliers with transport of materials and components between certain production steps.

Usage scenario assumes no repair or replacement and minimal maintenance during the 15 year lifespan of the product, as materials and surface treatments are selected to require servicing during lifetime of product. The installation location is assumed to be within Sweden.

|   | <b></b>                                  |               |                         |       |                        |
|---|--|---------------|-------------------------|-------|------------------------|
| Transport from production place to user (A4)  | Capacity utilisation<br>(incl. return) % | Distance (km) | Fuel/Energy Consumption | Unit  | Value<br>(Liter/tonne) |
| Truck, over 32 tonnes, EURO 5 (km)  | 53,3 %                                   | 400           | 0,023                   | l/tkm | 9,20                   |
| Assembly (A5)   | Unit                                     | Value         |                         |       |                        |
| Waste, packaging, Pallet, EUR wooden pallet, single use, average treatment (kg)                                   | kg                                       | 20,63         |                         |       |                        |
| Waste, packaging, plastic film (LDPE), to average treatment - A5 (kg)   | kg                                       | 0,19          |                         |       |                        |
| Transport to waste processing (C2)  | Capacity utilisation<br>(incl. return) % | Distance (km) | Fuel/Energy Consumption | Unit  | Value<br>(Liter/tonne) |
| Truck, 16-32 tonnes, EURO 5 (km)  | 36,7 %                                   | 50            | 0,044                   | l/tkm | 2,20                   |
| Waste processing (C3)   | Unit                                     | Value         |                         |       |                        |
| Waste treatment per kg Hazardous waste, incineration (kg)   | kg                                       | 0,81          |                         |       |                        |
| Waste treatment per kg Non-hazardous waste, incineration with fly ash extraction - C3 (kg)                        | kg                                       | 0,14          |                         |       |                        |
| Waste treatment per kg Scrap steel, incineration with fly ash extraction (kg)                                     | kg                                       | 23,83         |                         |       |                        |
| Waste treatment per kg Wood, incineration with fly ash extraction (kg)  | kg                                       | 15,44         |                         |       |                        |
| Waste, materials to recycling (kg)  | kg                                       | 8,09          |                         |       |                        |
| Disposal (C4)   | Unit                                     | Value         |                         |       |                        |
| Landfilling of ashes and residues from incineration of Scrap steel (kg)   | kg                                       | 15,74         |                         |       |                        |
| Landfilling of ashes from incineration of<br>Hazardous waste, from incineration (kg)                              | kg                                       | 0,15          |                         |       |                        |
| Landfilling of ashes from incineration of Non-<br>hazardous waste, process per kg ashes and<br>residues - C4 (kg) | kg                                       | 0,03          |                         |       |                        |
| Landfilling of ashes from incineration of Wood, process per kg ashes and residues (kg)                            | kg                                       | 0,18          |                         |       |                        |
| Benefits and loads beyond the system boundaries (D)   | Unit                                     | Value         |                         |       |                        |
| Substitution of electricity (MJ)  | MJ                                       | 10,82         |                         |       |                        |
| Substitution of primary steel with net scrap (kg)   | kg                                       | 8,00          |                         |       |                        |
| Substitution of thermal energy, district heating (MJ)   | МЈ                                       | 163,72        |                         |       |                        |



#### **LCA: Results**

The LCA results are presented below for the declared unit defined on page 2 of the EPD document.

| Environme      | Environmental impact             |                           |      |           |                      |                      |                      |                        |
|----------------|----------------------------------|---------------------------|------|-----------|----------------------|----------------------|----------------------|------------------------|
|                | Indicator                        | Unit                      |      | A1-A3     | A4                   | A5                   | B2                   | В3                     |
|                | GWP-total                        | kg CO <sub>2</sub> -      | eq   | 3,57E+01  | 2,22E+00             | 3,18E+01             | 0                    | 0                      |
|                | GWP-fossil                       | kg CO <sub>2</sub> -      | eq   | 9,17E+01  | 2,22E+00             | 5,70E-01             | 0                    | 0                      |
|                | GWP-biogenic                     | kg CO <sub>2</sub> -      | eq   | -5,66E+01 | 9,10E-04             | 3,13E+01             | 0                    | 0                      |
|                | GWP-luluc                        | kg CO <sub>2</sub> -      | eq   | 6,16E-01  | 6,47E-04             | 1,44E-04             | 0                    | 0                      |
| Ö              | ODP                              | kg CFC11                  | -eq  | 9,23E-06  | 5,12E-07             | 8,96E-08             | 0                    | 0                      |
| Œ              | АР                               | mol H+                    | -eq  | 5,35E-01  | 9,32E-03             | 4,48E-03             | 0                    | 0                      |
|                | EP-FreshWater                    | kg P -e                   | 9    | 5,70E-03  | 1,69E-05             | 6,68E-06             | 0                    | 0                      |
| <del></del>    | EP-Marine                        | kg N -e                   | q    | 1,09E-01  | 2,80E-03             | 1,93E-03             | 0                    | 0                      |
| -              | EP-Terrestial                    | mol N -                   | eq   | 1,26E+00  | 3,10E-02             | 2,06E-02             | 0                    | 0                      |
|                | POCP                             | kg NMVO                   | C-eq | 4,81E-01  | 9,97E-03             | 5,29E-03             | 0                    | 0                      |
|                | ADP-minerals&metals <sup>1</sup> | kg Sb-€                   | q    | 2,02E-03  | 3,79E-05             | 9,08E-06             | 0                    | 0                      |
|                | ADP-fossil <sup>1</sup>          | MJ                        |      | 1,85E+03  | 3,45E+01             | 6,59E+00             | 0                    | 0                      |
| <u>%</u>       | WDP <sup>1</sup>                 | m <sup>3</sup>            |      | 9,30E+04  | 2,65E+01             | 1,03E+01             | 0                    | 0                      |
|                | Indicator                        | Unit                      | B4   | C1        | C2                   | C3                   | C4                   | D                      |
|                | GWP-total                        | kg CO <sub>2</sub> -eq    | 0    | 0         | 5,09E-01             | 2,82E+01             | 2,44E-01             | -9,79E+00              |
|                | GWP-fossil                       | kg CO <sub>2</sub> -eq    | 0    | 0         | 5,08E-01             | 2,42E+00             | 2,43E-01             | -9,75E+00              |
|                | GWP-biogenic                     | kg CO <sub>2</sub> -eq    | 0    | 0         | 2,07E-04             | 2,57E+01             | 1,59E-04             | -6,81E-03              |
|                | GWP-luluc                        | kg CO <sub>2</sub> -eq    | 0    | 0         | 1,78E-04             | 5,20E-04             | 5,99E-05             | -3,66E-02              |
| Ô              | ODP                              | kg CFC11 -eq              | 0    | 0         | 1,16E-07             | 2,34E-07             | 5,81E-08             | -6,92E-02              |
| CE .           | АР                               | mol H+ -eq                | 0    | 0         | 2,08E-03             | 5,92E-03             | 1,38E-03             | -5,16E-02              |
| -              | EP-FreshWater                    | kg P -eq                  | 0    | 0         | 3,99E-06             | 5,02E-05             | 2,40E-06             | -6,26E-04              |
| <del></del>    |                                  |                           |      |           | 6.465.04             |                      |                      | -1,16E-02              |
|                | EP-Marine                        | kg N -eq                  | 0    | 0         | 6,16E-04             | 2,03E-03             | 4,81E-04             | - 1, 10L-02            |
| <del>***</del> | EP-Marine<br>EP-Terrestial       | kg N -eq<br>mol N -eq     | 0    | 0         | 6,16E-04<br>6,82E-03 | 2,03E-03<br>2,20E-02 | 4,81E-04<br>5,35E-03 | -1,10E-02              |
|                |                                  |                           |      |           |                      |                      |                      |                        |
| <del></del>    | EP-Terrestial                    | mol N -eq                 | 0    | 0         | 6,82E-03             | 2,20E-02             | 5,35E-03             | -1,20E-01              |
|                | EP-Terrestial POCP               | mol N -eq<br>kg NMVOC -eq | 0    | 0         | 6,82E-03<br>2,09E-03 | 2,20E-02<br>5,81E-03 | 5,35E-03<br>1,53E-03 | -1,20E-01<br>-5,17E-02 |

GWP-total = Global Warming Potential total; GWP-fossil = Global Warming Potential fossil fuels; GWP-biogenic = Global Warming Potential biogenic; GWP-luluc = Global Warming Potential land use and land use change; ODP = Depletion potential of the stratospheric ozone layer; AP = Acidification potential, Accumulated Exceedance; EP-freshwater = Eutrophication potential, fraction of nutrients reaching freshwater end compartment: EP-marine = Eutrophication potential, fraction of nutrients reaching marine end compartment; EP-terrestrial = Eutrophication potential, Accumulated Exceedance; POCP = Formation potential of tropospheric ozone; ADP-minerals&metals = Abiotic depletion potential for non-fossil resources; ADP-fossil = Abiotic depletion for fossil resources potential; WDP = Water (user) deprivation potential, deprivation-weighted water consumption

#### Remarks to environmental impacts

<sup>&</sup>quot;Reading example: 9,0 E-03 = 9,0\*10-3 = 0,009"

<sup>\*</sup>INA Indicator Not Assessed

<sup>1.</sup> The results of this environmental impact indicator shall be used with care as the uncertainties on these results are high or as there is limited experienced with the indicator



| Additional env | rironmental impact ind | icators           |          |          |          |    |    |
|----------------|------------------------|-------------------|----------|----------|----------|----|----|
|                | Indicator              | Unit              | A1-A3    | A4       | A5       | B2 | В3 |
|                | PM                     | Disease incidence | 8,48E-06 | 1,95E-07 | 5,49E-08 | 0  | 0  |
|                | IRP <sup>2</sup>       | kgBq U235 -eq     | 3,32E+01 | 1,51E-01 | 2,39E-02 | 0  | 0  |
| 40             | ETP-fw <sup>1</sup>    | CTUe              | 4,22E+03 | 2,52E+01 | 7,49E+00 | 0  | 0  |
| 40 x           | HTP-c <sup>1</sup>     | CTUh              | 6,76E-07 | 0,00E+00 | 8,27E-10 | 0  | 0  |
| 49 <u>B</u>    | HTP-nc <sup>1</sup>    | CTUh              | 3,12E-06 | 2,44E-08 | 3,97E-08 | 0  | 0  |
|                | SQP <sup>1</sup>       | dimensionless     | 6,57E+03 | 3,96E+01 | 3,77E+00 | 0  | 0  |
|                |                        |                   |          |          |          |    |    |

| I                     | ndicator            | Unit              | B4 | C1 | C2       | C3       | C4       | D         |
|-----------------------|---------------------|-------------------|----|----|----------|----------|----------|-----------|
|                       | PM                  | Disease incidence | 0  | 0  | 3,66E-08 | 1,07E-07 | 2,38E-08 | -1,20E-06 |
|                       | IRP <sup>2</sup>    | kgBq U235 -eq     | 0  | 0  | 3,35E-02 | 4,08E-02 | 1,80E-02 | -5,51E-02 |
| <b>3</b>              | ETP-fw <sup>1</sup> | CTUe              | 0  | 0  | 5,65E+00 | 4,95E+01 | 3,29E+00 | -5,64E+02 |
| 40.*<br>*** <u>\$</u> | HTP-c <sup>1</sup>  | CTUh              | 0  | 0  | 0,00E+00 | 3,41E-09 | 1,33E-10 | -4,37E-08 |
| <del>%</del>          | HTP-nc <sup>1</sup> | CTUh              | 0  | 0  | 6,10E-09 | 4,33E-08 | 4,03E-09 | 8,49E-07  |
|                       | SQP <sup>1</sup>    | dimensionless     | 0  | 0  | 5,29E+00 | 3,49E+00 | 9,72E+00 | -9,63E+01 |

PM = Particulate Matter emissions; IRP = Ionizing radiation – human health; ETP-fw = Eco toxicity – freshwater; HTP-c = Human toxicity – cancer effects; HTP-nc = Human toxicity – non cancer effects; SQP = Soil Quality (dimensionless)

<sup>&</sup>quot;Reading example: 9,0 E-03 = 9,0\*10-3 = 0,009"

<sup>\*</sup>INA Indicator Not Assessed

<sup>1.</sup> The results of this environmental impact indicator shall be used with care as the uncertainties on these results are high or as there is limited experienced with the indicator

<sup>2.</sup> This impact category deals mainly with the eventual impact of low dose ionizing radiation on human health of the nuclear fuel cycle. It does not consider effects due to possible nuclear accidents, occupational exposure nor due to radioactive waste disposal in underground facilities. Potential ionizing radiation from the soil, from radon and from some construction materials is also not measured by this indicator.



| Resource use                                 |                                     |                      |                            |                            |  |  |  |  |
|--|-------------------------------------|----------------------|----------------------------|----------------------------|--|--|--|--|
|  | Indicator                           |                      | Unit                       | A1-A3                      | A4   | A5   | B2   | В3   |
| , i  | PERE                                |                      | MJ                         |                            | 4,34E-01   | 1,36E-01   | 0  | 0  |
|  | PERM                                |                      | МЈ                         | 5,02E+02                   | 0,00E+00   | -2,86E+02  | 0  | 0  |
| ļ.   | PERT                                |                      | МЈ                         | 1,53E+03                   | 4,34E-01   | -2,86E+02  | 0  | 0  |
|  | PENRE                               |                      | МЈ                         | 1,85E+03                   | 3,45E+01   | 6,59E+00   | 0  | 0  |
| 42   | PENRM                               |                      | МЈ                         | 1,11E+01                   | 0,00E+00   | -8,07E+00  | 0  | 0  |
| <b>IA</b>                                    | PENRT                               |                      | МЈ                         | 1,86E+03                   | 3,45E+01   | -1,48E+00  | 0  | 0  |
| <u></u>                                      | SM                                  |                      | kg                         | 2,58E-01                   | 0,00E+00   | 0,00E+00   | 0  | 0  |
| 2  | RSF                                 |                      | МЈ                         | 2,72E+00                   | 1,52E-02   | 3,95E-03   | 0  | 0  |
|  | NRSF                                |                      | МЈ                         |                            | 5,09E-02   | 4,46E-02   | 0  | 0  |
| <b>%</b>                                     | FW                                  |                      | $m^3$                      | 1,73E+00                   | 3,93E-03   | 4,78E-03   | 0  | 0  |
|  |                                     |                      |                            |                            |  |  |  |  |
|  | ndicator                            | Unit                 | B4                         | C1                         | C2   | C3   | C4   | D  |
| <b>ं</b>                                     | <b>ndicator</b><br>PERE             | <b>Unit</b><br>MJ    | B4<br>0                    | C1<br>0                    | C2<br>1,08E-01   | C3<br>1,47E+00   | C4<br>1,13E-01   | D<br>-8,98E+01   |
|  |                                     |                      |                            |                            |  |  |  |  |
| Ö  | PERE                                | МЈ                   | 0                          | 0                          | 1,08E-01   | 1,47E+00   | 1,13E-01   | -8,98E+01  |
| e<br>I                                       | PERE<br>PERM                        | MJ                   | 0                          | 0                          | 1,08E-01<br>0,00E+00   | 1,47E+00<br>-2,16E+02  | 1,13E-01<br>0,00E+00   | -8,98E+01<br>0,00E+00  |
| .€<br><b>3</b><br>.⊊.                        | PERE PERM PERT                      | MJ<br>MJ             | 0 0 0                      | 0 0                        | 1,08E-01<br>0,00E+00<br>1,08E-01                                     | 1,47E+00<br>-2,16E+02<br>-2,15E+02                                     | 1,13E-01<br>0,00E+00<br>1,13E-01   | -8,98E+01<br>0,00E+00<br>-8,98E+01   |
| <b>1</b><br><b>1</b><br><b>1</b><br><b>1</b> | PERE PERM PERT PENRE                | MJ<br>MJ             | 0 0 0 0                    | 0 0 0                      | 1,08E-01<br>0,00E+00<br>1,08E-01<br>7,67E+00                         | 1,47E+00<br>-2,16E+02<br>-2,15E+02<br>1,03E+01                         | 1,13E-01<br>0,00E+00<br>1,13E-01<br>4,37E+00                                     | -8,98E+01<br>0,00E+00<br>-8,98E+01<br>-8,76E+01                                      |
| <b>3</b><br><b>4</b><br><b>4</b>             | PERE PERM PERT PENRE PENRM          | мл<br>мл<br>мл<br>мл | 0<br>0<br>0<br>0           | 0<br>0<br>0<br>0           | 1,08E-01<br>0,00E+00<br>1,08E-01<br>7,67E+00<br>0,00E+00             | 1,47E+00<br>-2,16E+02<br>-2,15E+02<br>1,03E+01<br>0,00E+00             | 1,13E-01<br>0,00E+00<br>1,13E-01<br>4,37E+00<br>0,00E+00                         | -8,98E+01<br>0,00E+00<br>-8,98E+01<br>-8,76E+01<br>0,00E+00                          |
|  | PERE PERM PERT PENRE PENRM PENRT    | мл<br>мл<br>мл<br>мл | 0<br>0<br>0<br>0<br>0      | 0<br>0<br>0<br>0<br>0      | 1,08E-01<br>0,00E+00<br>1,08E-01<br>7,67E+00<br>0,00E+00<br>7,67E+00 | 1,47E+00<br>-2,16E+02<br>-2,15E+02<br>1,03E+01<br>0,00E+00<br>1,03E+01 | 1,13E-01<br>0,00E+00<br>1,13E-01<br>4,37E+00<br>0,00E+00<br>4,37E+00             | -8,98E+01<br>0,00E+00<br>-8,98E+01<br>-8,76E+01<br>0,00E+00<br>-8,76E+01             |
|  | PERE PERM PERT PENRE PENRM PENRT SM | MJ MJ MJ MJ MJ kg    | 0<br>0<br>0<br>0<br>0<br>0 | 0<br>0<br>0<br>0<br>0<br>0 | 1,08E-01 0,00E+00 1,08E-01 7,67E+00 0,00E+00 7,67E+00 0,00E+00       | 1,47E+00 -2,16E+02 -2,15E+02 1,03E+01 0,00E+00 1,03E+01 0,00E+00       | 1,13E-01<br>0,00E+00<br>1,13E-01<br>4,37E+00<br>0,00E+00<br>4,37E+00<br>0,00E+00 | -8,98E+01<br>0,00E+00<br>-8,98E+01<br>-8,76E+01<br>0,00E+00<br>-8,76E+01<br>0,00E+00 |

PERE = Use of renewable primary energy excluding renewable primary energy resources used as raw materials; PERM = Use of renewable primary energy resources used as raw materials; PERT = Total use of renewable primary energy resources; PENRE = Use of non renewable primary energy resources used as raw materials; PENRT = Total use of non renewable primary energy resources; SM = Use of secondary materials; PENRM = Use of non renewable primary energy resources; SM = Use of secondary materials; RSF = Use of renewable secondary fuels; NRSF = Use of non-renewable secondary fuels; FW = Net use of fresh water

"Reading example: 9,0 E-03 = 9,0\*10-3 = 0,009" \*INA Indicator Not Assessed



| End of life - Waste |           |  |      |     |          |          |          |          |           |
|---------------------|-----------|--|------|-----|----------|----------|----------|----------|-----------|
|                     | Indicator |  | U    | nit | A1-A3    | A4       | A5       | B2       | В3        |
|                     | HWD       |  |      | kg  |          | 1,89E-03 | 0,00E+00 | 0        | 0         |
| Ū                   | NHWD      |  | k    | g   | 4,84E+01 | 3,00E+00 | 2,08E+01 | 0        | 0         |
| <u> </u>            | RWD       |  | k    | g   | 1,60E-02 | 2,35E-04 | 0,00E+00 | 0        | 0         |
| In                  | dicator   |  | Unit | B4  | C1       | C2       | C3       | C4       | D         |
| Ā                   | HWD       |  | kg   | 0   | 0        | 3,91E-04 | 0,00E+00 | 1,58E+01 | -4,64E-02 |
| Ū                   | NHWD      |  | kg   | 0   | 0        | 3,66E-01 | 9,50E-01 | 2,94E-01 | -3,92E+00 |
| 8                   | RWD       |  | kg   | 0   | 0        | 5,23E-05 | 0,00E+00 | 2,49E-05 | -4,68E-05 |

HWD = Hazardous waste disposed; NHWD = Non-hazardous waste disposed; RWD = Radioactive waste disposed

"Reading example: 9,0 E-03 = 9,0\*10-3 = 0,009" \*INA Indicator Not Assessed

| End of life - Output flow |        |      |    |          |          |          |          |          |
|---------------------------|--------|------|----|----------|----------|----------|----------|----------|
| Ind                       | icator | Uni  | 1  | A1-A3    | A4       | A5       | B2       | В3       |
| <b>@▷</b>                 | CRU    | kg   |    | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0        | 0        |
| \$>                       | MFR    | kg   |    | 5,65E+00 | 0,00E+00 | 9,75E-02 | 0        | 0        |
| Þ₹                        | MER    | kg   |    | 1,93E+00 | 0,00E+00 | 2,05E+01 | 0        | 0        |
| 50                        | EEE    | MJ   |    | 1,34E+00 | 0,00E+00 | 1,42E+01 | 0        | 0        |
| D                         | EET    | MJ   |    | 2,03E+01 | 0,00E+00 | 2,15E+02 | 0        | 0        |
| Indicato                  | or     | Unit | B4 | C1       | C2       | C3       | C4       | D        |
| <b>∅</b> >                | CRU    | kg   | 0  | 0        | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 |
| &▷                        | MFR    | kg   | 0  | 0        | 0,00E+00 | 8,09E+00 | 0,00E+00 | 0,00E+00 |
| DF                        | MER    | kg   | 0  | 0        | 0,00E+00 | 4,02E+01 | 0,00E+00 | 0,00E+00 |
| <b>₹</b> D                | EEE    | МЈ   | 0  | 0        | 0,00E+00 | 1,14E+01 | 0,00E+00 | 0,00E+00 |
| DØ                        | EET    | MJ   | 0  | 0        | 0,00E+00 | 1,72E+02 | 0,00E+00 | 0,00E+00 |

CRU = Components for re-use; MFR = Materials for recycling; MER = Materials for energy recovery; EEE = Exported energy electrical; EET = Exported energy thermal

"Reading example: 9,0 E-03 = 9,0\*10-3 = 0,009" \*INA Indicator Not Assessed

| Biogenic Carbon Content                           |      |                     |  |  |  |  |  |  |  |
|---|------|---------------------|--|--|--|--|--|--|--|
| Indicator   | Unit | At the factory gate |  |  |  |  |  |  |  |
| Biogenic carbon content in product                | kg C | 8,42E+00            |  |  |  |  |  |  |  |
| Biogenic carbon content in accompanying packaging | kg C | 8,53E+00            |  |  |  |  |  |  |  |
|   |      |                     |  |  |  |  |  |  |  |

Note: 1 kg biogenic carbon is equivalent to 44/12 kg CO2



# **Additional requirements**

# Greenhouse gas emissions from the use of electricity in the manufacturing phase

National production mix from import, low voltage (production of transmission lines, in addition to direct emissions and losses in grid) of applied electricity for the manufacturing process (A3).

| Electricity mix           | Source        | Amount | Unit         |
|---------------------------|---------------|--------|--------------|
| Electricity, Sweden (kWh) | ecoinvent 3.6 | 54,94  | g CO2-eq/kWh |

#### **Dangerous substances**

The product contains no substances given by the REACH Candidate list.

#### **Indoor environment**

# **Additional Environmental Information**

# **Key Environmental Indicators**

| Key environmental indicators | Unit                   | A1-A3   | A4    | A1-C4   | A1-D    |
|------------------------------|------------------------|---------|-------|---------|---------|
| GWPtotal                     | kg CO <sub>2</sub> -eq | 35,72   | 2,22  | 98,70   | 88,91   |
| Total energy consumption     | MJ                     | 2935,91 | 34,99 | 3001,86 | 2828,98 |
| Amount of recycled materials | %                      | 0.42    |       |         |         |

| Additional environmental impact indicators required in NPCR Part A for construction products |                        |      |          |          |          |          |           |
|--|------------------------|------|----------|----------|----------|----------|-----------|
| Indicator  | Unit                   | Unit |          | A4       | A5       | B2       | В3        |
| GWPIOBC  | kg CO <sub>2</sub> -eq |      | 9,27E+01 | 2,22E+00 | 5,70E-01 | 0        | 0         |
| Indicator  | Unit                   | B4   | C1       | C2       | C3       | C4       | D         |
| GWPIOBC  | kg CO <sub>2</sub> -eq | 0    | 0        | 5,09E-01 | 2,28E+00 | 2,44E-01 | -1,42E+01 |

GWP-IOBC: Global warming potential calculated according to the principle of instantaneous oxidation. In order to increase the transparency of biogenic carbon contribution to climate impact, the indicator GWP-IOBC is required as it declares climate impacts calculated according to the principle of instantaneous oxidation. GWP-IOBC is also referred to as GWP-GHG in context to Swedish public procurement legislation.



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