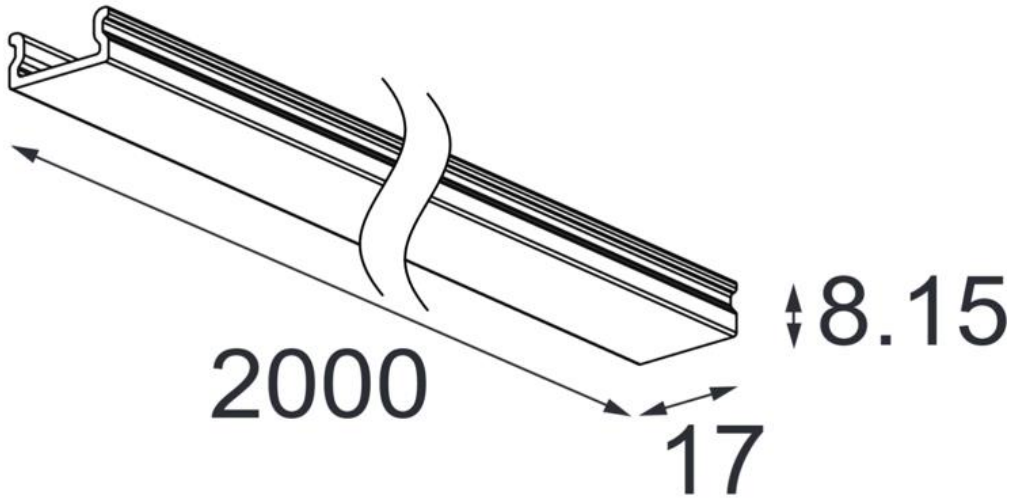
# ENVIRONMENTAL PRODUCT DECLARATION

## IN ACCORDANCE WITH EN 15804+A2 & ISO 14021 / ISO 21930

**SLD20 Back Cover 2000mm**
**All finishes**
Modular Lighting Instruments




EPD HUB
Publishing date 2025-07-02

MODULAR
LIGHTING INSTRUMENTS

# GENERAL INFORMATION

## MANUFACTURER

| | |
|---|---|
| Manufacturer | Modular Lighting Instruments |
| Address | Armoedestraat 71 - 8800 Roeselare - BELGIUM |
| Contact details | sustainability@supermodular.com |
| Website | www.supermodular.com |

## EPD STANDARDS, SCOPE AND VERIFICATION

| | |
|---|---|
| Reference standard | EN 15804+A2:2019 and ISO 14021 |
| Sector | Electrical product |
| Category of EPD | Self-declared EPD |
| Scope of the EPD | Cradle to gate with options, A4-B7, and modules C1-C4, D |
| EPD author | Sustainability Signify |
| EPD verification | Independent verification of this EPD and data, according to ISO 14021:<br>☑ Internal certification ☐External verification |

The manufacturer has the sole ownership, liability, and responsibility for the EPD. EPDs within the same product category but from different programs may not be comparable. EPDs of lighting products may not be comparable if they do not comply with EN 15804 and if they are not compared in a lighting context.

## PRODUCT

| | |
|---|---|
| Product name | SLD20 Back Cover 2000mm |
| Additional labels | All finishes |
| Product reference | 915006293688 (93633309) |
| Place of production | BELGIUM |
| Period for data | 2024 |
| Averaging in EPD | No averaging |
| Variation in GWP-fossil for A1-A3 | Not applicable |

## ENVIRONMENTAL DATA SUMMARY

| | |
|---|---|
| **Declared unit** | 1 unit |
| **Declared unit mass** | 0.107 kg |
| **GWP-fossil, A1-A3 (kgCO2e)** | 2.30E+00 |
| **GWP-total, A1-A3 (kgCO2e)** | 1.23E+00 |
| **Secondary material, inputs (%)** | 6.45 |
| **Secondary material, outputs (%)** | 50 |
| **Total energy use, A1-A3 (kWh)** | 11.6 |
| **Net fresh water use, A1-A3 (m3e)** | 0.02 |

# PRODUCT AND MANUFACTURER

## ABOUT THE MANUFACTURER

Belgian architectural lighting since 1980.Creating beautifully crafted products that break the boundaries of technical limitations. Our ambition since the start. Over the years, we have built the reputation of being innovators and pioneers in the architectural lighting world. Today, staying true to our core values, we continue offering a full portfolio to challenge your thinking.

For more information, please visit: www.supermodular.com.

## PRODUCT DESCRIPTION

Light in form, pure in function. With its slim 20 mm profile, SLD20 brings elegant light lines to any space. Customisable in length, colour, and configuration, it ensures seamless applications and a stylish ambience.

## PRODUCT RAW MATERIAL MAIN COMPOSITION

| Raw material category | Amount, mass- % | Material origin |
|---|---|---|
| Metals | 0 | Not applicable |
| Minerals | 0 | Not applicable |
| Fossil materials | 100 | EU |
| Bio-based materials | 0 | Not applicable |

## BIOGENIC CARBON CONTENT

Product's biogenic carbon content at the factory gate

| | |
|---|---|
| Biogenic carbon content in product, kg C | 0 |
| Biogenic carbon content in packaging, kg C | 0.3 |

## FUNCTIONAL UNIT AND SERVICE LIFE

| | |
|---|---|
| Declared unit | 1 Unit |
| Mass per declared unit | 0.107 kg |
| Functional unit | Lumens over 50000 hours |
| Reference service life | 50000 hours |

## SUBSTANCES, REACH - VERY HIGH CONCERN

The product does not contain any REACH SVHC substances in amounts greater than 0.1 % (1000 ppm).

# PRODUCT LIFE-CYCLE

## SYSTEM BOUNDARY

This EPD covers the life-cycle modules listed in the following table.

| Product stage | | | Assembly stage | | Use stage | | | | | | | End of life stage | | | | Beyond the system boundaries | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| A1 | A2 | A3 | A4 | A5 | B1 | B2 | B3 | B4 | B5 | B6 | B7 | C1 | C2 | C3 | C4 | D | | |
| x | x | x | x | x | MNR | MNR | MNR | MNR | MNR | x | MNR | MNR | x | x | x | x | | |
| Raw materials | Transport | Manufacturing | Transport | Assembly | Use | Maintenance | Repair | Replacement | Refurbishment | Operational energy use | Operational water use | Deconstr./demol. | Transport | Waste processing | Disposal | Reuse | Recovery | Recycling |

*Modules not relevant = MNR.*

## MANUFACTURING AND PACKAGING (A1-A3)

The environmental impacts considered for the product stage cover the manufacturing of raw materials used in the production as well as packaging materials and other ancillary materials. Also, electricity, and waste formed in the production processes at Modular's manufacturing facilities are included in this stage. The product is made of metals, plastics, and electronic components. All components are transported to Modular's production facility, where the main manufacturing processes primarily are associated with assembly. The finished product is packaged with polyethylene, cardboard, and/or paper as packaging material before being sent to customers. Manufacturing loss, ancillaries and wastes are calculated according to the data that each manufacturing site is sharing with Modular. The total annual amount of waste in kg is allocated to the total annual production in kg at the specific manufacturing site responsible for the production of the studied luminaire. Thus, it is possible to allocate it according to the weight of the product analysed in this study. Some of the waste are due to ancillary materials used during manufacturing while the rest is due to material losses.

## TRANSPORT AND INSTALLATION (A4-A5)

Transport distances were calculated on the base of the supplier location and manufacturing location and then made a cumulative group choosing the conservative scenario. Environmental impacts from installation include waste packaging materials (A5). The impacts of energy consumption and the used ancillary materials during installation are considered negligible.

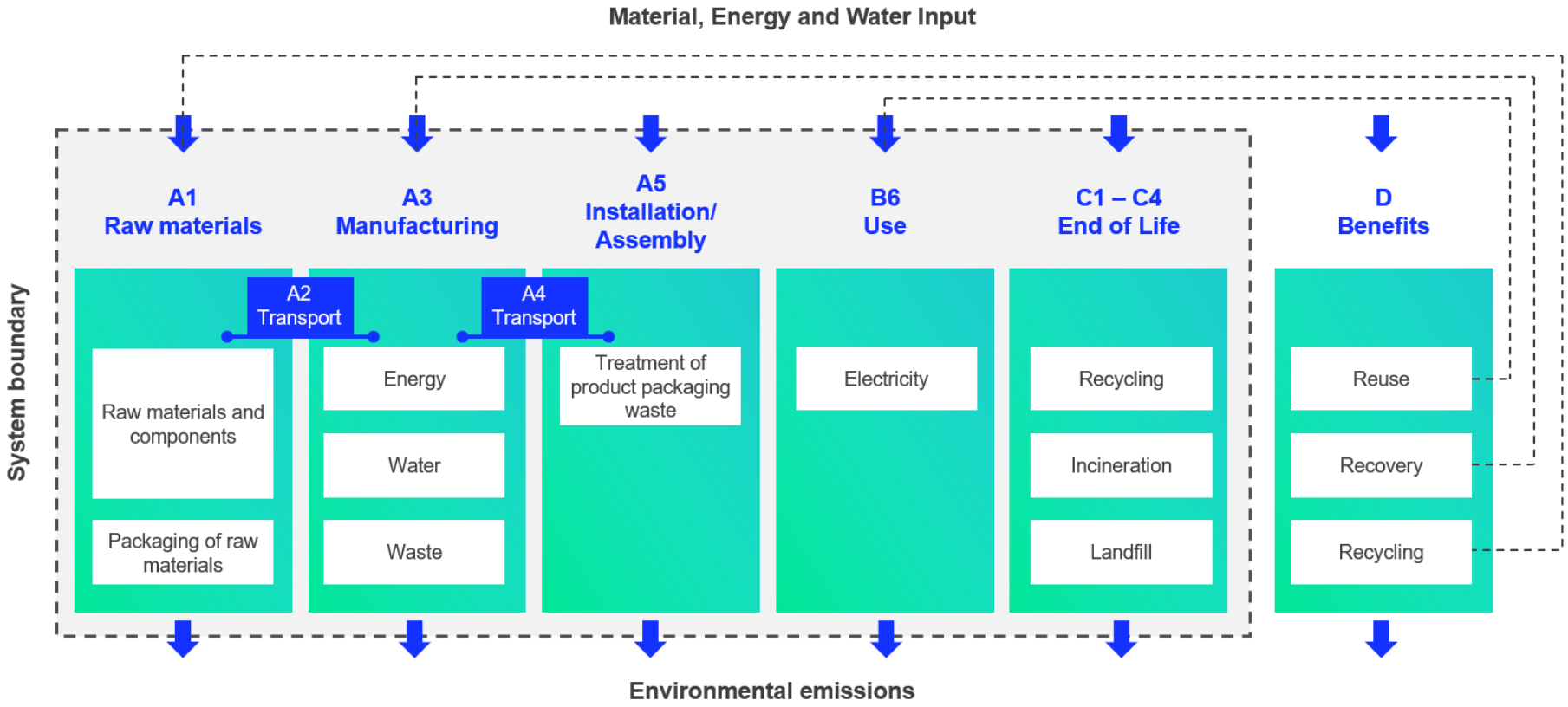
## PRODUCT USE AND MAINTENANCE (B1-B7)

During the use phase, the product consumes electricity from EU's electricity grid mix (B6). The total power consumption of the reference product is calculated as follows: Wattage x Reference lifetime = kWh consumed throughout the entire use phase B6.

## PRODUCT END OF LIFE (C1-C4, D)

Consumption of energy and natural resources in demolition process is assumed to be negligible. It is assumed that the waste is collected separately and transported to the waste treatment centre. Transportation distance to treatment is assumed as 150 km and the transportation method is assumed to be lorry (C2). According to EN 50693:2019, the sequence of treatment operations occurring to the product shall include de-pollution, fractions separation and preparation (dismantling, crushing, shredding, sorting), recycling, other material recovery, energy recovery and disposal. In this study, the default values from table G.4 of EN 50693 is used for treating materials in different waste treatment methods. Due to the material and energy recovery potential of parts in the lighting system, the end-of-life product is converted into recycled raw materials, while the energy recovered from incineration displaces electricity and heat production (D). The benefits and loads of incineration and recycling are included in Module D.

# SYSTEM BOUNDARY



# LIFE-CYCLE ASSESSMENT

## CUT-OFF CRITERIA

The study does not exclude any modules or processes which are stated mandatory in the reference standard and the applied PCR. The study does not exclude any hazardous materials or substances. The study includes all major raw material and energy consumption. All inputs and outputs of the unit processes, for which data is available for, are included in the calculation. There is no neglected unit process more than 1% of total mass or energy flows. The module specific total neglected input and output flows also do not exceed 5% of energy usage or mass.

## ALLOCATION, ESTIMATES AND ASSUMPTIONS

Allocation is required if some material, energy, and waste data cannot be measured separately for the product under investigation. All allocations are done as per the reference standards and the applied PCR. In this study, ancillary materials, energy & water consumption, material loss and waste generation at the manufacturing site are attributed to the bill of materials of the products, therefore, they are allocated by partitioning the quantities on the base of the total production in kg throughout the year. Thus, allocation has been done in the following ways:

| Data type | Allocation |
|---|---|
| Raw materials | No allocation |
| Packaging materials | No allocation |
| Ancillary materials | Allocated by mass or volume |
| Manufacturing energy and waste | Allocated by mass or volume |

This EPD is created with a most conservative scenario in A1-A3 in terms of material composition.

## AVERAGES AND VARIABILITY

| | |
|---|---|
| Type of average | No averaging |
| Averaging method | Not applicable |
| Variation in GWP-fossil for A1-A3 | Not applicable |

This EPD is product and factory specific and does not contain average calculations. It is created with a most conservative scenario in A1-A3 in terms of material composition.

## LCA SOFTWARE AND BIBLIOGRAPHY

This EPD has been created using One Click LCA EPD Generator. The LCA and EPD have been prepared according to the reference standards and ISO 14040/14044. EcoInvent 3.10.1 database was used as the source of environmental data.

# ENVIRONMENTAL IMPACT DATA

## CORE ENVIRONMENTAL IMPACT INDICATORS – EN 15804+A2, PEF

| Impact category | Unit | A1 | A2 | A3 | A1-A3 | A4 | A5 | B1 | B2 | B3 | B4 | B5 | B6 | B7 | C1 | C2 | C3 | C4 | D |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| GWP – total[1)] | kg $CO_2e$ | 9.01E-01 | 1.83E-01 | 1.48E-01 | 1.23E+00 | 1.83E-01 | 1.10E+00 | MNR | MNR | MNR | MNR | MNR | MND | MNR | MNR | 1.73E-03 | 1.27E-01 | 8.45E-02 | -7.27E-02 |
| GWP – fossil | kg $CO_2e$ | 9.17E-01 | 1.83E-01 | 1.20E+00 | 2.30E+00 | 1.83E-01 | 2.52E-02 | MNR | MNR | MNR | MNR | MNR | MND | MNR | MNR | 1.73E-03 | 1.27E-01 | 6.63E-02 | -7.26E-02 |
| GWP – biogenic | kg $CO_2e$ | -1.74E-02 | 0.00E+00 | -1.08E+00 | -1.10E+00 | 0.00E+00 | 1.08E+00 | MNR | MNR | MNR | MNR | MNR | MND | MNR | MNR | 0.00E+00 | 0.00E+00 | 1.83E-02 | -4.38E-05 |
| GWP – LULUC | kg $CO_2e$ | 9.40E-04 | 8.21E-05 | 2.43E-02 | 2.54E-02 | 8.21E-05 | 7.67E-06 | MNR | MNR | MNR | MNR | MNR | MND | MNR | MNR | 7.74E-07 | 9.86E-07 | 7.00E-07 | -5.15E-05 |
| Ozone depletion pot. | kg $CFC_{-11}e$ | 2.39E-08 | 2.71E-09 | 2.91E-08 | 5.57E-08 | 2.71E-09 | 3.35E-10 | MNR | MNR | MNR | MNR | MNR | MND | MNR | MNR | 2.55E-11 | 4.70E-11 | 3.13E-11 | -2.17E-10 |
| Acidification potential | mol $H^+e$ | 4.18E-03 | 6.25E-04 | 5.62E-03 | 1.04E-02 | 6.25E-04 | 2.07E-04 | MNR | MNR | MNR | MNR | MNR | MND | MNR | MNR | 5.90E-06 | 2.90E-05 | 1.68E-05 | -5.42E-04 |
| EP-freshwater[2)] | kg Pe | 3.12E-04 | 1.43E-05 | 4.92E-04 | 8.18E-04 | 1.43E-05 | 3.25E-06 | MNR | MNR | MNR | MNR | MNR | MND | MNR | MNR | 1.35E-07 | 3.97E-07 | 2.33E-07 | -2.33E-05 |
| EP-marine | kg Ne | 8.08E-04 | 2.05E-04 | 2.53E-03 | 3.54E-03 | 2.05E-04 | 1.08E-04 | MNR | MNR | MNR | MNR | MNR | MND | MNR | MNR | 1.94E-06 | 1.65E-05 | 6.46E-05 | -7.50E-05 |
| EP-terrestrial | mol Ne | 8.25E-03 | 2.24E-03 | 1.59E-02 | 2.64E-02 | 2.24E-03 | 9.36E-04 | MNR | MNR | MNR | MNR | MNR | MND | MNR | MNR | 2.11E-05 | 1.41E-04 | 7.95E-05 | -7.84E-04 |
| POCP ("smog")[3)] | kg NMVOCe | 3.74E-03 | 9.22E-04 | 5.49E-03 | 1.02E-02 | 9.22E-04 | 2.38E-04 | MNR | MNR | MNR | MNR | MNR | MND | MNR | MNR | 8.69E-06 | 3.53E-05 | 2.13E-05 | -2.32E-04 |
| ADP-minerals & metals[4)] | kg Sbe | 2.38E-05 | 5.12E-07 | 4.63E-06 | 2.90E-05 | 5.12E-07 | 6.70E-08 | MNR | MNR | MNR | MNR | MNR | MND | MNR | MNR | 4.82E-09 | 9.14E-09 | 5.26E-09 | -2.97E-08 |
| ADP-fossil resources | MJ | 1.62E+01 | 2.66E+00 | 1.71E+01 | 3.60E+01 | 2.66E+00 | 1.78E-01 | MNR | MNR | MNR | MNR | MNR | MND | MNR | MNR | 2.51E-02 | 2.48E-02 | 1.92E-02 | -6.81E-01 |
| Water use[5)] | $m^3e$ depr. | 2.29E-01 | 1.31E-02 | 4.68E-01 | 7.10E-01 | 1.31E-02 | 5.32E-02 | MNR | MNR | MNR | MNR | MNR | MND | MNR | MNR | 1.24E-04 | 8.38E-03 | 4.23E-03 | -7.20E-03 |

*1) GWP = Global Warming Potential; 2) EP = Eutrophication potential. Required characterisation method and data are in kg P-eq. Multiply by 3,07 to get PO4e; 3) POCP = Photochemical ozone formation; 4) ADP = Abiotic depletion potential; 5) EN 15804+A2 disclaimer for Abiotic depletion and Water use and optional indicators except Particulate matter and Ionizing radiation, human health. The results of these environmental impact indicators shall be used with care as the uncertainties on these results are high or as there is limited experience with the indicator.*

## ADDITIONAL (OPTIONAL) ENVIRONMENTAL IMPACT INDICATORS – EN 15804+A2, PEF

| Impact category | Unit | A1 | A2 | A3 | A1-A3 | A4 | A5 | B1 | B2 | B3 | B4 | B5 | B6 | B7 | C1 | C2 | C3 | C4 | D |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Particulate matter | Incidence | 4.56E-08 | 1.84E-08 | 1.06E-07 | 1.70E-07 | 1.84E-08 | 1.74E-09 | MNR | MNR | MNR | MNR | MNR | MND | MNR | MNR | 1.73E-10 | 1.50E-10 | 1.24E-10 | -9.23E-09 |
| Ionizing radiation[6)] | kBq U235e | 5.99E-02 | 2.32E-03 | 5.82E-02 | 1.20E-01 | 2.32E-03 | 3.34E-04 | MNR | MNR | MNR | MNR | MNR | MND | MNR | MNR | 2.19E-05 | 4.47E-05 | 2.96E-05 | -2.73E-03 |
| Ecotoxicity (freshwater) | CTUe | 3.06E+01 | 3.77E-01 | 6.00E+00 | 3.70E+01 | 3.77E-01 | 1.24E+00 | MNR | MNR | MNR | MNR | MNR | MND | MNR | MNR | 3.55E-03 | 2.50E-01 | 2.18E-01 | -1.55E-01 |
| Human toxicity, cancer | CTUh | 8.41E-10 | 3.03E-11 | 6.57E-10 | 1.53E-09 | 3.03E-11 | 6.20E-11 | MNR | MNR | MNR | MNR | MNR | MND | MNR | MNR | 2.85E-13 | 1.09E-11 | 5.74E-12 | -1.39E-11 |
| Human tox. non-cancer | CTUh | 9.43E-09 | 1.72E-09 | 1.59E-08 | 2.70E-08 | 1.72E-09 | 2.49E-09 | MNR | MNR | MNR | MNR | MNR | MND | MNR | MNR | 1.62E-11 | 3.81E-10 | 2.51E-10 | -4.92E-10 |
| SQP[7)] | - | 5.66E+00 | 2.68E+00 | 6.09E+01 | 6.93E+01 | 2.68E+00 | 5.55E-02 | MNR | MNR | MNR | MNR | MNR | MND | MNR | MNR | 2.53E-02 | 6.98E-03 | 1.90E-02 | -4.13E-01 |

*6) EN 15804+A2 disclaimer for Ionizing radiation, human health. 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; 7) SQP = Land use related impacts/soil quality.*

## USE OF NATURAL RESOURCES

| Impact category | Unit | A1 | A2 | A3 | A1-A3 | A4 | A5 | B1 | B2 | B3 | B4 | B5 | B6 | B7 | C1 | C2 | C3 | C4 | D |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Renew. PER as energy[8)] | MJ | 1.19E+00 | 3.65E-02 | 8.10E+00 | 9.33E+00 | 3.65E-02 | -1.31E+01 | MNR | MNR | MNR | MNR | MNR | MND | MNR | MNR | 3.44E-04 | 1.02E-03 | 6.22E-04 | -9.37E-02 |
| Renew. PER as material | MJ | 1.78E-01 | 0.00E+00 | 9.54E+00 | 9.72E+00 | 0.00E+00 | -9.54E+00 | MNR | MNR | MNR | MNR | MNR | MND | MNR | MNR | 0.00E+00 | 0.00E+00 | -1.78E-01 | 0.00E+00 |
| Total use of renew. PER | MJ | 1.37E+00 | 3.65E-02 | 1.76E+01 | 1.90E+01 | 3.65E-02 | -2.27E+01 | MNR | MNR | MNR | MNR | MNR | MND | MNR | MNR | 3.44E-04 | 1.02E-03 | -1.78E-01 | -9.37E-02 |
| Non-re. PER as energy | MJ | 1.30E+01 | 2.66E+00 | 1.67E+01 | 3.23E+01 | 2.66E+00 | 1.78E-01 | MNR | MNR | MNR | MNR | MNR | MND | MNR | MNR | 2.51E-02 | -1.92E+00 | -1.93E+00 | -6.81E-01 |
| Non-re. PER as material | MJ | 4.28E-02 | 0.00E+00 | 8.76E-02 | 1.30E-01 | 0.00E+00 | -8.76E-02 | MNR | MNR | MNR | MNR | MNR | MND | MNR | MNR | 0.00E+00 | 0.00E+00 | -4.28E-02 | 0.00E+00 |
| Total use of non-re. PER | MJ | 1.30E+01 | 2.66E+00 | 1.68E+01 | 3.24E+01 | 2.66E+00 | 9.08E-02 | MNR | MNR | MNR | MNR | MNR | MND | MNR | MNR | 2.51E-02 | -1.92E+00 | -1.97E+00 | -6.81E-01 |
| Secondary materials | kg | 6.90E-03 | 1.13E-03 | 5.36E-01 | 5.44E-01 | 1.13E-03 | 2.60E-04 | MNR | MNR | MNR | MNR | MNR | MND | MNR | MNR | 1.07E-05 | 2.26E-05 | 1.37E-05 | -6.17E-05 |
| Renew. secondary fuels | MJ | 6.26E-04 | 1.44E-05 | 7.76E-02 | 7.82E-02 | 1.44E-05 | 4.14E-06 | MNR | MNR | MNR | MNR | MNR | MND | MNR | MNR | 1.36E-07 | 7.41E-07 | 4.16E-07 | -4.06E-05 |
| Non-ren. secondary fuels | MJ | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | MNR | MNR | MNR | MNR | MNR | MND | MNR | MNR | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| Use of net fresh water | $m^3$ | 5.90E-03 | 3.93E-04 | 1.39E-02 | 2.02E-02 | 3.93E-04 | 8.38E-04 | MNR | MNR | MNR | MNR | MNR | MND | MNR | MNR | 3.71E-06 | 1.44E-04 | -2.71E-05 | -1.95E-04 |

*8) PER = Primary energy resources.*

## END OF LIFE – WASTE

| Impact category | Unit | A1 | A2 | A3 | A1-A3 | A4 | A5 | B1 | B2 | B3 | B4 | B5 | B6 | B7 | C1 | C2 | C3 | C4 | D |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Hazardous waste | kg | 6.93E-02 | 4.51E-03 | 7.19E-02 | 1.46E-01 | 4.51E-03 | 1.50E-02 | MNR | MNR | MNR | MNR | MNR | MND | MNR | MNR | 4.25E-05 | 2.19E-03 | 1.11E-03 | -5.73E-03 |
| Non-hazardous waste | kg | 1.93E+00 | 8.34E-02 | 1.89E+00 | 3.90E+00 | 8.34E-02 | 7.89E-01 | MNR | MNR | MNR | MNR | MNR | MND | MNR | MNR | 7.87E-04 | 5.92E-02 | 1.63E-01 | -1.12E-01 |
| Radioactive waste | kg | 1.50E-05 | 5.67E-07 | 1.38E-05 | 2.94E-05 | 5.67E-07 | 8.49E-08 | MNR | MNR | MNR | MNR | MNR | MND | MNR | MNR | 5.35E-09 | 1.14E-08 | 7.46E-09 | -6.65E-07 |

## END OF LIFE – OUTPUT FLOWS

| Impact category | Unit | A1 | A2 | A3 | A1-A3 | A4 | A5 | B1 | B2 | B3 | B4 | B5 | B6 | B7 | C1 | C2 | C3 | C4 | D |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Components for re-use | kg | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | MNR | MNR | MNR | MNR | MNR | MND | MNR | MNR | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| Materials for recycling | kg | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | MNR | MNR | MNR | MNR | MNR | MND | MNR | MNR | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| Materials for energy rec | kg | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | MNR | MNR | MNR | MNR | MNR | MND | MNR | MNR | 0.00E+00 | 5.35E-02 | 0.00E+00 | 0.00E+00 |
| Exported energy | MJ | 0.00E+00 | 0.00E+00 | 1.86E-02 | 1.86E-02 | 0.00E+00 | 0.00E+00 | MNR | MNR | MNR | MNR | MNR | MND | MNR | MNR | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |

## ENVIRONMENTAL IMPACTS – EN 15804+A1, CML / ISO 21930

| Impact category | Unit | A1 | A2 | A3 | A1-A3 | A4 | A5 | B1 | B2 | B3 | B4 | B5 | B6 | B7 | C1 | C2 | C3 | C4 | D |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Global Warming Pot. | kg $CO_2$e | 9.12E-01 | 1.82E-01 | 1.30E+00 | 2.40E+00 | 1.82E-01 | 2.49E-02 | MNR | MNR | MNR | MNR | MNR | MND | MNR | MNR | 1.72E-03 | 1.27E-01 | 6.61E-02 | -7.22E-02 |
| Ozone depletion Pot. | kg $CFC_{-11}$e | 2.13E-08 | 2.16E-09 | 2.92E-08 | 5.27E-08 | 2.16E-09 | 3.00E-10 | MNR | MNR | MNR | MNR | MNR | MND | MNR | MNR | 2.04E-11 | 4.18E-11 | 2.72E-11 | -1.82E-10 |
| Acidification | kg $SO_2$e | 3.46E-03 | 4.78E-04 | 3.91E-03 | 7.84E-03 | 4.78E-04 | 1.49E-04 | MNR | MNR | MNR | MNR | MNR | MND | MNR | MNR | 4.50E-06 | 2.06E-05 | 1.20E-05 | -4.63E-04 |
| Eutrophication | kg $PO_4^3$e | 2.94E-03 | 1.16E-04 | 2.66E-03 | 5.72E-03 | 1.16E-04 | 5.05E-05 | MNR | MNR | MNR | MNR | MNR | MND | MNR | MNR | 1.10E-06 | 7.36E-06 | 6.52E-06 | -5.61E-05 |
| POCP (“smog”) | kg $C_2H_4$e | 4.41E-04 | 4.26E-05 | 4.76E-04 | 9.60E-04 | 4.26E-05 | 1.06E-05 | MNR | MNR | MNR | MNR | MNR | MND | MNR | MNR | 4.01E-07 | 1.36E-06 | 1.16E-06 | -2.68E-05 |
| ADP-elements | kg Sbe | 2.30E-05 | 4.99E-07 | 4.52E-06 | 2.80E-05 | 4.99E-07 | 4.60E-08 | MNR | MNR | MNR | MNR | MNR | MND | MNR | MNR | 4.70E-09 | 6.34E-09 | 3.84E-09 | -2.93E-08 |
| ADP-fossil | MJ | 1.52E+01 | 2.63E+00 | 1.62E+01 | 3.40E+01 | 2.63E+00 | 1.73E-01 | MNR | MNR | MNR | MNR | MNR | MND | MNR | MNR | 2.47E-02 | 2.41E-02 | 1.87E-02 | -6.38E-01 |

# ANNEX

## USE PHASE (B6) VALUES FOR DIFFERENT COUNTRY MIX

The table in this annex is useful for conversion and comparison of B6 values with other energy country mix. The Global Warming Potential Total (GWP tot) value is illustrated for each country. The value refers to 1 kwh.

Example on how to use the table:

This EPD was done according to a specific customer use location that can be read in the paragraph **PRODUCT USE AND MAINTENANCE (B1-B7).**

If for example the EPD was done according to EU energy mix and you want to see how the GWP total changes according to a Finland country energy mix, you can take the original value in the results table here highlighed in yellow:

## ENVIRONMENTAL IMPACT DATA

### CORE ENVIRONMENTAL IMPACT INDICATORS – EN 15804+A2, PEF

| Impact category | Unit | A1 | A2 | A3 | A1-A3 | A4 | A5 | B1 | B2 | B3 | B4 | B5 | B6 | B7 | C1 | C2 | C3 | C4 | D |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| GWP – total[1)] | kg CO2e | 5,88E+00 | 2,61E-01 | -1,25E-01 | 6,02E+00 | 3,02E-01 | 5,41E-01 | MND | MND | MND | MND | MND | 4,06E+02 | MND | MNR | 1,77E-02 | 2,62E-01 | 1,88E-01 | -1,09E+01 |

Divide that value according to the EU value from the following table (EU = 3.30E-01) and then multilplying for the Finland value from the same table (FINLAND = 1.50E-01).

Thus, the calculation of this example would be:

New B6 GWP tot for Finland = (4.06E-02 / 3.30E-01) x 1.5E-01 = 1.8E-02

| Country | GWP tot (kg CO2 eq. per kwh) |
|---|---|
| AFRICA | 7.30E-01 |
| APAC | 9.50E-01 |
| AUSTRALIA | 9.20E-01 |
| AUSTRIA | 2.30E-01 |
| BELGIUM | 2.00E-01 |
| CHINA | 1.0E+00 |
| DENMARK | 1.50E-01 |
| EU | 3.30E-01 |
| FINLAND | 1.50E-01 |
| FRANCE | 9.00E-02 |
| GERMANY | 9.90E-01 |
| HUNGARY | 3.70 -01 |
| INDIA | 1.50E+00 |
| IRELAND | 3.50E-01 |
| ITALY | 3.50E-01 |
| LATAM | 3.80E-01 |
| NAM | 4,50E-01 |
| NETHERLANDS | 3.90E-01 |

| | |
|---|---|
| NORWAY | 2.00E-02 |
| POLAND | 9.30E-01 |
| PORTUGAL | 2.70E-01 |
| ROW | 7.30E-01 |
| SPAIN | 2.00E-01 |
| SWEDEN | 3.00E-02 |
| SWITZERLAND | 3.00E-02 |
| UK | 2.60E-01 |

Source Ecoinvent 3.10.1

## PRODUCTS COVERED UNDER THIS EPD

915006293688 - 93633309 SLD20 Back Cover 2000 White Structure

915006293689 - 93633332 SLD20 Back Cover 2000 Black Structure