

# **ENVIRONMENTAL PRODUCT DECLARATION**

**IN ACCORDANCE WITH EN 15804+A2 & ISO 14025 / ISO 21930**

**AS VILJANDI AKEN JA UKS**

**LIGHT INTERNAL DOORS**

**LIGHT INTERNAL DOORS WITH GLASS**

**FLUSH MASSIVE INTERNAL DOORS**

**FLUSH MASSIVE INTERNAL DOORS WITH GLASS**

**MOULDED MASSIVE INTERNAL DOORS**

**MOULDED MASSIVE INTERNAL DOORS WITH GLASS**

# GENERAL INFORMATION

## MANUFACTURER INFORMATION

|                               |                            |
|-------------------------------|----------------------------|
| <b>Manufacturer</b>           | AS Viljandi Aken ja Uks    |
| <b>Address</b>                | Puidu 6, Viljandi, Estonia |
| <b>Contact details</b>        | vau@vau.ee                 |
| <b>Website</b>                | www.vau.ee                 |
| <b>Place(s) of production</b> | Estonia                    |

### The Building Information Foundation RTS sr

EPDs within the same product category but from different programmes may not be comparable.



Jukka Seppänen  
RTS EPD Committee Secretary



Laura Apilo  
Managing Director

## EPD INFORMATION

The EPD owner has the sole ownership, liability, and responsibility for the EPD. Construction products EPDs may not be comparable if they do not comply with EN 15804 and if they are not compared in a building context.

|                               |                                                                                                                                                                                          |
|-------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>EPD program operator</b>   | The Building Information Foundation RTS sr                                                                                                                                               |
| <b>EPD standards</b>          | This EPD is in accordance with EN 15804+A2 and ISO 14025 standards.                                                                                                                      |
| <b>Product category rules</b> | The CEN standard EN 15804 serves as the core PCR. In addition, the RTS PCR (English version, 26.8.2020); EN 17213:2020 is used.                                                          |
| <b>EPD author</b>             | Mari Kirss<br>Rangi Maja OÜ<br>www.lcasupport.com                                                                                                                                        |
| <b>EPD verification</b>       | Independent verification of this EPD and data, according to ISO 14025:2010:<br><input type="checkbox"/> Internal certification <input checked="" type="checkbox"/> External verification |
| <b>Verification date</b>      | 21 December 2022                                                                                                                                                                         |
| <b>EPD verifier</b>           | Sigita Židonienė<br>Vesta Consulting UAB<br>www.vestaconsulting.lt<br>                              |
| <b>EPD number</b>             | RTS_202_23                                                                                                                                                                               |
| <b>Publishing date</b>        | 11.01.2023                                                                                                                                                                               |



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**EPD valid until** 11.01.2028

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## PRODUCT INFORMATION

### PRODUCT NAME

- Light internal doors moulded and flush (non-rebated and rebated)
- Light internal doors with glass moulded and flush (non-rebated and rebated)
- Flush massive internal doors (non-rebated and rebated)
- Flush massive internal doors with glass (non-rebated and rebated)
- Moulded massive internal doors (non-rebated and rebated)
- Moulded massive internal doors with glass (non-rebated and rebated)

### PRODUCT DESCRIPTION AND APPLICATION

Light or massive, rebated or non-rebated wooden internal doors with or without glass

### TECHNICAL SPECIFICATIONS

Size: one sided M7-10 x 20-21; extended M13,4 x 20-21; double sided M13,4;15,4;17,4;19,4 x 20-21. The declared unit has been based on one sided M 9 x 21 door.

Door leaf: rebated or non-rebated, thickness 40mm

Fittings: lock case 2014; hinges FT-65 or 6540

Glass: clear, diamante, cotzwold or satinovo

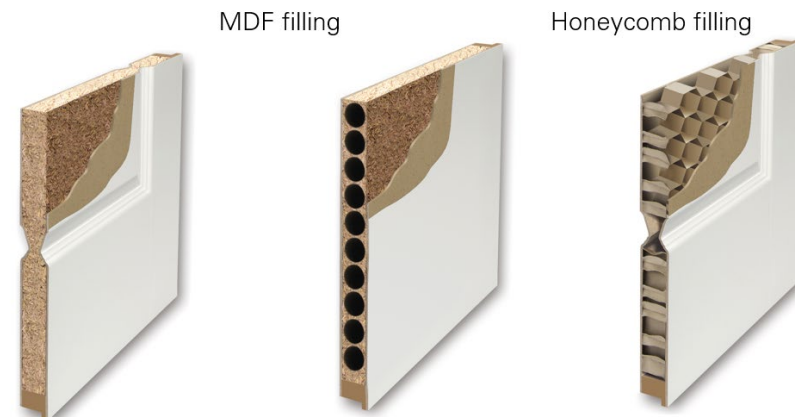
The declared unit includes fittings but not frames or extras.

## PRODUCT STANDARDS

EVS-EN 14351-2:2019

## PHYSICAL PROPERTIES OF THE PRODUCT AND ADDITIONAL TECHNICAL INFORMATION

Product properties and further information can be found on the manufacturer website [www.vau.ee](http://www.vau.ee)



## PRODUCT RAW MATERIAL MAIN COMPOSITION

|                                                             | Light internal door | Light internal door with glass | Massive internal door | Massive internal door with glass | Massive moulded internal door | Massive moulded internal door with glass |
|-------------------------------------------------------------|---------------------|--------------------------------|-----------------------|----------------------------------|-------------------------------|------------------------------------------|
| MDF, HDF, particleboard and other wood-based materials (kg) | 12.9                | 11.7                           | 23.9                  | 22.5                             | 34.7                          | 33.1                                     |
| Glass (kg)                                                  | 0.0                 | 7.9                            | 0.0                   | 7.7                              | 0.0                           | 8.0                                      |
| Adhesives and coatings (kg)                                 | 1.1                 | 1.1                            | 1.0                   | 1.0                              | 1.2                           | 1.2                                      |
| Metals (kg)                                                 | <1                  | <1                             | <1                    | <1                               | <1                            | <1                                       |
| Plastic (kg)                                                | 0.0                 | 1.4                            | 0.0                   | 0.9                              | 0.0                           | 1.8                                      |
| Other materials (kg)                                        | <1                  | <1                             | <1                    | <1                               | <1                            | <1                                       |
| Packaging (kg)                                              | 3.0                 | 3.0                            | 3.0                   | 3.0                              | 3.0                           | 3.0                                      |
| Total (kg)                                                  | 14.7                | 22.7                           | 25.3                  | 32.6                             | 36.3                          | 44.5                                     |
| Total with packaging (kg)                                   | 17.8                | 25.7                           | 28.4                  | 35.6                             | 39.4                          | 47.6                                     |

| Raw material category | Amount, mass- % | Material origin |
|-----------------------|-----------------|-----------------|
| Metals                | 1-3%            | Europe          |
| Minerals              | 0-35%           | Europe          |
| Fossil materials      | 3-11%           | Europe          |
| Bio-based materials   | 53-96%          | Global          |

## SUBSTANCES, REACH - VERY HIGH CONCERN

The product does not contain any REACH SVHC substances in amounts greater than 0,1 % (1000 ppm).

Light internal doors –  
moulded, non-rebated, rebated or flush



Light internal doors with glass –  
moulded, non-rebated, rebated or flush



Flush massive internal doors –  
non-rebated or rebated

Flush massive internal doors with glass –  
non-rebated or rebated

Moulded massive internal doors –  
non-rebated or rebated



Moulded massive internal doors with glass –  
non-rebated or rebated

## ABOUT THE MANUFACTURER

Viljandi Aken ja Uks has been one of the largest producers of windows and doors in the Baltic for thirty years, with the aim of producing high-quality windows and doors. The company has seen consistent growth over the years, which has resulted in us becoming one of the largest Scandinavian producers of windows and doors.

Currently, you can find our production units in Viljandi, Võru County and Latvia. Our sales offices are in Viljandi, Tallinn, Stockholm, Riga, Vilnius and Klaipeda.

Starting with 35 employees in 1990, we are now one of the largest employers in Viljandi County, providing employment for more than 600 people.

The range of products has been constantly expanding based on customer needs and market demand. The company has implemented a quality management system in accordance with the requirements of the ISO 9001 standard. Due to the growth of the company, we have constantly expanded our production areas, which today make up over 51,600m<sup>2</sup>.

Over time, we have invested in modern equipment and production lines to provide our customers with faster delivery times and production that meets today's standards and quality requirements.

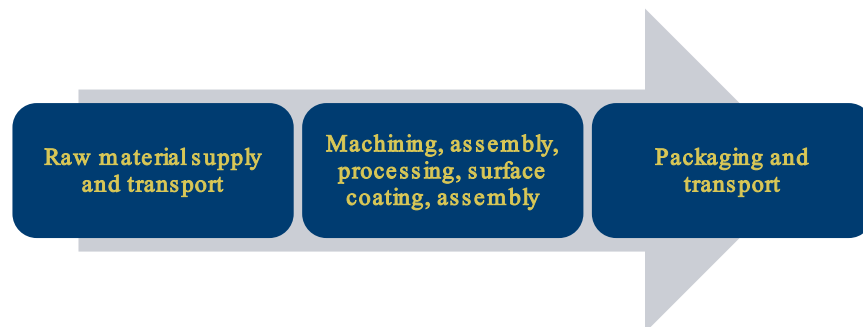


# PRODUCT LIFE-CYCLE

## 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, fuels used by machines, and handling of waste formed in the production processes at the manufacturing facilities are included in this stage. The study also considers the material losses occurring during the manufacturing processes as well as losses during electricity transmission.

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The production process begins with unpacking raw materials. After raw materials have been processed the door leaf will be assembled and glued together using hot pressing method. When the door leaf has been pressed it will get a opening for the glazing if necessary and then surface coating. After surface coating door leaves will dry and will be equipped with necessary ironmongery, glazing and seals. Depending on the door type and order the door will be equipped with a frame and assembled as a set. Before packing and stacking door panels to transportation pallets, final quality checks will be conducted. After that the products will be ready for transportation to the construction site.

## TRANSPORT AND INSTALLATION (A4-A5)

Transportation impacts occurred from final products delivery to construction site (A4) cover fuel direct exhaust emissions, environmental impacts of fuel production, as well as related infrastructure emissions.

The transportation distance is defined according to RTS PCR. The typical installation place was assumed as an weighted average. According to the manufacturer, transportation doesn't cause losses as products are packaged properly. The final product is transported 1000 km by lorry. Vehicle capacity utilization volume factor is assumed to be 1.

Environmental impacts from installation into the building (A5) include the product installation losses, emissions of energy use in installation and generation of waste at the construction site.

No Product waste is generated during installation. Packaging waste comes from the packaging used for the final products. No water is

needed for the installation process. The fasteners have been excluded as cut-off has been applied.

## PRODUCT USE AND MAINTENANCE (B1-B7)

This EPD does not cover the use phase.

Air, soil, and water impacts during the use phase have not been studied.

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

EOL scenarios have been based on default scenarios given in standard EN 17213:2020. It is estimated that there is no mass loss during the use phase of the product. Therefore the end-of-life product is assumed to have the same weight with the declared product. Losses in the sorting process are assumed to be very small and not considered in the assessment.

In the demolition phase, 100% of the waste is assumed to be collected as separate waste (C1). No fuels are assumed to be needed for demolition. 95% of non-glass and 30% of glass is assumed to be sent to the closest facilities (C2) for recycling. Vehicle capacity utilization volume factor is assumed to be 1. 30% of total glass and 95% of total metals is recycled; 95% of total plastics and 95% of total timber is incinerated with energy recovery (C3). 5% of total non-glass and 70% of total glass is landfilled (C4). Cut-off has been applied to exclude fasteners and extras.

Benefits of recyclable waste generated in the Module C3 are considered in Module D. It is assumed that glass is used as aggregates and metals are remelted. Plastics and timber are assumed to be incinerated for energy recovery.

## LIFE-CYCLE ASSESSMENT INFORMATION

|                        |                                                                                                                                                                                                                                                                               |
|------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Period for data        | 2021                                                                                                                                                                                                                                                                          |
| Declared unit          | 1 m2                                                                                                                                                                                                                                                                          |
| Mass per declared unit | Light internal doors - 14.7 kg<br>Light internal doors with glass - 22.7 kg<br>Flush massive internal doors - 25.3 kg<br>Flush massive internal doors with glass - 32.6 kg<br>Moulded massive internal doors - 36.3 kg<br>Moulded massive internal doors with glass - 44.5 kg |

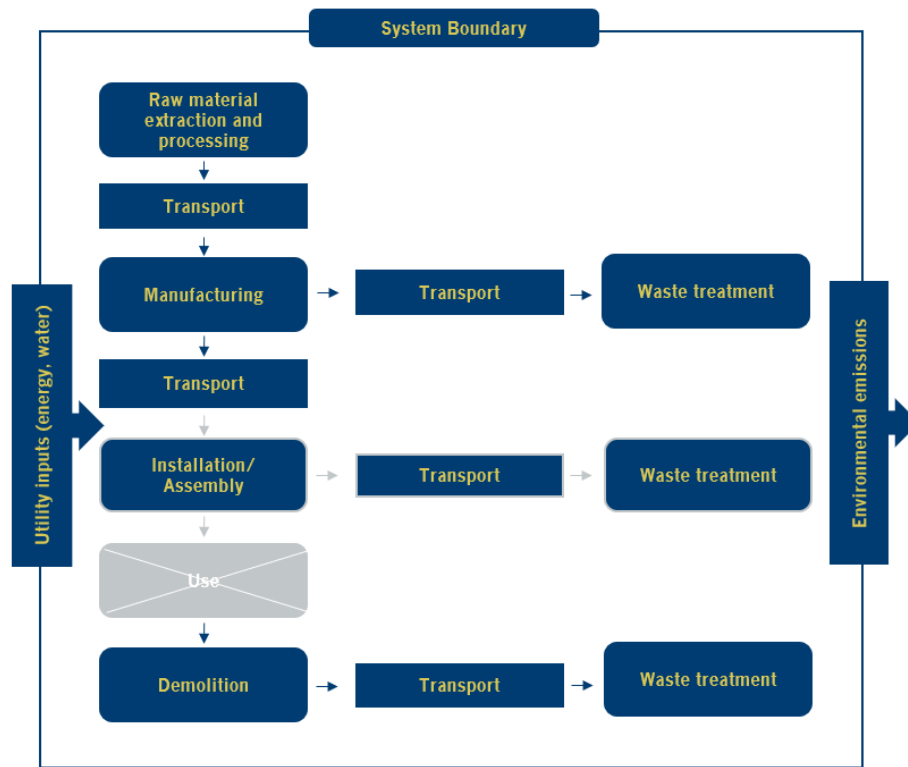
## BIOGENIC CARBON CONTENT AT GATE

|                                      |                                                                                                                                                                                                                                                                            |
|--------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Biogenic carbon content in product   | Light internal doors - 5.8 kg<br>Light internal doors with glass - 5.4 kg<br>Flush massive internal doors - 10.3 kg<br>Flush massive internal doors with glass - 9.8 kg<br>Moulded massive internal doors - 14.8 kg<br>Moulded massive internal doors with glass - 14.2 kg |
| Biogenic carbon content in packaging | 1.25 kg                                                                                                                                                                                                                                                                    |

**Note. 1 kg biogenic carbon is equivalent to 44/12 kg of biogenic CO<sub>2</sub>.**

## SYSTEM BOUNDARY

The scope of the EPD is cradle to gate with options (A4 and A5), modules C1–C4 and module D.



| 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                            | D        | D         |
| x             | x         | x             | x              | x        | MND       | MND         | MND    | MND         | MND           | MND                    | MND                   |  | x                 | x         | x                | 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 declared = MND. Modules not relevant = MNR.

## CUT-OFF CRITERIA

The study does not exclude any modules or processes which are stated mandatory in the EN 15804:2012+A2:2019 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.

Cut-off has only been applied in A5 and EOL to exclude fasteners.

## BIOGENIC CARBON AND GWP-BIOGENIC

Biogenic carbon content in Products and packaging has been calculated according to EN 16449. Irrespective of the chosen allocation for co-products, biogenic carbon content reflects physical flows.

In the ecoinvent database, datasets with multiple products are allocated in the attributional system models, most frequently using price. When products have large difference in value, this leads to an allocation of most of the impacts to the more valuable product and can lead to a discrepancy between the biogenic carbon content of a product and the amount allocated to it based on the life cycle inventory (Ruiz et al, 2021). Therefore, GWP-biogenic values have been recalculated based on EN 16449 and EN 16485:2014. Carbon sequestration and carbon neutrality has only been assumed for sustainable wood (FSC-certified).

| Share of biogenic carbon originating from sustainable (FSC-certified) sources |      |
|-------------------------------------------------------------------------------|------|
| Light internal doors                                                          | 100% |
| Light internal doors with glass                                               | 93%  |
| Flush massive internal doors                                                  | 86%  |
| Flush massive internal doors with glass                                       | 81%  |
| Moulded massive internal doors                                                | 81%  |
| Moulded massive internal doors with glass                                     | 78%  |

## SCENARIO DOCUMENTATION

### Manufacturing energy scenario documentation

| Scenario parameter                  | Value                                                             |
|-------------------------------------|-------------------------------------------------------------------|
| Electricity data source and quality | Modelled electricity based on Estonian residual mix for 2020-2021 |
| Electricity CO <sub>2e</sub> / kWh  | 0.60                                                              |

### Transport scenario documentation (A4)

| Scenario parameter                                                              | Value            |
|---------------------------------------------------------------------------------|------------------|
| Specific transport CO <sub>2e</sub> emissions, kg CO <sub>2e</sub> / tkm        | 0.094            |
| Average transport distance, km                                                  | 1000 km by lorry |
| Capacity utilization (including empty return) %                                 | 100              |
| Volume capacity utilization factor                                              | =1               |
| Bulk density of transported products (including packaging), kg/m <sup>3</sup> : |                  |
| Light internal doors - 17.8 kg                                                  |                  |
| Light internal doors with glass - 25.7 kg                                       |                  |
| Flush massive internal doors - 28.4 kg                                          |                  |
| Flush massive internal doors with glass - 35.6 kg                               |                  |
| Moulded massive internal doors - 39.4 kg                                        |                  |
| Moulded massive internal doors with glass - 47.6 kg                             |                  |

### End of life scenario documentation

| Scenario parameter                                 | Light internal door                                             | Light internal door with glass | Massive internal door | Massive internal door with glass | Massive moulded internal door | Massive moulded internal door |
|----------------------------------------------------|-----------------------------------------------------------------|--------------------------------|-----------------------|----------------------------------|-------------------------------|-------------------------------|
| Collection process – kg collected separately       | 14.7                                                            | 22.7                           | 25.3                  | 32.6                             | 36.3                          | 44.5                          |
| Collection process – kg collected with mixed waste | 0.0                                                             | 0.0                            | 0.0                   | 0.0                              | 0.0                           | 0.0                           |
| Recovery process – kg for re-use                   | 0.0                                                             | 0.0                            | 0.0                   | 0.0                              | 0.0                           | 0.0                           |
| Recovery process – kg for recycling                | 0.4                                                             | 2.7                            | 0.4                   | 2.7                              | 0.4                           | 2.7                           |
| Recovery process – kg for energy recovery          | 14.4                                                            | 20.0                           | 25.0                  | 29.9                             | 36.0                          | 41.8                          |
| Disposal (total) – kg for final deposition         | 0.7                                                             | 6.8                            | 1.3                   | 7.2                              | 1.8                           | 8.0                           |
| Scenario assumptions e.g. transportation           | End-of-life product is transported 250 km with an average lorry |                                |                       |                                  |                               |                               |

# ENVIRONMENTAL IMPACT DATA

## LIGHT INTERNAL DOORS

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

| Impact category         | Unit                   | A1-A2     | A3       | A1-A3     | A4       | A5       | C1       | C2       | C3        | C4       | D         |
|-------------------------|------------------------|-----------|----------|-----------|----------|----------|----------|----------|-----------|----------|-----------|
| GWP – total             | kg CO <sub>2</sub> e   | 1.94E+00  | 2.03E+01 | 2.22E+01  | 1.67E+00 | 3.85E+00 | 0.00E+00 | 6.26E-01 | 4.21E+01  | 8.10E-03 | -2.05E+01 |
| GWP – fossil            | kg CO <sub>2</sub> e   | 2.77E+01  | 1.33E+01 | 4.10E+01  | 1.67E+00 | 1.58E+00 | 0.00E+00 | 6.26E-01 | 1.12E+00  | 8.10E-03 | -2.06E+01 |
| GWP – biogenic          | kg CO <sub>2</sub> e   | -2.63E+01 | 6.74E+00 | -1.95E+01 | 9.23E-04 | 2.27E+00 | 0.00E+00 | 2.47E-04 | 4.09E+01  | 6.26E-05 | 4.51E-03  |
| GWP – LULUC             | kg CO <sub>2</sub> e   | 4.79E-01  | 3.02E-01 | 7.81E-01  | 5.15E-04 | 3.33E-05 | 0.00E+00 | 2.36E-04 | 4.78E-03  | 3.75E-06 | 3.98E-03  |
| Ozone depletion pot.    | kg CFC <sub>11</sub> e | 2.66E-06  | 9.48E-07 | 3.61E-06  | 3.73E-07 | 1.09E-08 | 0.00E+00 | 1.40E-07 | 2.16E-08  | 2.43E-09 | -1.64E-06 |
| Acidification potential | mol H <sup>+</sup> e   | 2.06E-01  | 7.31E-02 | 2.79E-01  | 7.10E-03 | 9.70E-04 | 0.00E+00 | 2.65E-03 | 2.71E-03  | 6.63E-05 | -3.67E-02 |
| EP-freshwater           | kg Pe                  | 2.58E-03  | 4.86E-04 | 3.07E-03  | 1.58E-05 | 1.91E-06 | 0.00E+00 | 6.26E-06 | 3.68E-06  | 1.33E-07 | -5.41E-05 |
| EP-marine               | kg Ne                  | 3.49E-02  | 1.15E-02 | 4.65E-02  | 2.13E-03 | 4.24E-04 | 0.00E+00 | 7.73E-04 | 1.23E-03  | 2.21E-05 | -7.77E-03 |
| EP-terrestrial          | mol Ne                 | 4.55E-01  | 1.33E-01 | 5.88E-01  | 2.31E-02 | 4.24E-03 | 0.00E+00 | 8.47E-03 | 1.29E-02  | 2.50E-04 | -8.39E-02 |
| POCP (“smog”)           | kg NMVOCe              | 1.31E-01  | 3.93E-02 | 1.71E-01  | 7.46E-03 | 1.06E-03 | 0.00E+00 | 2.61E-03 | 3.14E-03  | 7.14E-05 | -3.02E-02 |
| ADP-minerals & metals   | kg Sbe                 | 2.35E-03  | 5.35E-05 | 2.40E-03  | 2.84E-05 | 1.91E-06 | 0.00E+00 | 1.69E-05 | 3.77E-06  | 8.10E-08 | -1.10E-05 |
| ADP-fossil resources    | MJ                     | 3.95E+02  | 2.50E+02 | 6.45E+02  | 2.54E+01 | 9.09E-01 | 0.00E+00 | 9.42E+00 | 2.18E+00  | 1.84E-01 | -3.10E+02 |
| Water use               | m <sup>3</sup> e depr. | 2.03E+01  | 4.09E+00 | 2.44E+01  | 1.08E-01 | 1.15E-01 | 0.00E+00 | 3.61E-02 | -6.97E-02 | 8.10E-03 | -9.04E-01 |

GWP = Global Warming Potential; EP = Eutrophication potential; POCP = Photochemical ozone formation; ADP = Abiotic depletion potential.

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 experienced with the indicator.

## USE OF NATURAL RESOURCES

| Impact category          | Unit           | A1-A2    | A3        | A1-A3    | A4       | A5        | C1       | C2       | C3        | C4        | D         |
|--------------------------|----------------|----------|-----------|----------|----------|-----------|----------|----------|-----------|-----------|-----------|
| Renew. PER as energy     | MJ             | 2.39E+02 | 1.55E+01  | 2.54E+02 | 2.66E-01 | 2.97E-02  | 0.00E+00 | 1.07E-01 | 5.67E-02  | 3.02E-03  | -1.64E-01 |
| Renew. PER as material   | MJ             | 2.07E+02 | -2.00E+01 | 1.87E+02 | 0.00E+00 | -2.35E+01 | 0.00E+00 | 0.00E+00 | -1.55E+02 | -8.15E+00 | -1.55E+02 |
| Total use of renew. PER  | MJ             | 4.46E+02 | -4.55E+00 | 4.41E+02 | 2.66E-01 | -2.35E+01 | 0.00E+00 | 1.07E-01 | -1.55E+02 | -8.15E+00 | -1.55E+02 |
| Non-re. PER as energy    | MJ             | 3.92E+02 | 2.40E+02  | 6.32E+02 | 2.54E+01 | 9.09E-01  | 0.00E+00 | 9.42E+00 | 2.18E+00  | 1.84E-01  | -3.10E+02 |
| Non-re. PER as material  | MJ             | 2.93E+00 | 1.00E+01  | 1.30E+01 | 0.00E+00 | -1.00E+01 | 0.00E+00 | 0.00E+00 | -2.78E+00 | -1.47E-01 | -2.78E+00 |
| Total use of non-re. PER | MJ             | 3.95E+02 | 2.50E+02  | 6.45E+02 | 2.54E+01 | -9.13E+00 | 0.00E+00 | 9.42E+00 | -6.04E-01 | 3.75E-02  | -3.13E+02 |
| Secondary materials      | kg             | 1.06E-01 | 8.61E-03  | 1.14E-01 | 0.00E+00 | 0.00E+00  | 0.00E+00 | 0.00E+00 | 0.00E+00  | 0.00E+00  | 3.64E-01  |
| Renew. secondary fuels   | MJ             | 0.00E+00 | 0.00E+00  | 0.00E+00 | 0.00E+00 | 0.00E+00  | 0.00E+00 | 0.00E+00 | 0.00E+00  | 0.00E+00  | 1.44E+02  |
| Non-ren. secondary fuels | MJ             | 0.00E+00 | 0.00E+00  | 0.00E+00 | 0.00E+00 | 0.00E+00  | 0.00E+00 | 0.00E+00 | 0.00E+00  | 0.00E+00  | 0.00E+00  |
| Use of net fresh water   | m <sup>3</sup> | 2.17E-01 | 6.06E-02  | 2.78E-01 | 5.33E-03 | 4.85E-03  | 0.00E+00 | 1.62E-03 | 6.15E-03  | 2.06E-04  | -8.07E-02 |

PER = Primary energy resources

## END OF LIFE – WASTE

| Impact category     | Unit | A1-A2    | A3       | A1-A3    | A4       | A5       | C1       | C2       | C3       | C4       | D         |
|---------------------|------|----------|----------|----------|----------|----------|----------|----------|----------|----------|-----------|
| Hazardous waste     | kg   | 2.04E+00 | 1.15E+00 | 3.19E+00 | 3.02E-02 | 1.09E-01 | 0.00E+00 | 1.21E-02 | 1.55E-01 | 3.17E-04 | -1.92E-01 |
| Non-hazardous waste | kg   | 4.95E+01 | 2.01E+01 | 6.96E+01 | 2.84E+00 | 2.91E+00 | 0.00E+00 | 6.99E-01 | 1.42E+01 | 7.36E-01 | -2.09E+00 |
| Radioactive waste   | kg   | 9.93E-04 | 8.84E-04 | 1.88E-03 | 1.70E-04 | 3.00E-06 | 0.00E+00 | 6.26E-05 | 5.47E-06 | 1.10E-06 | -2.52E-05 |

## END OF LIFE – OUTPUT FLOWS

| Impact category          | Unit | A1-A2    | A3       | A1-A3    | A4       | A5       | 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 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| Materials for recycling  | kg   | 0.00E+00 | 8.32E-02 | 8.32E-02 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 3.64E-01 | 0.00E+00 | 0.00E+00 |
| Materials for energy rec | kg   | 0.00E+00 | 1.04E+00 | 1.04E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.44E+01 | 0.00E+00 | 0.00E+00 |
| Exported energy          | MJ   | 0.00E+00 | 1.05E+01 | 1.05E+01 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.44E+02 | 0.00E+00 | 0.00E+00 |

## Key information table (RTS) – key information per kg of product

| Impact category       | Unit                   | A1-A2    | A3       | A1-A3    | A4       | A5       | C1       | C2       | C3        | C4       | D         |
|-----------------------|------------------------|----------|----------|----------|----------|----------|----------|----------|-----------|----------|-----------|
| GWP – total           | kg CO <sub>2</sub> e   | 1.94E+00 | 2.03E+01 | 2.22E+01 | 1.67E+00 | 3.85E+00 | 0.00E+00 | 6.26E-01 | 4.21E+01  | 8.10E-03 | -2.05E+01 |
| ADP-minerals & metals | kg Sbe                 | 2.35E-03 | 5.35E-05 | 2.40E-03 | 2.84E-05 | 1.91E-06 | 0.00E+00 | 1.69E-05 | 3.77E-06  | 8.10E-08 | -1.10E-05 |
| ADP-fossil            | MJ                     | 3.95E+02 | 2.50E+02 | 6.45E+02 | 2.54E+01 | 9.09E-01 | 0.00E+00 | 9.42E+00 | 2.18E+00  | 1.84E-01 | -3.10E+02 |
| Water use             | m <sup>3</sup> e depr. | 2.03E+01 | 4.09E+00 | 2.44E+01 | 1.08E-01 | 1.15E-01 | 0.00E+00 | 3.61E-02 | -6.97E-02 | 8.10E-03 | -9.04E-01 |
| Secondary materials   | kg                     | 1.06E-01 | 8.61E-03 | 1.14E-01 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00  | 0.00E+00 | 3.64E-01  |
| Biog. C in product    | kg C                   | N/A      | 5.79E+00 | N/A      | N/A      | N/A      | N/A      | N/A      | N/A       | N/A      | N/A       |
| Biog. C in packaging  | kg C                   | N/A      | 1.25E+00 | N/A      | N/A      | N/A      | N/A      | N/A      | N/A       | N/A      | N/A       |

## Environmental impacts – EN 15804+A1, CML / ISO 21930

| Impact category      | Unit                               | A1-A2    | A3       | A1-A3    | A4       | A5       | C1       | C2       | C3       | C4       | D         |
|----------------------|------------------------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|-----------|
| Global Warming Pot.  | kg CO <sub>2</sub> e               | 2.74E+01 | 1.28E+01 | 4.02E+01 | 1.65E+00 | 1.58E+00 | 0.00E+00 | 6.26E-01 | 1.12E+00 | 7.36E-03 | -1.93E+01 |
| Ozone depletion Pot. | kg CFC <sub>11</sub> e             | 2.26E-06 | 9.39E-07 | 3.20E-06 | 3.02E-07 | 1.09E-08 | 0.00E+00 | 1.10E-07 | 1.91E-08 | 1.91E-09 | -1.26E-06 |
| Acidification        | kg SO <sub>2</sub> e               | 1.67E-01 | 6.02E-02 | 2.28E-01 | 4.97E-03 | 6.67E-04 | 0.00E+00 | 1.95E-03 | 1.90E-03 | 5.30E-04 | -3.01E-02 |
| Eutrophication       | kg PO <sub>4</sub> <sup>3</sup> e  | 5.23E-02 | 1.74E-02 | 6.97E-02 | 1.12E-03 | 8.79E-04 | 0.00E+00 | 4.42E-04 | 2.16E-03 | 1.10E-05 | -4.45E-03 |
| POCP (“smog”)        | kg C <sub>2</sub> H <sub>4</sub> e | 1.07E-02 | 4.15E-03 | 1.49E-02 | 2.13E-04 | 1.85E-05 | 0.00E+00 | 8.47E-05 | 4.12E-05 | 1.99E-06 | -2.79E-03 |
| ADP-elements         | kg Sbe                             | 2.35E-03 | 5.35E-05 | 2.40E-03 | 2.84E-05 | 1.91E-06 | 0.00E+00 | 1.69E-05 | 3.77E-06 | 8.10E-08 | -1.10E-05 |
| ADP-fossil           | MJ                                 | 3.95E+02 | 2.50E+02 | 6.45E+02 | 2.54E+01 | 9.09E-01 | 0.00E+00 | 9.42E+00 | 2.18E+00 | 1.84E-01 | -3.10E+02 |

# LIGHT INTERNAL DOORS WITH GLASS

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

| Impact category         | Unit                   | A1-A2     | A3       | A1-A3     | A4       | A5       | C1       | C2       | C3       | C4       | D         |
|-------------------------|------------------------|-----------|----------|-----------|----------|----------|----------|----------|----------|----------|-----------|
| GWP – total             | kg CO <sub>2</sub> e   | 1.31E+01  | 3.36E+01 | 4.67E+01  | 2.42E+00 | 3.85E+00 | 0.00E+00 | 9.65E-01 | 4.89E+01 | 6.04E-02 | -2.56E+01 |
| GWP – fossil            | kg CO <sub>2</sub> e   | 4.29E+01  | 1.20E+01 | 5.49E+01  | 2.42E+00 | 1.58E+00 | 0.00E+00 | 9.65E-01 | 7.08E+00 | 6.04E-02 | -2.71E+01 |
| GWP – biogenic          | kg CO <sub>2</sub> e   | -3.02E+01 | 1.96E+01 | -1.07E+01 | 1.34E-03 | 2.27E+00 | 0.00E+00 | 3.80E-04 | 4.03E+01 | 1.81E-04 | 2.97E-03  |
| GWP – LULUC             | kg CO <sub>2</sub> e   | 4.89E-01  | 2.01E+00 | 2.50E+00  | 7.46E-04 | 3.33E-05 | 0.00E+00 | 3.63E-04 | 1.47E+00 | 2.53E-05 | 1.47E+00  |
| Ozone depletion pot.    | kg CFC <sub>11</sub> e | 5.13E-06  | 7.75E-07 | 5.90E-06  | 5.40E-07 | 1.09E-08 | 0.00E+00 | 2.16E-07 | 4.96E-08 | 1.97E-08 | -2.17E-06 |
| Acidification potential | mol H <sup>+</sup> e   | 3.23E-01  | 6.78E-02 | 3.91E-01  | 1.03E-02 | 9.70E-04 | 0.00E+00 | 4.09E-03 | 5.07E-03 | 5.01E-04 | -4.82E-02 |
| EP-freshwater           | kg Pe                  | 3.04E-03  | 4.44E-04 | 3.48E-03  | 2.29E-05 | 1.91E-06 | 0.00E+00 | 9.65E-06 | 8.24E-06 | 8.38E-07 | -6.98E-05 |
| EP-marine               | kg Ne                  | 5.57E-02  | 1.10E-02 | 6.66E-02  | 3.09E-03 | 4.24E-04 | 0.00E+00 | 1.19E-03 | 2.27E-03 | 1.71E-04 | -1.02E-02 |
| EP-terrestrial          | mol Ne                 | 7.06E-01  | 1.26E-01 | 8.31E-01  | 3.35E-02 | 4.24E-03 | 0.00E+00 | 1.31E-02 | 2.33E-02 | 1.92E-03 | -1.10E-01 |
| POCP (“smog”)           | kg NMVOCe              | 1.97E-01  | 3.50E-02 | 2.32E-01  | 1.08E-02 | 1.06E-03 | 0.00E+00 | 4.03E-03 | 5.74E-03 | 5.54E-04 | -3.91E-02 |
| ADP-minerals & metals   | kg Sbe                 | 2.61E-03  | 3.98E-05 | 2.65E-03  | 4.12E-05 | 1.91E-06 | 0.00E+00 | 2.61E-05 | 8.23E-06 | 8.02E-07 | -1.66E-05 |
| ADP-fossil resources    | MJ                     | 6.64E+02  | 2.11E+02 | 8.75E+02  | 3.68E+01 | 9.09E-01 | 0.00E+00 | 1.45E+01 | 4.47E+00 | 1.37E+00 | -4.10E+02 |
| Water use               | m <sup>3</sup> e depr. | 2.68E+01  | 1.97E+00 | 2.87E+01  | 1.57E-01 | 1.15E-01 | 0.00E+00 | 5.56E-02 | 3.14E-01 | 5.33E-02 | -1.21E+00 |

GWP = Global Warming Potential; EP = Eutrophication potential; POCP = Photochemical ozone formation; ADP = Abiotic depletion potential.

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.

## USE OF NATURAL RESOURCES

| Impact category          | Unit           | A1-A2    | A3        | A1-A3    | A4       | A5        | C1       | C2       | C3        | C4        | D         |
|--------------------------|----------------|----------|-----------|----------|----------|-----------|----------|----------|-----------|-----------|-----------|
| Renew. PER as energy     | MJ             | 2.91E+02 | 1.38E+01  | 3.05E+02 | 3.86E-01 | 2.97E-02  | 0.00E+00 | 1.65E-01 | 1.45E-01  | 1.68E-02  | -4.15E-01 |
| Renew. PER as material   | MJ             | 2.81E+02 | -7.34E+01 | 2.07E+02 | 0.00E+00 | -2.35E+01 | 0.00E+00 | 0.00E+00 | -1.72E+02 | -9.07E+00 | -1.72E+02 |
| Total use of renew. PER  | MJ             | 5.72E+02 | -5.96E+01 | 5.12E+02 | 3.86E-01 | -2.35E+01 | 0.00E+00 | 1.65E-01 | -1.72E+02 | -9.05E+00 | -1.73E+02 |
| Non-re. PER as energy    | MJ             | 5.95E+02 | 2.01E+02  | 7.96E+02 | 3.68E+01 | 9.09E-01  | 0.00E+00 | 1.45E+01 | 4.47E+00  | 1.37E+00  | -3.10E+02 |
| Non-re. PER as material  | MJ             | 6.88E+01 | 1.00E+01  | 7.89E+01 | 0.00E+00 | -1.00E+01 | 0.00E+00 | 0.00E+00 | -6.54E+01 | -3.44E+00 | -6.54E+01 |
| Total use of non-re. PER | MJ             | 6.64E+02 | 2.11E+02  | 8.75E+02 | 3.68E+01 | -9.13E+00 | 0.00E+00 | 1.45E+01 | -6.09E+01 | -2.07E+00 | -6.54E+01 |
| Secondary materials      | kg             | 1.36E-01 | 3.50E-03  | 1.39E-01 | 0.00E+00 | 0.00E+00  | 0.00E+00 | 0.00E+00 | 0.00E+00  | 0.00E+00  | 3.64E-01  |
| Renew. secondary fuels   | MJ             | 0.00E+00 | 0.00E+00  | 0.00E+00 | 0.00E+00 | 0.00E+00  | 0.00E+00 | 0.00E+00 | 0.00E+00  | 0.00E+00  | 1.44E+02  |
| Non-ren. secondary fuels | MJ             | 0.00E+00 | 0.00E+00  | 0.00E+00 | 0.00E+00 | 0.00E+00  | 0.00E+00 | 0.00E+00 | 0.00E+00  | 0.00E+00  | 0.00E+00  |
| Use of net fresh water   | m <sup>3</sup> | 4.43E+01 | 5.74E-02  | 4.43E+01 | 7.72E-03 | 4.85E-03  | 0.00E+00 | 2.50E-03 | 2.00E-02  | 1.30E-03  | -8.07E-02 |

PER = Primary energy resources

## END OF LIFE – WASTE

| Impact category     | Unit | A1-A2    | A3       | A1-A3    | A4       | A5       | C1       | C2       | C3       | C4       | D         |
|---------------------|------|----------|----------|----------|----------|----------|----------|----------|----------|----------|-----------|
| Hazardous waste     | kg   | 2.37E+00 | 1.13E+00 | 3.50E+00 | 4.38E-02 | 1.09E-01 | 0.00E+00 | 1.87E-02 | 3.88E-01 | 1.77E-03 | -2.37E-01 |
| Non-hazardous waste | kg   | 6.28E+01 | 2.21E+01 | 8.49E+01 | 4.12E+00 | 2.91E+00 | 0.00E+00 | 1.08E+00 | 2.00E+01 | 6.79E+00 | -2.78E+00 |
| Radioactive waste   | kg   | 1.63E-03 | 7.93E-04 | 2.42E-03 | 2.47E-04 | 3.00E-06 | 0.00E+00 | 9.65E-05 | 1.35E-05 | 9.09E-06 | -4.13E-05 |

## END OF LIFE – OUTPUT FLOWS

| Impact category          | Unit | A1-A2    | A3       | A1-A3    | A4       | A5       | 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 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| Materials for recycling  | kg   | 0.00E+00 | 8.32E-02 | 8.32E-02 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 2.71E+00 | 0.00E+00 | 0.00E+00 |
| Materials for energy rec | kg   | 0.00E+00 | 4.95E+00 | 4.95E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 2.00E+01 | 0.00E+00 | 0.00E+00 |
| Exported energy          | MJ   | 0.00E+00 | 5.04E+01 | 5.04E+01 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.90E+02 | 0.00E+00 | 0.00E+00 |

### Key information table (RTS) – key information per kg of product

| Impact category       | Unit                   | A1-A2    | A3       | A1-A3    | A4       | A5       | C1       | C2       | C3       | C4       | D         |
|-----------------------|------------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|-----------|
| GWP – total           | kg CO <sub>2</sub> e   | 1.31E+01 | 3.36E+01 | 4.67E+01 | 2.42E+00 | 3.85E+00 | 0.00E+00 | 9.65E-01 | 4.89E+01 | 6.04E-02 | -2.56E+01 |
| ADP-minerals & metals | kg Sbe                 | 2.61E-03 | 3.98E-05 | 2.65E-03 | 4.12E-05 | 1.91E-06 | 0.00E+00 | 2.61E-05 | 8.23E-06 | 8.02E-07 | -1.66E-05 |
| ADP-fossil            | MJ                     | 6.64E+02 | 2.11E+02 | 8.75E+02 | 3.68E+01 | 9.09E-01 | 0.00E+00 | 1.45E+01 | 4.47E+00 | 1.37E+00 | -4.10E+02 |
| Water use             | m <sup>3</sup> e depr. | 2.68E+01 | 1.97E+00 | 2.87E+01 | 1.57E-01 | 1.15E-01 | 0.00E+00 | 5.56E-02 | 3.14E-01 | 5.33E-02 | -1.21E+00 |
| Secondary materials   | kg                     | 1.36E-01 | 3.50E-03 | 1.39E-01 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 2.71E+00  |
| Biog. C in product    | kg C                   | N/A      | 5.35E+00 | N/A      | N/A      | N/A      | N/A      | N/A      | N/A      | N/A      | N/A       |
| Biog. C in packaging  | kg C                   | N/A      | 1.25E+00 | N/A      | N/A      | N/A      | N/A      | N/A      | N/A      | N/A      | N/A       |

### Environmental impacts – EN 15804+A1, CML / ISO 21930

| Impact category      | Unit                               | A1-A2    | A3       | A1-A3    | A4       | A5       | C1       | C2       | C3       | C4       | D         |
|----------------------|------------------------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|-----------|
| Global Warming Pot.  | kg CO <sub>2</sub> e               | 4.24E+01 | 1.17E+01 | 5.40E+01 | 2.39E+00 | 1.58E+00 | 0.00E+00 | 9.65E-01 | 7.08E+00 | 5.86E-02 | -2.54E+01 |
| Ozone depletion Pot. | kg CFC <sub>-11</sub> e            | 4.45E-06 | 7.87E-07 | 5.24E-06 | 4.38E-07 | 1.09E-08 | 0.00E+00 | 1.70E-07 | 4.77E-08 | 1.55E-08 | -1.67E-06 |
| Acidification        | kg SO <sub>2</sub> e               | 2.09E-01 | 5.55E-02 | 2.64E-01 | 7.21E-03 | 6.67E-04 | 0.00E+00 | 3.01E-03 | 3.83E-03 | 1.12E-03 | -3.94E-02 |
| Eutrophication       | kg PO <sub>4</sub> <sup>3</sup> e  | 6.62E-02 | 1.62E-02 | 8.24E-02 | 1.62E-03 | 8.79E-04 | 0.00E+00 | 6.81E-04 | 3.95E-03 | 6.17E-05 | -5.75E-03 |
| POCP (“smog”)        | kg C <sub>2</sub> H <sub>4</sub> e | 1.34E-02 | 3.03E-03 | 1.64E-02 | 3.09E-04 | 1.85E-05 | 0.00E+00 | 1.31E-04 | 8.51E-05 | 1.45E-05 | -3.56E-03 |
| ADP-elements         | kg Sbe                             | 2.61E-03 | 3.98E-05 | 2.65E-03 | 4.12E-05 | 1.91E-06 | 0.00E+00 | 2.61E-05 | 8.23E-06 | 8.02E-07 | -1.66E-05 |
| ADP-fossil           | MJ                                 | 6.64E+02 | 2.11E+02 | 8.75E+02 | 3.68E+01 | 9.09E-01 | 0.00E+00 | 1.45E+01 | 4.47E+00 | 1.37E+00 | -4.10E+02 |

# FLUSH MASSIVE INTERNAL DOORS

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

| Impact category         | Unit                   | A1-A2     | A3       | A1-A3     | A4       | A5       | C1       | C2       | C3        | C4       | D         |
|-------------------------|------------------------|-----------|----------|-----------|----------|----------|----------|----------|-----------|----------|-----------|
| GWP – total             | kg CO <sub>2</sub> e   | 4.01E+00  | 2.71E+01 | 3.12E+01  | 2.67E+00 | 3.85E+00 | 0.00E+00 | 1.08E+00 | 7.42E+01  | 1.39E-02 | -3.03E+01 |
| GWP – fossil            | kg CO <sub>2</sub> e   | 4.29E+01  | 1.26E+01 | 5.54E+01  | 2.67E+00 | 1.58E+00 | 0.00E+00 | 1.08E+00 | 1.51E+00  | 1.39E-02 | -3.56E+01 |
| GWP – biogenic          | kg CO <sub>2</sub> e   | -3.92E+01 | 8.16E+00 | -3.11E+01 | 1.48E-03 | 2.27E+00 | 0.00E+00 | 4.24E-04 | 6.73E+01  | 1.08E-04 | 5.39E-03  |
| GWP – LULUC             | kg CO <sub>2</sub> e   | 3.51E-01  | 6.45E+00 | 6.80E+00  | 8.23E-04 | 3.33E-05 | 0.00E+00 | 4.05E-04 | 5.25E+00  | 6.46E-06 | 5.24E+00  |
| Ozone depletion pot.    | kg CFC <sub>11</sub> e | 4.97E-06  | 8.52E-07 | 5.82E-06  | 5.96E-07 | 1.09E-08 | 0.00E+00 | 2.41E-07 | 3.54E-08  | 4.18E-09 | -2.86E-06 |
| Acidification potential | mol H <sup>+</sup> e   | 3.22E-01  | 6.99E-02 | 3.92E-01  | 1.13E-02 | 9.70E-04 | 0.00E+00 | 4.56E-03 | 4.58E-03  | 1.14E-04 | -6.27E-02 |
| EP-freshwater           | kg Pe                  | 3.24E-03  | 4.63E-04 | 3.70E-03  | 2.52E-05 | 1.91E-06 | 0.00E+00 | 1.08E-05 | 5.99E-06  | 2.28E-07 | -7.91E-05 |
| EP-marine               | kg Ne                  | 5.35E-02  | 1.11E-02 | 6.46E-02  | 3.40E-03 | 4.24E-04 | 0.00E+00 | 1.33E-03 | 2.09E-03  | 3.80E-05 | -1.33E-02 |
| EP-terrestrial          | mol Ne                 | 7.60E-01  | 1.27E-01 | 8.87E-01  | 3.69E-02 | 4.24E-03 | 0.00E+00 | 1.46E-02 | 2.20E-02  | 4.31E-04 | -1.44E-01 |
| POCP (“smog”)           | kg NMVOCe              | 2.14E-01  | 3.65E-02 | 2.51E-01  | 1.19E-02 | 1.06E-03 | 0.00E+00 | 4.50E-03 | 5.33E-03  | 1.23E-04 | -5.09E-02 |
| ADP-minerals & metals   | kg Sbe                 | 2.80E-03  | 4.56E-05 | 2.85E-03  | 4.54E-05 | 1.91E-06 | 0.00E+00 | 2.91E-05 | 6.19E-06  | 1.39E-07 | -1.87E-05 |
| ADP-fossil resources    | MJ                     | 6.65E+02  | 2.29E+02 | 8.94E+02  | 4.06E+01 | 9.09E-01 | 0.00E+00 | 1.62E+01 | 3.63E+00  | 3.17E-01 | -5.39E+02 |
| Water use               | m <sup>3</sup> e depr. | 3.86E+01  | 2.97E+00 | 4.16E+01  | 1.73E-01 | 1.15E-01 | 0.00E+00 | 6.21E-02 | -1.64E-01 | 1.39E-02 | -1.53E+00 |

GWP = Global Warming Potential; EP = Eutrophication potential; POCP = Photochemical ozone formation; ADP = Abiotic depletion potential.

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.

## USE OF NATURAL RESOURCES

| Impact category          | Unit           | A1-A2    | A3        | A1-A3    | A4       | A5        | C1       | C2       | C3        | C4        | D         |
|--------------------------|----------------|----------|-----------|----------|----------|-----------|----------|----------|-----------|-----------|-----------|
| Renew. PER as energy     | MJ             | 4.90E+02 | 1.46E+01  | 5.05E+02 | 4.25E-01 | 2.97E-02  | 0.00E+00 | 1.84E-01 | 9.15E-02  | 5.19E-03  | -3.00E-01 |
| Renew. PER as material   | MJ             | 5.42E+02 | -5.40E+01 | 4.88E+02 | 0.00E+00 | -2.35E+01 | 0.00E+00 | 0.00E+00 | -4.30E+02 | -2.26E+01 | -4.30E+02 |
| Total use of renew. PER  | MJ             | 1.03E+03 | -3.94E+01 | 9.93E+02 | 4.25E-01 | -2.35E+01 | 0.00E+00 | 1.84E-01 | -4.30E+02 | -2.26E+01 | -4.30E+02 |
| Non-re. PER as energy    | MJ             | 6.55E+02 | 2.19E+02  | 8.74E+02 | 4.06E+01 | 9.09E-01  | 0.00E+00 | 1.62E+01 | 3.63E+00  | 3.17E-01  | -3.10E+02 |
| Non-re. PER as material  | MJ             | 1.02E+01 | 1.00E+01  | 2.03E+01 | 0.00E+00 | -1.00E+01 | 0.00E+00 | 0.00E+00 | -9.73E+00 | -5.12E-01 | -9.73E+00 |
| Total use of non-re. PER | MJ             | 6.65E+02 | 2.29E+02  | 8.94E+02 | 4.06E+01 | -9.13E+00 | 0.00E+00 | 1.62E+01 | -6.10E+00 | -1.95E-01 | -9.73E+00 |
| Secondary materials      | kg             | 1.12E-01 | 5.85E-03  | 1.18E-01 | 0.00E+00 | 0.00E+00  | 0.00E+00 | 0.00E+00 | 0.00E+00  | 0.00E+00  | 3.64E-01  |
| Renew. secondary fuels   | MJ             | 0.00E+00 | 0.00E+00  | 0.00E+00 | 0.00E+00 | 0.00E+00  | 0.00E+00 | 0.00E+00 | 0.00E+00  | 0.00E+00  | 1.44E+02  |
| Non-ren. secondary fuels | MJ             | 0.00E+00 | 0.00E+00  | 0.00E+00 | 0.00E+00 | 0.00E+00  | 0.00E+00 | 0.00E+00 | 0.00E+00  | 0.00E+00  | 0.00E+00  |
| Use of net fresh water   | m <sup>3</sup> | 2.65E-01 | 5.83E-02  | 3.23E-01 | 8.51E-03 | 4.85E-03  | 0.00E+00 | 2.79E-03 | 9.50E-03  | 3.55E-04  | -8.07E-02 |

PER = Primary energy resources

## END OF LIFE – WASTE

| Impact category     | Unit | A1-A2    | A3       | A1-A3    | A4       | A5       | C1       | C2       | C3       | C4       | D         |
|---------------------|------|----------|----------|----------|----------|----------|----------|----------|----------|----------|-----------|
| Hazardous waste     | kg   | 2.62E+00 | 1.12E+00 | 3.74E+00 | 4.82E-02 | 1.09E-01 | 0.00E+00 | 2.09E-02 | 2.44E-01 | 5.45E-04 | -2.93E-01 |
| Non-hazardous waste | kg   | 6.94E+01 | 1.88E+01 | 8.82E+01 | 4.54E+00 | 2.91E+00 | 0.00E+00 | 1.20E+00 | 2.46E+01 | 1.27E+00 | -3.13E+00 |
| Radioactive waste   | kg   | 1.79E-03 | 8.34E-04 | 2.62E-03 | 2.72E-04 | 3.00E-06 | 0.00E+00 | 1.08E-04 | 8.86E-06 | 1.90E-06 | -4.50E-05 |

## END OF LIFE – OUTPUT FLOWS

| Impact category          | Unit | A1-A2    | A3       | A1-A3    | A4       | A5       | 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 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| Materials for recycling  | kg   | 0.00E+00 | 8.32E-02 | 8.32E-02 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 3.84E-01 | 0.00E+00 | 0.00E+00 |
| Materials for energy rec | kg   | 0.00E+00 | 8.18E-01 | 8.18E-01 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 2.50E+01 | 0.00E+00 | 0.00E+00 |
| Exported energy          | MJ   | 0.00E+00 | 8.26E+00 | 8.26E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 2.51E+02 | 0.00E+00 | 0.00E+00 |

## Key information table (RTS) – key information per kg of product

| Impact category       | Unit                   | A1-A2    | A3       | A1-A3    | A4       | A5       | C1       | C2       | C3        | C4       | D         |
|-----------------------|------------------------|----------|----------|----------|----------|----------|----------|----------|-----------|----------|-----------|
| GWP – total           | kg CO <sub>2</sub> e   | 4.01E+00 | 2.71E+01 | 3.12E+01 | 2.67E+00 | 3.85E+00 | 0.00E+00 | 1.08E+00 | 7.42E+01  | 1.39E-02 | -3.03E+01 |
| ADP-minerals & metals | kg Sbe                 | 2.80E-03 | 4.56E-05 | 2.85E-03 | 4.54E-05 | 1.91E-06 | 0.00E+00 | 2.91E-05 | 6.19E-06  | 1.39E-07 | -1.87E-05 |
| ADP-fossil            | MJ                     | 6.65E+02 | 2.29E+02 | 8.94E+02 | 4.06E+01 | 9.09E-01 | 0.00E+00 | 1.62E+01 | 3.63E+00  | 3.17E-01 | -5.39E+02 |
| Water use             | m <sup>3</sup> e depr. | 3.86E+01 | 2.97E+00 | 4.16E+01 | 1.73E-01 | 1.15E-01 | 0.00E+00 | 6.21E-02 | -1.64E-01 | 1.39E-02 | -1.53E+00 |
| Secondary materials   | kg                     | 1.12E-01 | 5.85E-03 | 1.18E-01 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00  | 0.00E+00 | 3.84E-01  |
| Biog. C in product    | kg C                   | N/A      | 1.03E+01 | N/A      | N/A      | N/A      | N/A      | N/A      | N/A       | N/A      | N/A       |
| Biog. C in packaging  | kg C                   | N/A      | 1.25E+00 | N/A      | N/A      | N/A      | N/A      | N/A      | N/A       | N/A      | N/A       |

## Environmental impacts – EN 15804+A1, CML / ISO 21930

| Impact category      | Unit                               | A1-A2    | A3       | A1-A3    | A4       | A5       | C1       | C2       | C3       | C4       | D         |
|----------------------|------------------------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|-----------|
| Global Warming Pot.  | kg CO <sub>2</sub> e               | 4.21E+01 | 1.22E+01 | 5.43E+01 | 2.64E+00 | 1.58E+00 | 0.00E+00 | 1.08E+00 | 1.51E+00 | 1.27E-02 | -3.34E+01 |
| Ozone depletion Pot. | kg CFC <sub>-11</sub> e            | 4.14E-06 | 8.55E-07 | 5.00E-06 | 4.82E-07 | 1.09E-08 | 0.00E+00 | 1.90E-07 | 3.08E-08 | 3.29E-09 | -2.19E-06 |
| Acidification        | kg SO <sub>2</sub> e               | 2.51E-01 | 5.74E-02 | 3.08E-01 | 7.94E-03 | 6.67E-04 | 0.00E+00 | 3.36E-03 | 3.22E-03 | 9.12E-04 | -5.14E-02 |
| Eutrophication       | kg PO <sub>4</sub> <sup>3</sup> e  | 8.04E-02 | 1.64E-02 | 9.68E-02 | 1.79E-03 | 8.79E-04 | 0.00E+00 | 7.60E-04 | 3.60E-03 | 1.90E-05 | -7.12E-03 |
| POCP (“smog”)        | kg C <sub>2</sub> H <sub>4</sub> e | 1.73E-02 | 3.53E-03 | 2.08E-02 | 3.40E-04 | 1.85E-05 | 0.00E+00 | 1.46E-04 | 6.83E-05 | 3.42E-06 | -4.59E-03 |
| ADP-elements         | kg Sbe                             | 2.80E-03 | 4.56E-05 | 2.85E-03 | 4.54E-05 | 1.91E-06 | 0.00E+00 | 2.91E-05 | 6.19E-06 | 1.39E-07 | -1.87E-05 |
| ADP-fossil           | MJ                                 | 6.65E+02 | 2.29E+02 | 8.94E+02 | 4.06E+01 | 9.09E-01 | 0.00E+00 | 1.62E+01 | 3.63E+00 | 3.17E-01 | -5.39E+02 |

# FLUSH MASSIVE INTERNAL DOORS WITH GLASS

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

| Impact category         | Unit                   | A1-A2     | A3       | A1-A3     | A4       | A5       | C1       | C2       | C3       | C4       | D         |
|-------------------------|------------------------|-----------|----------|-----------|----------|----------|----------|----------|----------|----------|-----------|
| GWP – total             | kg CO <sub>2</sub> e   | 1.37E+01  | 4.12E+01 | 5.49E+01  | 3.35E+00 | 3.85E+00 | 0.00E+00 | 1.39E+00 | 7.93E+01 | 6.51E-02 | -3.45E+01 |
| GWP – fossil            | kg CO <sub>2</sub> e   | 5.65E+01  | 1.20E+01 | 6.85E+01  | 3.35E+00 | 1.58E+00 | 0.00E+00 | 1.39E+00 | 6.31E+00 | 6.51E-02 | -4.12E+01 |
| GWP – biogenic          | kg CO <sub>2</sub> e   | -4.31E+01 | 2.11E+01 | -2.20E+01 | 1.85E-03 | 2.27E+00 | 0.00E+00 | 5.46E-04 | 6.62E+01 | 2.22E-04 | 4.12E-03  |
| GWP – LULUC             | kg CO <sub>2</sub> e   | 3.61E-01  | 8.12E+00 | 8.48E+00  | 1.03E-03 | 3.33E-05 | 0.00E+00 | 5.22E-04 | 6.67E+00 | 2.75E-05 | 6.67E+00  |
| Ozone depletion pot.    | kg CFC <sub>11</sub> e | 7.03E-06  | 7.72E-07 | 7.80E-06  | 7.48E-07 | 1.09E-08 | 0.00E+00 | 3.10E-07 | 6.03E-08 | 2.11E-08 | -3.32E-06 |
| Acidification potential | mol H <sup>+</sup> e   | 4.33E-01  | 6.77E-02 | 5.01E-01  | 1.43E-02 | 9.70E-04 | 0.00E+00 | 5.87E-03 | 6.63E-03 | 5.40E-04 | -7.28E-02 |
| EP-freshwater           | kg Pe                  | 3.62E-03  | 4.43E-04 | 4.06E-03  | 3.17E-05 | 1.91E-06 | 0.00E+00 | 1.39E-05 | 1.02E-05 | 9.17E-07 | -9.40E-05 |
| EP-marine               | kg Ne                  | 7.30E-02  | 1.10E-02 | 8.39E-02  | 4.28E-03 | 4.24E-04 | 0.00E+00 | 1.71E-03 | 2.98E-03 | 1.84E-04 | -1.54E-02 |
| EP-terrestrial          | mol Ne                 | 9.96E-01  | 1.25E-01 | 1.12E+00  | 4.63E-02 | 4.24E-03 | 0.00E+00 | 1.87E-02 | 3.09E-02 | 2.07E-03 | -1.67E-01 |
| POCP (“smog”)           | kg NMVOCe              | 2.74E-01  | 3.49E-02 | 3.09E-01  | 1.50E-02 | 1.06E-03 | 0.00E+00 | 5.79E-03 | 7.57E-03 | 5.96E-04 | -5.87E-02 |
| ADP-minerals & metals   | kg Sbe                 | 3.15E-03  | 3.95E-05 | 3.19E-03  | 5.70E-05 | 1.91E-06 | 0.00E+00 | 3.75E-05 | 1.02E-05 | 8.46E-07 | -2.39E-05 |
| ADP-fossil resources    | MJ                     | 8.86E+02  | 2.11E+02 | 1.10E+03  | 5.10E+01 | 9.09E-01 | 0.00E+00 | 2.09E+01 | 5.67E+00 | 1.48E+00 | -6.26E+02 |
| Water use               | m <sup>3</sup> e depr. | 4.41E+01  | 1.94E+00 | 4.61E+01  | 2.17E-01 | 1.15E-01 | 0.00E+00 | 7.99E-02 | 1.62E-01 | 5.81E-02 | -1.80E+00 |

GWP = Global Warming Potential; EP = Eutrophication potential; POCP = Photochemical ozone formation; ADP = Abiotic depletion potential.

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.

## USE OF NATURAL RESOURCES

| Impact category          | Unit           | A1-A2    | A3        | A1-A3    | A4       | A5        | C1       | C2       | C3        | C4        | D         |
|--------------------------|----------------|----------|-----------|----------|----------|-----------|----------|----------|-----------|-----------|-----------|
| Renew. PER as energy     | MJ             | 5.39E+02 | 1.38E+01  | 5.53E+02 | 5.34E-01 | 2.97E-02  | 0.00E+00 | 2.36E-01 | 1.71E-01  | 1.87E-02  | -5.27E-01 |
| Renew. PER as material   | MJ             | 6.14E+02 | -1.08E+02 | 5.05E+02 | 0.00E+00 | -2.35E+01 | 0.00E+00 | 0.00E+00 | -4.44E+02 | -2.34E+01 | -4.44E+02 |
| Total use of renew. PER  | MJ             | 1.15E+03 | -9.46E+01 | 1.06E+03 | 5.34E-01 | -2.35E+01 | 0.00E+00 | 2.36E-01 | -4.44E+02 | -2.34E+01 | -4.45E+02 |
| Non-re. PER as energy    | MJ             | 8.33E+02 | 2.01E+02  | 1.03E+03 | 5.10E+01 | 9.09E-01  | 0.00E+00 | 2.09E+01 | 5.67E+00  | 1.48E+00  | -3.10E+02 |
| Non-re. PER as material  | MJ             | 5.30E+01 | 1.00E+01  | 6.30E+01 | 0.00E+00 | -1.00E+01 | 0.00E+00 | 0.00E+00 | -5.03E+01 | -2.65E+00 | -5.03E+01 |
| Total use of non-re. PER | MJ             | 8.86E+02 | 2.11E+02  | 1.10E+03 | 5.10E+01 | -9.13E+00 | 0.00E+00 | 2.09E+01 | -4.47E+01 | -1.17E+00 | -5.03E+01 |
| Secondary materials      | kg             | 1.42E-01 | 3.41E-03  | 1.45E-01 | 0.00E+00 | 0.00E+00  | 0.00E+00 | 0.00E+00 | 0.00E+00  | 0.00E+00  | 3.64E-01  |
| Renew. secondary fuels   | MJ             | 0.00E+00 | 0.00E+00  | 0.00E+00 | 0.00E+00 | 0.00E+00  | 0.00E+00 | 0.00E+00 | 0.00E+00  | 0.00E+00  | 1.44E+02  |
| Non-ren. secondary fuels | MJ             | 0.00E+00 | 0.00E+00  | 0.00E+00 | 0.00E+00 | 0.00E+00  | 0.00E+00 | 0.00E+00 | 0.00E+00  | 0.00E+00  | 0.00E+00  |
| Use of net fresh water   | m <sup>3</sup> | 2.89E+01 | 5.73E-02  | 2.89E+01 | 1.07E-02 | 4.85E-03  | 0.00E+00 | 3.59E-03 | 2.13E-02  | 1.42E-03  | -8.07E-02 |

PER = Primary energy resources

## END OF LIFE – WASTE

| Impact category     | Unit | A1-A2    | A3       | A1-A3    | A4       | A5       | C1       | C2       | C3       | C4       | D         |
|---------------------|------|----------|----------|----------|----------|----------|----------|----------|----------|----------|-----------|
| Hazardous waste     | kg   | 2.92E+00 | 1.13E+00 | 4.05E+00 | 6.06E-02 | 1.09E-01 | 0.00E+00 | 2.69E-02 | 4.58E-01 | 1.96E-03 | -3.34E-01 |
| Non-hazardous waste | kg   | 8.10E+01 | 2.19E+01 | 1.03E+02 | 5.70E+00 | 2.91E+00 | 0.00E+00 | 1.55E+00 | 2.98E+01 | 7.20E+00 | -3.77E+00 |
| Radioactive waste   | kg   | 2.36E-03 | 7.92E-04 | 3.15E-03 | 3.42E-04 | 3.00E-06 | 0.00E+00 | 1.39E-04 | 1.62E-05 | 9.72E-06 | -5.93E-05 |

## END OF LIFE – OUTPUT FLOWS

| Impact category          | Unit | A1-A2    | A3       | A1-A3    | A4       | A5       | 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 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| Materials for recycling  | kg   | 0.00E+00 | 8.32E-02 | 8.32E-02 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 2.71E+00 | 0.00E+00 | 0.00E+00 |
| Materials for energy rec | kg   | 0.00E+00 | 4.77E+00 | 4.77E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 2.99E+01 | 0.00E+00 | 0.00E+00 |
| Exported energy          | MJ   | 0.00E+00 | 4.86E+01 | 4.86E+01 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 2.91E+02 | 0.00E+00 | 0.00E+00 |

## Key information table (RTS) – key information per kg of product

| Impact category       | Unit                   | A1-A2    | A3       | A1-A3    | A4       | A5       | C1       | C2       | C3       | C4       | D         |
|-----------------------|------------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|-----------|
| GWP – total           | kg CO <sub>2</sub> e   | 1.37E+01 | 4.12E+01 | 5.49E+01 | 3.35E+00 | 3.85E+00 | 0.00E+00 | 1.39E+00 | 7.93E+01 | 6.51E-02 | -3.45E+01 |
| ADP-minerals & metals | kg Sbe                 | 3.15E-03 | 3.95E-05 | 3.19E-03 | 5.70E-05 | 1.91E-06 | 0.00E+00 | 3.75E-05 | 1.02E-05 | 8.46E-07 | -2.39E-05 |
| ADP-fossil            | MJ                     | 8.86E+02 | 2.11E+02 | 1.10E+03 | 5.10E+01 | 9.09E-01 | 0.00E+00 | 2.09E+01 | 5.67E+00 | 1.48E+00 | -6.26E+02 |
| Water use             | m <sup>3</sup> e depr. | 4.41E+01 | 1.94E+00 | 4.61E+01 | 2.17E-01 | 1.15E-01 | 0.00E+00 | 7.99E-02 | 1.62E-01 | 5.81E-02 | -1.80E+00 |
| Secondary materials   | kg                     | 1.42E-01 | 3.41E-03 | 1.45E-01 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 2.71E+00  |
| Biog. C in product    | kg C                   | N/A      | 9.78E+00 | N/A      | N/A      | N/A      | N/A      | N/A      | N/A      | N/A      | N/A       |
| Biog. C in packaging  | kg C                   | N/A      | 1.25E+00 | N/A      | N/A      | N/A      | N/A      | N/A      | N/A      | N/A      | N/A       |

## Environmental impacts – EN 15804+A1, CML / ISO 21930

| Impact category      | Unit                               | A1-A2    | A3       | A1-A3    | A4       | A5       | C1       | C2       | C3       | C4       | D         |
|----------------------|------------------------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|-----------|
| Global Warming Pot.  | kg CO <sub>2</sub> e               | 5.55E+01 | 1.17E+01 | 6.72E+01 | 3.31E+00 | 1.58E+00 | 0.00E+00 | 1.39E+00 | 6.31E+00 | 6.28E-02 | -3.87E+01 |
| Ozone depletion Pot. | kg CFC <sub>-11</sub> e            | 5.93E-06 | 7.85E-07 | 6.71E-06 | 6.06E-07 | 1.09E-08 | 0.00E+00 | 2.45E-07 | 5.61E-08 | 1.66E-08 | -2.55E-06 |
| Acidification        | kg SO <sub>2</sub> e               | 2.88E-01 | 5.54E-02 | 3.43E-01 | 9.98E-03 | 6.67E-04 | 0.00E+00 | 4.32E-03 | 4.91E-03 | 1.47E-03 | -5.96E-02 |
| Eutrophication       | kg PO <sub>4</sub> <sup>3</sup> e  | 9.23E-02 | 1.62E-02 | 1.08E-01 | 2.24E-03 | 8.79E-04 | 0.00E+00 | 9.78E-04 | 5.23E-03 | 6.85E-05 | -8.30E-03 |
| POCP (“smog”)        | kg C <sub>2</sub> H <sub>4</sub> e | 1.95E-02 | 3.01E-03 | 2.25E-02 | 4.28E-04 | 1.85E-05 | 0.00E+00 | 1.87E-04 | 1.07E-04 | 1.56E-05 | -5.27E-03 |
| ADP-elements         | kg Sbe                             | 3.15E-03 | 3.95E-05 | 3.19E-03 | 5.70E-05 | 1.91E-06 | 0.00E+00 | 3.75E-05 | 1.02E-05 | 8.46E-07 | -2.39E-05 |
| ADP-fossil           | MJ                                 | 8.86E+02 | 2.11E+02 | 1.10E+03 | 5.10E+01 | 9.09E-01 | 0.00E+00 | 2.09E+01 | 5.67E+00 | 1.48E+00 | -6.26E+02 |

# MOULDED MASSIVE INTERNAL DOORS

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

| Impact category         | Unit                   | A1-A2     | A3       | A1-A3     | A4       | A5       | C1       | C2       | C3        | C4       | D         |
|-------------------------|------------------------|-----------|----------|-----------|----------|----------|----------|----------|-----------|----------|-----------|
| GWP – total             | kg CO <sub>2</sub> e   | 5.98E+00  | 3.42E+01 | 4.02E+01  | 3.70E+00 | 3.85E+00 | 0.00E+00 | 1.54E+00 | 1.07E+02  | 2.00E-02 | -4.09E+01 |
| GWP – fossil            | kg CO <sub>2</sub> e   | 5.83E+01  | 1.23E+01 | 7.06E+01  | 3.70E+00 | 1.58E+00 | 0.00E+00 | 1.54E+00 | 2.04E+00  | 2.00E-02 | -5.11E+01 |
| GWP – biogenic          | kg CO <sub>2</sub> e   | -5.28E+01 | 9.69E+00 | -4.31E+01 | 2.05E-03 | 2.27E+00 | 0.00E+00 | 6.09E-04 | 9.46E+01  | 1.54E-04 | 6.05E-03  |
| GWP – LULUC             | kg CO <sub>2</sub> e   | 4.39E-01  | 1.22E+01 | 1.27E+01  | 1.14E-03 | 3.33E-05 | 0.00E+00 | 5.82E-04 | 1.02E+01  | 9.27E-06 | 1.02E+01  |
| Ozone depletion pot.    | kg CFC <sub>11</sub> e | 7.23E-06  | 8.18E-07 | 8.04E-06  | 8.27E-07 | 1.09E-08 | 0.00E+00 | 3.45E-07 | 5.03E-08  | 6.00E-09 | -4.12E-06 |
| Acidification potential | mol H <sup>+</sup> e   | 4.48E-01  | 6.87E-02 | 5.17E-01  | 1.58E-02 | 9.70E-04 | 0.00E+00 | 6.54E-03 | 6.56E-03  | 1.64E-04 | -8.96E-02 |
| EP-freshwater           | kg Pe                  | 3.97E-03  | 4.54E-04 | 4.42E-03  | 3.50E-05 | 1.91E-06 | 0.00E+00 | 1.54E-05 | 8.51E-06  | 3.27E-07 | -1.04E-04 |
| EP-marine               | kg Ne                  | 7.34E-02  | 1.09E-02 | 8.43E-02  | 4.73E-03 | 4.24E-04 | 0.00E+00 | 1.91E-03 | 2.99E-03  | 5.45E-05 | -1.90E-02 |
| EP-terrestrial          | mol Ne                 | 1.06E+00  | 1.25E-01 | 1.19E+00  | 5.12E-02 | 4.24E-03 | 0.00E+00 | 2.09E-02 | 3.15E-02  | 6.18E-04 | -2.05E-01 |
| POCP (“smog”)           | kg NMVOCe              | 2.99E-01  | 3.55E-02 | 3.34E-01  | 1.65E-02 | 1.06E-03 | 0.00E+00 | 6.45E-03 | 7.64E-03  | 1.76E-04 | -7.21E-02 |
| ADP-minerals & metals   | kg Sbe                 | 3.16E-03  | 4.28E-05 | 3.20E-03  | 6.30E-05 | 1.91E-06 | 0.00E+00 | 4.18E-05 | 8.80E-06  | 2.00E-07 | -2.68E-05 |
| ADP-fossil resources    | MJ                     | 9.34E+02  | 2.21E+02 | 1.15E+03  | 5.63E+01 | 9.09E-01 | 0.00E+00 | 2.33E+01 | 5.19E+00  | 4.54E-01 | -7.77E+02 |
| Water use               | m <sup>3</sup> e depr. | 5.57E+01  | 2.58E+00 | 5.83E+01  | 2.40E-01 | 1.15E-01 | 0.00E+00 | 8.91E-02 | -2.50E-01 | 2.00E-02 | -2.17E+00 |

GWP = Global Warming Potential; EP = Eutrophication potential; POCP = Photochemical ozone formation; ADP = Abiotic depletion potential.

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.

## USE OF NATURAL RESOURCES

| Impact category          | Unit           | A1-A2    | A3        | A1-A3    | A4       | A5        | C1       | C2       | C3        | C4        | D         |
|--------------------------|----------------|----------|-----------|----------|----------|-----------|----------|----------|-----------|-----------|-----------|
| Renew. PER as energy     | MJ             | 7.42E+02 | 1.42E+01  | 7.56E+02 | 5.91E-01 | 2.97E-02  | 0.00E+00 | 2.64E-01 | 1.30E-01  | 7.45E-03  | -4.50E-01 |
| Renew. PER as material   | MJ             | 8.66E+02 | -8.86E+01 | 7.77E+02 | 0.00E+00 | -2.35E+01 | 0.00E+00 | 0.00E+00 | -6.94E+02 | -3.65E+01 | -6.94E+02 |
| Total use of renew. PER  | MJ             | 1.61E+03 | -7.43E+01 | 1.53E+03 | 5.91E-01 | -2.35E+01 | 0.00E+00 | 2.64E-01 | -6.94E+02 | -3.65E+01 | -6.95E+02 |
| Non-re. PER as energy    | MJ             | 9.23E+02 | 2.11E+02  | 1.13E+03 | 5.63E+01 | 9.09E-01  | 0.00E+00 | 2.33E+01 | 5.19E+00  | 4.54E-01  | -3.10E+02 |
| Non-re. PER as material  | MJ             | 1.02E+01 | 1.00E+01  | 2.03E+01 | 0.00E+00 | -1.00E+01 | 0.00E+00 | 0.00E+00 | -9.71E+00 | -5.11E-01 | -9.71E+00 |
| Total use of non-re. PER | MJ             | 9.34E+02 | 2.21E+02  | 1.15E+03 | 5.63E+01 | -9.13E+00 | 0.00E+00 | 2.33E+01 | -4.52E+00 | -5.68E-02 | -9.71E+00 |
| Secondary materials      | kg             | 1.36E-01 | 4.88E-03  | 1.40E-01 | 0.00E+00 | 0.00E+00  | 0.00E+00 | 0.00E+00 | 0.00E+00  | 0.00E+00  | 3.64E-01  |
| Renew. secondary fuels   | MJ             | 0.00E+00 | 0.00E+00  | 0.00E+00 | 0.00E+00 | 0.00E+00  | 0.00E+00 | 0.00E+00 | 0.00E+00  | 0.00E+00  | 1.44E+02  |
| Non-ren. secondary fuels | MJ             | 0.00E+00 | 0.00E+00  | 0.00E+00 | 0.00E+00 | 0.00E+00  | 0.00E+00 | 0.00E+00 | 0.00E+00  | 0.00E+00  | 0.00E+00  |
| Use of net fresh water   | m <sup>3</sup> | 3.37E-01 | 5.74E-02  | 3.94E-01 | 1.18E-02 | 4.85E-03  | 0.00E+00 | 4.00E-03 | 1.33E-02  | 5.09E-04  | -8.07E-02 |

PER = Primary energy resources

## END OF LIFE – WASTE

| Impact category     | Unit | A1-A2    | A3       | A1-A3    | A4       | A5       | C1       | C2       | C3       | C4       | D         |
|---------------------|------|----------|----------|----------|----------|----------|----------|----------|----------|----------|-----------|
| Hazardous waste     | kg   | 3.38E+00 | 1.11E+00 | 4.49E+00 | 6.69E-02 | 1.09E-01 | 0.00E+00 | 3.00E-02 | 3.44E-01 | 7.82E-04 | -3.94E-01 |
| Non-hazardous waste | kg   | 9.10E+01 | 1.83E+01 | 1.09E+02 | 6.30E+00 | 2.91E+00 | 0.00E+00 | 1.73E+00 | 3.55E+01 | 1.82E+00 | -4.18E+00 |
| Radioactive waste   | kg   | 2.59E-03 | 8.17E-04 | 3.40E-03 | 3.78E-04 | 3.00E-06 | 0.00E+00 | 1.54E-04 | 1.26E-05 | 2.73E-06 | -6.59E-05 |

## END OF LIFE – OUTPUT FLOWS

| Impact category          | Unit | A1-A2    | A3       | A1-A3    | A4       | A5       | 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 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| Materials for recycling  | kg   | 0.00E+00 | 8.32E-02 | 8.32E-02 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 3.87E-01 | 0.00E+00 | 0.00E+00 |
| Materials for energy rec | kg   | 0.00E+00 | 6.31E-01 | 6.31E-01 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 3.60E+01 | 0.00E+00 | 0.00E+00 |
| Exported energy          | MJ   | 0.00E+00 | 6.35E+00 | 6.35E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 3.62E+02 | 0.00E+00 | 0.00E+00 |

## Key information table (RTS) – key information per kg of product

| Impact category       | Unit                   | A1-A2    | A3       | A1-A3    | A4       | A5       | C1       | C2       | C3        | C4       | D         |
|-----------------------|------------------------|----------|----------|----------|----------|----------|----------|----------|-----------|----------|-----------|
| GWP – total           | kg CO <sub>2</sub> e   | 5.98E+00 | 3.42E+01 | 4.02E+01 | 3.70E+00 | 3.85E+00 | 0.00E+00 | 1.54E+00 | 1.07E+02  | 2.00E-02 | -4.09E+01 |
| ADP-minerals & metals | kg Sbe                 | 3.16E-03 | 4.28E-05 | 3.20E-03 | 6.30E-05 | 1.91E-06 | 0.00E+00 | 4.18E-05 | 8.80E-06  | 2.00E-07 | -2.68E-05 |
| ADP-fossil            | MJ                     | 9.34E+02 | 2.21E+02 | 1.15E+03 | 5.63E+01 | 9.09E-01 | 0.00E+00 | 2.33E+01 | 5.19E+00  | 4.54E-01 | -7.77E+02 |
| Water use             | m <sup>3</sup> e depr. | 5.57E+01 | 2.58E+00 | 5.83E+01 | 2.40E-01 | 1.15E-01 | 0.00E+00 | 8.91E-02 | -2.50E-01 | 2.00E-02 | -2.17E+00 |
| Secondary materials   | kg                     | 1.36E-01 | 4.88E-03 | 1.40E-01 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00  | 0.00E+00 | 3.87E-01  |
| Biog. C in product    | kg C                   | N/A      | 1.48E+01 | N/A      | N/A      | N/A      | N/A      | N/A      | N/A       | N/A      | N/A       |
| Biog. C in packaging  | kg C                   | N/A      | 1.25E+00 | N/A      | N/A      | N/A      | N/A      | N/A      | N/A       | N/A      | N/A       |

## Environmental impacts – EN 15804+A1, CML / ISO 21930

| Impact category      | Unit                               | A1-A2    | A3       | A1-A3    | A4       | A5       | C1       | C2       | C3       | C4       | D         |
|----------------------|------------------------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|-----------|
| Global Warming Pot.  | kg CO <sub>2</sub> e               | 5.73E+01 | 1.19E+01 | 6.92E+01 | 3.66E+00 | 1.58E+00 | 0.00E+00 | 1.54E+00 | 2.04E+00 | 1.82E-02 | -4.79E+01 |
| Ozone depletion Pot. | kg CFC <sub>-11</sub> e            | 6.00E-06 | 8.25E-07 | 6.82E-06 | 6.69E-07 | 1.09E-08 | 0.00E+00 | 2.73E-07 | 4.37E-08 | 4.73E-09 | -3.16E-06 |
| Acidification        | kg SO <sub>2</sub> e               | 3.46E-01 | 5.64E-02 | 4.02E-01 | 1.10E-02 | 6.67E-04 | 0.00E+00 | 4.82E-03 | 4.61E-03 | 1.31E-03 | -7.34E-02 |
| Eutrophication       | kg PO <sub>4</sub> <sup>3</sup> e  | 1.10E-01 | 1.61E-02 | 1.26E-01 | 2.48E-03 | 8.79E-04 | 0.00E+00 | 1.09E-03 | 5.15E-03 | 2.73E-05 | -9.86E-03 |
| POCP (“smog”)        | kg C <sub>2</sub> H <sub>4</sub> e | 2.42E-02 | 3.32E-03 | 2.75E-02 | 4.73E-04 | 1.85E-05 | 0.00E+00 | 2.09E-04 | 9.74E-05 | 4.91E-06 | -6.43E-03 |
| ADP-elements         | kg Sbe                             | 3.16E-03 | 4.28E-05 | 3.20E-03 | 6.30E-05 | 1.91E-06 | 0.00E+00 | 4.18E-05 | 8.80E-06 | 2.00E-07 | -2.68E-05 |
| ADP-fossil           | MJ                                 | 9.34E+02 | 2.21E+02 | 1.15E+03 | 5.63E+01 | 9.09E-01 | 0.00E+00 | 2.33E+01 | 5.19E+00 | 4.54E-01 | -7.77E+02 |

# MOULDED MASSIVE INTERNAL DOORS WITH GLASS

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

| Impact category         | Unit                   | A1-A2     | A3       | A1-A3     | A4       | A5       | C1       | C2       | C3       | C4       | D         |
|-------------------------|------------------------|-----------|----------|-----------|----------|----------|----------|----------|----------|----------|-----------|
| GWP – total             | kg CO <sub>2</sub> e   | 1.85E+01  | 4.93E+01 | 6.79E+01  | 4.47E+00 | 3.85E+00 | 0.00E+00 | 1.89E+00 | 1.14E+02 | 7.32E-02 | -4.61E+01 |
| GWP – fossil            | kg CO <sub>2</sub> e   | 7.48E+01  | 1.20E+01 | 8.68E+01  | 4.47E+00 | 1.58E+00 | 0.00E+00 | 1.89E+00 | 9.10E+00 | 7.32E-02 | -5.77E+01 |
| GWP – biogenic          | kg CO <sub>2</sub> e   | -5.67E+01 | 2.34E+01 | -3.33E+01 | 2.47E-03 | 2.27E+00 | 0.00E+00 | 7.46E-04 | 9.30E+01 | 2.76E-04 | 3.82E-03  |
| GWP – LULUC             | kg CO <sub>2</sub> e   | 4.49E-01  | 1.39E+01 | 1.44E+01  | 1.38E-03 | 3.33E-05 | 0.00E+00 | 7.13E-04 | 1.16E+01 | 3.12E-05 | 1.16E+01  |
| Ozone depletion pot.    | kg CFC <sub>11</sub> e | 1.01E-05  | 7.72E-07 | 1.08E-05  | 9.99E-07 | 1.09E-08 | 0.00E+00 | 4.23E-07 | 8.09E-08 | 2.35E-08 | -4.67E-06 |
| Acidification potential | mol H <sup>+</sup> e   | 5.70E-01  | 6.77E-02 | 6.38E-01  | 1.90E-02 | 9.70E-04 | 0.00E+00 | 8.02E-03 | 9.14E-03 | 6.06E-04 | -1.01E-01 |
| EP-freshwater           | kg Pe                  | 4.47E-03  | 4.43E-04 | 4.91E-03  | 4.23E-05 | 1.91E-06 | 0.00E+00 | 1.89E-05 | 1.33E-05 | 1.04E-06 | -1.17E-04 |
| EP-marine               | kg Ne                  | 9.51E-02  | 1.10E-02 | 1.06E-01  | 5.71E-03 | 4.24E-04 | 0.00E+00 | 2.34E-03 | 4.14E-03 | 2.06E-04 | -2.14E-02 |
| EP-terrestrial          | mol Ne                 | 1.32E+00  | 1.25E-01 | 1.45E+00  | 6.18E-02 | 4.24E-03 | 0.00E+00 | 2.56E-02 | 4.30E-02 | 2.32E-03 | -2.32E-01 |
| POCP (“smog”)           | kg NMVOCe              | 3.68E-01  | 3.49E-02 | 4.03E-01  | 2.00E-02 | 1.06E-03 | 0.00E+00 | 7.91E-03 | 1.05E-02 | 6.67E-04 | -8.09E-02 |
| ADP-minerals & metals   | kg Sbe                 | 3.13E-03  | 3.95E-05 | 3.17E-03  | 7.61E-05 | 1.91E-06 | 0.00E+00 | 5.12E-05 | 1.36E-05 | 9.33E-07 | -3.25E-05 |
| ADP-fossil resources    | MJ                     | 1.25E+03  | 2.11E+02 | 1.46E+03  | 6.80E+01 | 9.09E-01 | 0.00E+00 | 2.85E+01 | 7.66E+00 | 1.66E+00 | -8.79E+02 |
| Water use               | m <sup>3</sup> e depr. | 6.30E+01  | 1.94E+00 | 6.50E+01  | 2.90E-01 | 1.15E-01 | 0.00E+00 | 1.09E-01 | 1.94E-01 | 6.59E-02 | -2.47E+00 |

GWP = Global Warming Potential; EP = Eutrophication potential; POCP = Photochemical ozone formation; ADP = Abiotic depletion potential.

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.

## USE OF NATURAL RESOURCES

| Impact category          | Unit           | A1-A2    | A3        | A1-A3    | A4       | A5        | C1       | C2       | C3        | C4        | D         |
|--------------------------|----------------|----------|-----------|----------|----------|-----------|----------|----------|-----------|-----------|-----------|
| Renew. PER as energy     | MJ             | 7.95E+02 | 1.38E+01  | 8.09E+02 | 7.14E-01 | 2.97E-02  | 0.00E+00 | 3.23E-01 | 2.25E-01  | 2.15E-02  | -7.24E-01 |
| Renew. PER as material   | MJ             | 9.39E+02 | -1.46E+02 | 7.93E+02 | 0.00E+00 | -2.35E+01 | 0.00E+00 | 0.00E+00 | -7.07E+02 | -3.72E+01 | -7.07E+02 |
| Total use of renew. PER  | MJ             | 1.73E+03 | -1.32E+02 | 1.60E+03 | 7.14E-01 | -2.35E+01 | 0.00E+00 | 3.23E-01 | -7.07E+02 | -3.72E+01 | -7.08E+02 |
| Non-re. PER as energy    | MJ             | 1.15E+03 | 2.01E+02  | 1.35E+03 | 6.80E+01 | 9.09E-01  | 0.00E+00 | 2.85E+01 | 7.66E+00  | 1.66E+00  | -3.10E+02 |
| Non-re. PER as material  | MJ             | 9.86E+01 | 1.00E+01  | 1.09E+02 | 0.00E+00 | -1.00E+01 | 0.00E+00 | 0.00E+00 | -9.37E+01 | -4.93E+00 | -9.37E+01 |
| Total use of non-re. PER | MJ             | 1.25E+03 | 2.11E+02  | 1.46E+03 | 6.80E+01 | -9.13E+00 | 0.00E+00 | 2.85E+01 | -8.60E+01 | -3.27E+00 | -9.37E+01 |
| Secondary materials      | kg             | 1.62E-01 | 3.41E-03  | 1.65E-01 | 0.00E+00 | 0.00E+00  | 0.00E+00 | 0.00E+00 | 0.00E+00  | 0.00E+00  | 3.64E-01  |
| Renew. secondary fuels   | MJ             | 0.00E+00 | 0.00E+00  | 0.00E+00 | 0.00E+00 | 0.00E+00  | 0.00E+00 | 0.00E+00 | 0.00E+00  | 0.00E+00  | 1.44E+02  |
| Non-ren. secondary fuels | MJ             | 0.00E+00 | 0.00E+00  | 0.00E+00 | 0.00E+00 | 0.00E+00  | 0.00E+00 | 0.00E+00 | 0.00E+00  | 0.00E+00  | 0.00E+00  |
| Use of net fresh water   | m <sup>3</sup> | 5.94E+01 | 5.73E-02  | 5.94E+01 | 1.43E-02 | 4.85E-03  | 0.00E+00 | 4.90E-03 | 2.90E-02  | 1.62E-03  | -8.07E-02 |

PER = Primary energy resources

## END OF LIFE – WASTE

| Impact category     | Unit | A1-A2    | A3       | A1-A3    | A4       | A5       | C1       | C2       | C3       | C4       | D         |
|---------------------|------|----------|----------|----------|----------|----------|----------|----------|----------|----------|-----------|
| Hazardous waste     | kg   | 3.72E+00 | 1.13E+00 | 4.85E+00 | 8.09E-02 | 1.09E-01 | 0.00E+00 | 3.67E-02 | 5.94E-01 | 2.26E-03 | -4.30E-01 |
| Non-hazardous waste | kg   | 1.05E+02 | 2.19E+01 | 1.27E+02 | 7.61E+00 | 2.91E+00 | 0.00E+00 | 2.12E+00 | 4.16E+01 | 7.98E+00 | -4.79E+00 |
| Radioactive waste   | kg   | 3.28E-03 | 7.92E-04 | 4.07E-03 | 4.57E-04 | 3.00E-06 | 0.00E+00 | 1.89E-04 | 2.11E-05 | 1.08E-05 | -8.31E-05 |

## END OF LIFE – OUTPUT FLOWS

| Impact category          | Unit | A1-A2    | A3       | A1-A3    | A4       | A5       | 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 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| Materials for recycling  | kg   | 0.00E+00 | 8.32E-02 | 8.32E-02 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 2.71E+00 | 0.00E+00 | 0.00E+00 |
| Materials for energy rec | kg   | 0.00E+00 | 4.83E+00 | 4.83E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 4.18E+01 | 0.00E+00 | 0.00E+00 |
| Exported energy          | MJ   | 0.00E+00 | 4.92E+01 | 4.92E+01 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 4.10E+02 | 0.00E+00 | 0.00E+00 |

## Key information table (RTS) – key information per kg of product

| Impact category       | Unit                   | A1-A2    | A3       | A1-A3    | A4       | A5       | C1       | C2       | C3       | C4       | D         |
|-----------------------|------------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|-----------|
| GWP – total           | kg CO <sub>2</sub> e   | 1.85E+01 | 4.93E+01 | 6.79E+01 | 4.47E+00 | 3.85E+00 | 0.00E+00 | 1.89E+00 | 1.14E+02 | 7.32E-02 | -4.61E+01 |
| ADP-minerals & metals | kg Sbe                 | 3.13E-03 | 3.95E-05 | 3.17E-03 | 7.61E-05 | 1.91E-06 | 0.00E+00 | 5.12E-05 | 1.36E-05 | 9.33E-07 | -3.25E-05 |
| ADP-fossil            | MJ                     | 1.25E+03 | 2.11E+02 | 1.46E+03 | 6.80E+01 | 9.09E-01 | 0.00E+00 | 2.85E+01 | 7.66E+00 | 1.66E+00 | -8.79E+02 |
| Water use             | m <sup>3</sup> e depr. | 6.30E+01 | 1.94E+00 | 6.50E+01 | 2.90E-01 | 1.15E-01 | 0.00E+00 | 1.09E-01 | 1.94E-01 | 6.59E-02 | -2.47E+00 |
| Secondary materials   | kg                     | 1.62E-01 | 3.41E-03 | 1.65E-01 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 2.71E+00  |
| Biog. C in product    | kg C                   | N/A      | 1.42E+01 | N/A      | N/A      | N/A      | N/A      | N/A      | N/A      | N/A      | N/A       |
| Biog. C in packaging  | kg C                   | N/A      | 1.25E+00 | N/A      | N/A      | N/A      | N/A      | N/A      | N/A      | N/A      | N/A       |

## Environmental impacts – EN 15804+A1, CML / ISO 21930

| Impact category      | Unit                               | A1-A2    | A3       | A1-A3    | A4       | A5       | C1       | C2       | C3       | C4       | D         |
|----------------------|------------------------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|-----------|
| Global Warming Pot.  | kg CO <sub>2</sub> e               | 7.36E+01 | 1.17E+01 | 8.52E+01 | 4.42E+00 | 1.58E+00 | 0.00E+00 | 1.89E+00 | 9.09E+00 | 7.03E-02 | -5.41E+01 |
| Ozone depletion Pot. | kg CFC <sub>11</sub> e             | 8.55E-06 | 7.84E-07 | 9.34E-06 | 8.09E-07 | 1.09E-08 | 0.00E+00 | 3.34E-07 | 7.51E-08 | 1.85E-08 | -3.58E-06 |
| Acidification        | kg SO <sub>2</sub> e               | 3.91E-01 | 5.54E-02 | 4.46E-01 | 1.33E-02 | 6.67E-04 | 0.00E+00 | 5.90E-03 | 6.70E-03 | 1.91E-03 | -8.29E-02 |
| Eutrophication       | kg PO <sub>4</sub> <sup>3</sup> e  | 1.25E-01 | 1.62E-02 | 1.41E-01 | 3.00E-03 | 8.79E-04 | 0.00E+00 | 1.34E-03 | 7.04E-03 | 7.88E-05 | -1.11E-02 |
| POCP (“smog”)        | kg C <sub>2</sub> H <sub>4</sub> e | 2.73E-02 | 3.01E-03 | 3.03E-02 | 5.71E-04 | 1.85E-05 | 0.00E+00 | 2.56E-04 | 1.45E-04 | 1.76E-05 | -7.15E-03 |
| ADP-elements         | kg Sbe                             | 3.13E-03 | 3.95E-05 | 3.17E-03 | 7.61E-05 | 1.91E-06 | 0.00E+00 | 5.12E-05 | 1.36E-05 | 9.33E-07 | -3.25E-05 |
| ADP-fossil           | MJ                                 | 1.25E+03 | 2.11E+02 | 1.46E+03 | 6.80E+01 | 9.09E-01 | 0.00E+00 | 2.85E+01 | 7.66E+00 | 1.66E+00 | -8.79E+02 |

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