SHA२K
SOLUTIONS

This appendix refers to the EPD MD-24013-EN, developed according to EN15804+A2:2019.
Results in the appendix communicates LCA results in the format described in EN15804+A1:2013, in order to accommodate a need in the transition period between the two standard revisions. The appendix cannot stand alone, as the reference EPD describes the basis of the assessment.

| ENVIRONMENTAL IMPACTS PER KG |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Parameter | Unit | A1 | A2 | A3 | A4 | A5 | B1-B7 | C1 | C2 | C3 | C4 | D |
| GWP | [ kg CO 2 -eq.] | 1,15E-01 | 6,19E-03 | 3,14E-01 | MND | MND | MND | MND | MND | MND | MND | MND |
| ODP | $\begin{aligned} & \text { [kg CFC11- } \\ & \text { eq.] } \end{aligned}$ | 5,10E-09 | 1,07E-18 | 6,04E-15 | MND | MND | MND | MND | MND | MND | MND | MND |
| AP | [ $\mathrm{kg} \mathrm{SO}_{2}$-eq.] | 3,19E-04 | 1,40E-05 | 4,43E-04 | MND | MND | MND | MND | MND | MND | MND | MND |
| EP | [ $\mathrm{kg} \mathrm{PO}_{4}{ }^{3-}$-eq.] | 2,48E-04 | 3,39E-06 | 1,11E-04 | MND | MND | MND | MND | MND | MND | MND | MND |
| POCP | [kg etheneeq.] | 8,73E-05 | -5,06E-06 | -5,30E-05 | MND | MND | MND | MND | MND | MND | MND | MND |
| ADPE | [kg Sb-eq.] | 8,35E-07 | 4,81E-10 | 6,54E-08 | MND | MND | MND | MND | MND | MND | MND | MND |
| ADPF | [MJ] | 2,09E+00 | 8,35E-02 | 4,66E+00 | MND | MND | MND | MND | MND | MND | MND | MND |
| Caption | GWP = Global warming potential; ODP = Ozone depletion potential; AP = Acidification potential of soil and water; EP = Eutrophication potential; POCP = Photochemical ozone creation potential; ADPE = Abiotic depletion potential for non fossil resources; ADPF = Abiotic depletion potential for fossil resources |  |  |  |  |  |  |  |  |  |  |  |
|  | The numbers are declared in scientific notation, fx $1,95 \mathrm{E}+02$. This number can also be written as: $1,95^{*} 10^{2}$ or 195 , while $1,12 \mathrm{E}-11$ is the same as $1,12^{*} 10^{-11}$ or 0,0000000000112 . |  |  |  |  |  |  |  |  |  |  |  |


| RESOURCE USE PER KG |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Parameter | Unit | A1 | A2 | A3 | A4 | A5 | B1-B7 | C1 | C2 | C3 | C4 | D |
| PERE | [MJ] | 1,31E+00 | 4,68E-03 | 1,07E+00 | MND | MND | MND | MND | MND | MND | MND | MND |
| PERM | [MJ] | 1,69E-01 | 0,00E+00 | 0,00E+00 | MND | MND | MND | MND | MND | MND | MND | MND |
| PERT | [MJ] | 1,48E+00 | 4,68E-03 | 1,07E+00 | MND | MND | MND | MND | MND | MND | MND | MND |
| PENRE | [MJ] | 2,19E+00 | 8,40E-02 | 6,31E+00 | MND | MND | MND | MND | MND | MND | MND | MND |
| PENRM | [MJ] | 0,00E+00 | 0,00E+00 | 0,00E+00 | MND | MND | MND | MND | MND | MND | MND | MND |
| PENRT | [MJ] | 2,34E+00 | 8,40E-02 | 6,31E+00 | MND | MND | MND | MND | MND | MND | MND | MND |
| SM | [kg] | 5,26E-01 | 0,00E+00 | 0,00E+00 | MND | MND | MND | MND | MND | MND | MND | MND |
| RSF | [MJ] | $\begin{gathered} -1,46 \mathrm{E}- \\ 11 \\ \hline \end{gathered}$ | 0,00E+00 | 0,00E+00 | MND | MND | MND | MND | MND | MND | MND | MND |
| NRSF | [MJ] | $\begin{gathered} \hline-2,14 \mathrm{E}- \\ 10 \\ \hline \end{gathered}$ | 0,00E+00 | 0,00E+00 | MND | MND | MND | MND | MND | MND | MND | MND |
| FW | [ $\mathrm{m}^{3}$ ] | 1,01E-03 | 5,36E-06 | 1,92E-03 | MND | MND | MND | MND | MND | MND | MND | MND |

> PERE $=$ Use of renewable primary energy excluding renewable primary energy resources used as raw materials; PERM = Use of renewable primary energy resources used as raw materials; PERT $=$ Total use of renewable primary energy

Caption materials; PENRM = Use of non renewable primary energy resources used as raw materials; PENRT = Total use of non renewable primary energy resources; $\mathrm{SM}=$ Use of secondary material; RSF = Use of renewable secondary fuels; NRSF =

Use of non renewable secondary fuels; FW = Use of net fresh water
The numbers are declared in scientific notation, fx $1,95 \mathrm{E}+02$. This number can also be written as: $1,95^{*} 10^{2}$ or 195 , while $1,12 \mathrm{E}-11$ is the same as $1,12^{*} 10^{-11}$ or 0,0000000000112 .

| WASTE CATEGORIES AND OUTPUT FLOWS PER KG |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Parameter | Unit | A1 | A2 | A3 | A4 | A5 | B1-B7 | C1 | C2 | C3 | C4 | D |
| HWD | [kg] | 1,64E-05 | 4,23E-12 | 1,25E-09 | MND | MND | MND | MND | MND | MND | MND | MND |
| NHWD | [kg] | 3,84E-03 | 1,25E-05 | 1,08E-01 | MND | MND | MND | MND | MND | MND | MND | MND |
| RWD | [kg] | 2,31E-05 | 1,02E-07 | 6,46E-04 | MND | MND | MND | MND | MND | MND | MND | MND |
| CRU | [kg] | 0,00E+00 | 0,00E+00 | 0,00E+00 | MND | MND | MND | MND | MND | MND | MND | MND |
| MFR | [kg] | 0,00E+00 | 0,00E+00 | 0,00E+00 | MND | MND | MND | MND | MND | MND | MND | MND |
| MER | [kg] | 0,00E+00 | 0,00E+00 | 0,00E+00 | MND | MND | MND | MND | MND | MND | MND | MND |
| EEE | [MJ] | 0,00E+00 | 0,00E+00 | 0,00E+00 | MND | MND | MND | MND | MND | MND | MND | MND |
| EET | [MJ] | 0,00E+00 | 0,00E+00 | 0,00E+00 | MND | MND | MND | MND | MND | MND | MND | MND |
| Caption | HWD = Hazardous waste disposed; NHWD = Non hazardous waste disposed; RWD = Radioactive waste disposed; CRU = Components for re-use; MFR = Materials for recycling; MER = Materials for energy recovery; EEE = Exported electrical energy; EET = Exported thermal energy |  |  |  |  |  |  |  |  |  |  |  |

