FRONT®
Formerly StoneCycling

WasteBasedBricks (2Good2Waste)

# EPD (Environmental Product Declaration)

# ABOUT OUR IMPACT

At FRONT®, we're constantly pushing for environmental improvements of our products. To create the WasteBasedBrick we use a ceramic production process. The firing process of the bricks and slips is the major contributor to the GWP of this product, but essential because it gives a unique technical and aesthetic quality to brick that is such a part of (west) European architecture. The results presented in this EPD should be seen as an in-between step. We have an action plan in place to significantly improve the environmental impact of the WasteBasedBrick within the next three years.

These are the key measurements we're taking, now and in the near future:

**Now: compensating carbon**
We compensate the carbon emissions related to the firing process of the bricks. We make use of a program offered by Trees for All. Carbon compensation is not calculated in the EPD, nevertheless we believe it's an important action that we can already take now. More info on: treesforall.nl.

**Now: upcycling waste, saving raw materials**
In general, we believe that the use of waste materials is not valued (enough) in the various calculation methods available. There is not yet a consensus about the standardization of the methodology. From a common-sense perspective, we believe upcycling waste materials that otherwise end up in landfills is a valuable concept.

**Near future: switching to a $H_2$ fired production process**
Changing the energy mix of the production process is key to dramatically improve the impact of the WasteBasedBrick. We have already completed experiments with firing bricks on $H_2$. This is a major step in becoming carbon neutral because in the burning of $H_2$ (that creates the heath for sintering the bricks), no carbon is released. We've also adjusted our recipes and production technology in order to prepare for this step. In '24 we expect to start production with $H_2$ in the mix. By '26 we expect to be able to produce the WasteBasedBricks carbon neutral.

This is our commitment to make sure bricks can stay one of the most important and durable cladding materials for facades.

Sign up for our newsletter to stay updated on these developments.

# Environmental Product Declaration

*according to ISO 14025 and EN 15804*

This declaration is for:

**WasteBasedBricks from 100% Waste**

Provided by:

**StoneCycling**

program operator

**Stichting MRPI®**

publisher

**Stichting MRPI®**

**www.mrpi.nl**

MRPI® registration

**1.1.00470.2023**

date of first issue

**17-11-2023**

date of this issue

**17-11-2023**

expiry date

**17-11-2028**

## COMPANY INFORMATION

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## PRODUCT

WasteBasedBricks from 100% Waste

## DECLARED UNIT/FUNCTIONAL UNIT

1 piece (1 waalformaat = 1.9 kg)

## DESCRIPTION OF PRODUCT

The WasteBasedBrick is made from 100% recycled materials coming from construction, demolition and industrial waste streams. It can be used for facades, wall- and floor cladding and is produced at Zilverschoon Randwijk, Netherlands.

## VISUAL PRODUCT

## MRPI® REGISTRATION

1.1.00470.2023

## DATE OF ISSUE

17-11-2023

## EXPIRY DATE

17-11-2028

## MORE INFORMATION

*www.stonecycling.com/wastebasedbricks/*

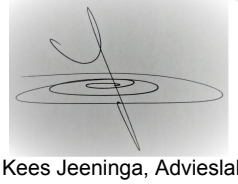
## SCOPE OF DECLARATION

This MRPI®-EPD certificate is verified by **Anne Kees Jeeninga, Advieslab v.o.f..**
The LCA study has been done by **Bob Roijen, SGS INTRON.**
The certificate is based on an LCA-dossier according to ISO14025 and EN15804+A2/Bepalingsmethode. It is verified according to the 'MRPI®-EPD verification protocol November 2020.v4.0'. EPDs of construction products may not be comparable if they do not comply with EN15804+A2/Bepalingsmethode. Declaration of SVHC that are listed on the 'Candidate List of Substances of Very High Concern for authorisation' when content exceeds the limits for registration with ECHA.

## PROGRAM OPERATOR

Stichting MRPI®
Kingsfordweg 151
1043GR
Amsterdam

ir. J-P den Hollander, Managing director MRPI®

| *DEMONSTRATION OF VERIFICATION* |
|---|
| CEN standard EN15804 serves as the core PCR[a] |
| Independent verification of the declaration and data, according to EN ISO 14025:2010: internal: external: X |
| Third party verifier:  Anne Kees Jeeninga, Advieslab v.o.f. |
| [a] PCR = Product Category Rules |

## DETAILED PRODUCT DESCRIPTION

The study is performed on the most optimal product, the WasteBasedBrick® Impact. WasteBasedBricks® are unique and produced from 100% secondary materials. The following process steps take place sequentially.

1- Mold preparation, the production of wooden molds used to form the bricks. The material and energy consumption for this process step has been inventoried and included in the LCA calculations.

2- Preparation of the 100% waste-based recipe, unitising the waste clay from the factory itself and mixing it with secondary materials such as waste from the ceramic industry.

3- Forming, the bricks are formed using the previously produced molds. Molding sand is used for this, which has been dried at the supplier's. The extraction, drying and shaping of the sand is included in the LCA calculations.

4- Drying, the green bricks are dried. Up to and including this production step, all “production waste” / rejects can be added again at the beginning of the production process.

5- Stacking, the dried bricks are stacked on hulos in the oven.

6- Baking, the bricks are baked. This uses natural gas and electricity. The firing curve is optimised for the 100% waste based recipe.

7- Packing, the bricks are prepared for delivery.

It's noteworthy that WasteBasedBricks® boast an exceptional service life, often surpassing the lifespan of the structures they are used to build. This durability further underscores StoneCycling’s commitment to sustainability and long-term environmental responsibility.

| COMPONENT > 1% of total mass | [%] |
|---|---|
| Waste Clay | - |
| Waste material 1 (mineral based) | - |
| Waste material 2 (mineral based) | - |

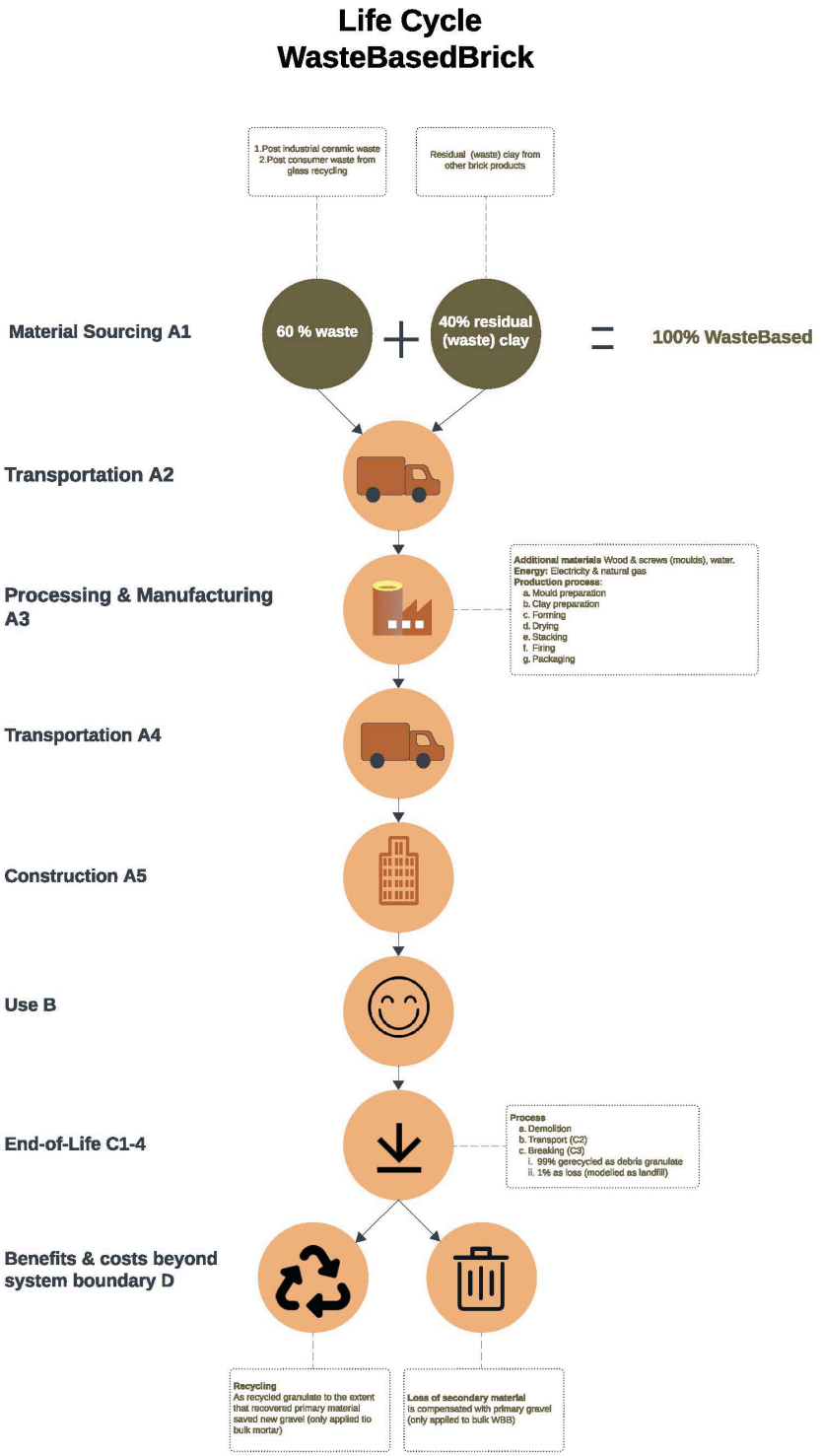
## SCOPE AND TYPE

WasteBasedBricks® are produced in Heteren, the Netherlands. The waste treatment scenario used for this EPD is based on the Dutch waste treatment scenario.

| PRODUCT STAGE | | | CONSTRUCTION PROCESS STAGE | | USE STAGE | | | | | | | END OF LIFE STAGE | | | | BENEFITS AND LOADS BEYOND THE SYSTEM BOUNDARIES |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Raw material supply | Transport | Manufacturing | Transport gate to site | Assembly | Use | Maintenance | Repair | Replacement | Refurbishment | Operational energy use | Operational water use | De-construction demolition | Transport | Waste processing | Disposal | Reuse-Recovery-Recycling-potential |
| A1 | A2 | A3 | A4 | A5 | B1 | B2 | B3 | B4 | B5 | B6 | B7 | C1 | C2 | C3 | C4 | D |
| X | X | X | ND | ND | ND | ND | ND | ND | ND | ND | ND | X | X | X | X | X |

X = Modules Assessed

ND = Not Declared




*LCA process diagram according to EN 15804 (7.2.1)*

## REPRESENTATIVENESS

The bricks in this study are produced in Heteren, the Neterlands by Zilverschoon Randwijk.

## ENVIRONMENTAL IMPACT per functional unit or declared unit (indicators A1)

| | UNIT | A1 | A2 | A3 | A1-A3 | C1 | C2 | C3 | C4 | D |
|---|---|---|---|---|---|---|---|---|---|---|
| ADPE | kg Sb eq. | 7.45 E-8 | 4.54 E-7 | 5.81 E-7 | 1.11 E-6 | 3.25 E-8 | 3.10 E-7 | 8.28 E-9 | 8.70 E-10 | 3.77 E-9 |
| ADPF | MJ | 6.67 E-2 | 2.69 E-1 | 7.93 E+0 | 8.27 E+0 | 2.92 E-1 | 1.84 E-1 | 3.94 E-2 | 2.66 E-3 | 9.44 E-4 |
| GWP | kg CO2 eq. | 5.63 E-3 | 1.74 E-2 | 4.90 E-1 | 5.13 E-1 | 2.10 E-2 | 1.19 E-2 | 2.90 E-3 | 9.33 E-5 | 7.40 E-5 |
| ODP | kg CFC11 eq. | 4.64 E-10 | 3.23 E-9 | 6.16 E-8 | 6.52 E-8 | 3.63 E-9 | 2.21 E-9 | 3.18 E-10 | 3.11 E-11 | 6.45 E-12 |
| POCP | kg ethene eq. | 3.71 E-6 | 1.04 E-5 | 7.69 E-5 | 9.10 E-5 | 2.14 E-5 | 7.14 E-6 | 1.66 E-6 | 9.94 E-8 | 5.47 E-8 |
| AP | kg SO2 eq. | 3.91 E-5 | 7.49 E-5 | 3.74 E-4 | 4.88 E-4 | 1.58 E-4 | 5.12 E-5 | 1.34 E-5 | 6.82 E-7 | 4.20 E-7 |
| EP | kg (PO4)3- eq. | 4.48 E-6 | 1.50 E-5 | 4.90 E-5 | 6.84 E-5 | 3.59 E-5 | 1.02 E-5 | 2.99 E-6 | 1.32 E-7 | 6.85 E-8 |

Toxicity indicators for Dutch market

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| HTP | kg DCB eq. | 2.13 E-3 | 7.45 E-3 | 5.26 E-2 | 6.22 E-2 | 7.77 E-3 | 5.09 E-3 | 6.90 E-4 | 4.22 E-5 | 3.43 E-5 |
| FAETP | kg DCB eq. | 4.11 E-5 | 2.18 E-4 | 4.83 E-4 | 7.42 E-4 | 1.08 E-4 | 1.49 E-4 | 1.19 E-5 | 1.00 E-6 | 5.31 E-7 |
| MAETP | kg DCB eq. | 1.74 E-1 | 7.79 E-1 | 4.67 E+0 | 5.62 E+0 | 3.76 E-1 | 5.33 E-1 | 4.48 E-2 | 3.58 E-3 | 2.21 E-3 |
| TETP | kg DCB eq. | 1.03 E-5 | 2.64 E-5 | 4.34 E-4 | 4.71 E-4 | 1.28 E-5 | 1.80 E-5 | 8.47 E-6 | 1.06 E-7 | 1.78 E-7 |
| ECI | Euro | 7.03 E-4 | 2.10 E-3 | 3.25 E-2 | 3.53 E-2 | 2.81 E-3 | 1.44 E-3 | 3.00 E-4 | 1.32 E-5 | 9.52 E-6 |
| ADPF | kg Sb. eq. | 3.73 E-5 | 1.28 E-4 | 4.28 E-3 | 4.45 E-3 | 1.38 E-4 | 8.74 E-5 | 2.05 E-5 | 1.27 E-6 | 5.00 E-7 |

ADPE = Abiotic Depletion Potential for non-fossil resources
ADPF = Abiotic Depletion Potential for fossil resources
GWP = Global Warming Potential
ODP = Depletion potential of the stratospheric ozone layer
POCP = Formation potential of tropospheric ozone photochemical oxidants
AP = Acidification Potential of land and water
EP = Eutrophication Potential
HTP = Human Toxicity Potential
FAETP = Fresh water aquatic ecotoxicity potential
MAETP = Marine aquatic ecotoxicity potential
TETP = Terrestrial ecotoxicity potential
ECI = Environmental Cost Indicator
ADPF = Abiotic Depletion Potential for fossil resources expressed in [kg Sb-eq.]

## ENVIRONMENTAL IMPACT per functional unit or declared unit (core indicators A2)

| | UNIT | A1 | A2 | A3 | A1-A3 | C1 | C2 | C3 | C4 | D |
|---|---|---|---|---|---|---|---|---|---|---|
| GWP-total | kg CO2 eq. | 3.39 E-3 | 1.76 E-2 | 4.96 E-1 | 5.17 E-1 | 2.12 E-2 | 1.20 E-2 | 2.95 E-3 | 9.53 E-5 | 7.62 E-5 |
| GWP-fossil | kg CO2 eq. | 5.71 E-3 | 1.75 E-2 | 4.96 E-1 | 5.19 E-1 | 2.12 E-2 | 1.20 E-2 | 2.94 E-3 | 9.50 E-5 | 7.57 E-5 |
| GWP-biogenic | kg CO2 eq. | -2.33 E-3 | 1.07 E-5 | 1.83 E-4 | -2.14 E-3 | 5.90 E-6 | 7.27 E-6 | 1.70 E-5 | 1.88 E-7 | 3.49 E-7 |
| GWP-luluc | kg CO2 eq. | 4.98 E-6 | 6.21 E-6 | 2.64 E-5 | 3.76 E-5 | 1.67 E-6 | 4.25 E-6 | 5.59 E-7 | 2.65 E-8 | 8.14 E-8 |
| ODP | kg CFC11 eq. | 5.60 E-10 | 4.04 E-9 | 6.99 E-8 | 7.45 E-8 | 4.58 E-9 | 2.76 E-9 | 3.81 E-10 | 3.91 E-11 | 7.56 E-12 |
| AP | mol H+ eq. | 4.81 E-5 | 1.00 E-4 | 4.73 E-4 | 6.21 E-4 | 2.22 E-4 | 6.84 E-5 | 1.84 E-5 | 9.02 E-7 | 5.48 E-7 |
| EP-freshwater | kg PO4 eq. | 2.18 E-7 | 1.44 E-7 | 1.08 E-6 | 1.44 E-6 | 7.72 E-8 | 9.90 E-8 | 9.15 E-8 | 1.07 E-9 | 2.80 E-9 |
| EP-marine | kg N eq. | 9.20 E-6 | 3.58 E-5 | 1.26 E-4 | 1.71 E-4 | 9.79 E-5 | 2.45 E-5 | 7.33 E-6 | 3.10 E-7 | 1.57 E-7 |
| EP-terrestrial | mol N eq. | 1.09 E-4 | 3.94 E-4 | 1.39 E-3 | 1.90 E-3 | 1.07 E-3 | 2.70 E-4 | 8.14 E-5 | 3.42 E-6 | 1.82 E-6 |
| POCP | kg NMVOC eq. | 2.99 E-5 | 1.13 E-4 | 4.71 E-4 | 6.13 E-4 | 2.95 E-4 | 7.71 E-5 | 2.21 E-5 | 9.94 E-7 | 5.02 E-7 |
| ADP-minerals & metals | kg Sb eq. | 7.45 E-8 | 4.54 E-7 | 5.81 E-7 | 1.11 E-6 | 3.25 E-8 | 3.10 E-7 | 8.28 E-9 | 8.70 E-10 | 3.77 E-9 |
| ADP-fossil | MJ, net calorific value | 6.67 E-2 | 2.69 E-1 | 7.93 E+0 | 8.27 E+0 | 2.92 E-1 | 1.84 E-1 | 3.94 E-2 | 2.66 E-3 | 9.44 E-4 |
| WDP | m3 world eq. deprived | 2.00 E-2 | 8.27 E-4 | 4.01 E-3 | 2.48 E-2 | 3.91 E-4 | 5.66 E-4 | 1.79 E-4 | 1.19 E-4 | 1.09 E-3 |

GWP-total = Global Warming Potential total
GWP-fossil = Global Warming Potential fossil fuels
GWP-biogenic = Global Warming Potential biogenic
GWP-luluc = Global Warming Potential land use and land use change
ODP = Depletion potential of the stratospheric ozone layer
AP = Acidification Potential, Accumulated Exceedence
EP-freshwater = Eutrophication Potential, fraction of nutrients reaching freshwater end compartment
EP-marine = Eutrophication Potential, fraction of nutrients reaching marine end compartment
EP-terrestrial = Eutrophication Potential, Accumulated Exceedence
POCP = Formation potential of tropospheric ozone photochemical oxidants
ADP-minerals&metals = Abiotic Depletion Potential for non fossil resources [2]
ADP-fossil = Abiotic Depletion for fossil resources potential [2]
WDP = Water (user) deprivation potential, deprivation-weighted water consumption [2]

Disclaimer [2]

- The results of this environmental impact indicator shall be used with care as the uncertainties on these results are high or as there is limited experience with the indicator.

## ENVIRONMENTAL IMPACT per functional unit or declared unit (additional indicators A2)

| | UNIT | A1 | A2 | A3 | A1-A3 | C1 | C2 | C3 | C4 | D |
|---|---|---|---|---|---|---|---|---|---|---|
| PM | Disease incidence | 6.91 E-10 | 1.58 E-9 | 2.34 E-9 | 4.61 E-9 | 5.87 E-9 | 1.08 E-9 | 4.06 E-10 | 1.75 E-11 | 9.40 E-12 |
| IRP | kBq U235 eq. | 2.05 E-4 | 1.18 E-3 | 3.62 E-3 | 5.00 E-3 | 1.25 E-3 | 8.05 E-4 | 1.25 E-4 | 1.09 E-5 | 3.81 E-6 |
| ETP-fw | CTUe | 1.33 E-1 | 2.19 E-1 | 8.92 E-1 | 1.24 E+0 | 1.76 E-1 | 1.50 E-1 | 3.20 E-2 | 1.72 E-3 | 1.52 E-3 |
| HTP-c | CTUh | 5.94 E-12 | 7.79 E-12 | 5.74 E-11 | 7.11 E-11 | 6.15 E-12 | 5.32 E-12 | 7.59 E-13 | 3.98 E-14 | 5.63 E-14 |
| HTP-nc | CTUh | 8.31 E-11 | 2.61 E-10 | 9.48 E-10 | 1.29 E-9 | 1.51 E-10 | 1.78 E-10 | 2.14 E-11 | 1.23 E-12 | 1.59 E-12 |
| SQP | --- | 3.32 E-1 | 2.30 E-1 | 1.52 E-1 | 7.14 E-1 | 3.72 E-2 | 1.58 E-1 | 6.58 E-3 | 5.57 E-3 | 1.22 E-3 |

PM = Potential incidence of disease due to PM emissions
IRP = Potential Human exposure efficiency relative to U235 [1]
ETP-fw = Potential Comparative Toxic Unit for ecosystems [2]
HTP-c = Potential Comparative Toxic Unit for humans [2]
HTP-nc = Potential Comparative Toxic Unit for humans, non-cancer [2]
SQP = Potential soil quality index [2]

Disclaimer [1]

- 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.

Disclaimer [2]

- The results of this environmental impact indicator shall be used with care as the uncertainties on these results are high or as there is limited experience with the indicator.

## RESOURCE USE per functional unit or declared unit (A1 / A2)

| | UNIT | A1 | A2 | A3 | A1-A3 | C1 | C2 | C3 | C4 | D |
|---|---|---|---|---|---|---|---|---|---|---|
| PERE | MJ | 4.59 E-2 | 3.86 E-3 | 4.59 E-1 | 5.09 E-1 | 1.58 E-3 | 2.64 E-3 | 2.24 E-3 | 2.15 E-5 | 6.55 E-5 |
| PERM | MJ | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| PERT | MJ | 4.59 E-2 | 3.86 E-3 | 4.59 E-1 | 5.09 E-1 | 1.58 E-3 | 2.64 E-3 | 2.24 E-3 | 2.15 E-5 | 6.55 E-5 |
| PENRE | MJ | 7.08 E-2 | 2.86 E-1 | 8.79 E+0 | 9.15 E+0 | 3.10 E-1 | 1.96 E-1 | 4.21 E-2 | 2.82 E-3 | 1.00 E-3 |
| PENRM | MJ | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| PENRT | MJ | 7.08 E-2 | 2.86 E-1 | 8.79 E+0 | 9.15 E+0 | 3.10 E-1 | 1.96 E-1 | 4.21 E-2 | 2.82 E-3 | 1.00 E-3 |
| SM | kg | 1.90 E+0 | 0.00 | 0.00 | 1.90 E+0 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| RSF | MJ | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| NRSF | MJ | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| FW | m3 | 4.87 E-4 | 3.05 E-5 | 1.92 E-4 | 7.09 E-4 | 1.50 E-5 | 2.09 E-5 | 1.32 E-5 | 2.84 E-6 | 2.55 E-5 |

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

## OUTPUT FLOWS AND WASTE CATEGORIES per functional unit or declared unit (A1 / A2)

| | UNIT | A1 | A2 | A3 | A1-A3 | C1 | C2 | C3 | C4 | D |
|---|---|---|---|---|---|---|---|---|---|---|
| HWD | kg | 1.51 E-7 | 6.89 E-7 | 1.08 E-5 | 1.16 E-5 | 7.95 E-7 | 4.71 E-7 | 6.87 E-8 | 3.97 E-9 | 1.91 E-9 |
| NHWD | kg | 1.49 E-3 | 1.67 E-2 | 7.09 E-3 | 2.53 E-2 | 3.45 E-4 | 1.14 E-2 | 5.50 E-3 | 3.61 E-2 | 1.02 E-5 |
| RWD | kg | 2.71 E-7 | 1.83 E-6 | 5.23 E-6 | 7.34 E-6 | 2.03 E-6 | 1.25 E-6 | 1.77 E-7 | 1.75 E-8 | 4.13 E-9 |
| CRU | kg | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| MFR | kg | 0.00 | 0.00 | 2.85 E-2 | 2.85 E-2 | 0.00 | 0.00 | 1.79 E+0 | 0.00 | 0.00 |
| MER | kg | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| EEE | MJ | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| ETE | MJ | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

HWD = Hazardous Waste Disposed
NHWD = Non Hazardous Waste Disposed
RWD = Radioactive Waste Disposed
CRU = Components for reuse
MFR = Materials for recycling
MER = Materials for energy recovery
EEE = Exported Electrical Energy
ETE = Exported Thermal Energy

## BIOGENIC CARBON CONTENT per functional unit or declared unit (A1 / A2)

| | UNIT | A1 | A2 | A3 | A1-A3 | C1 | C2 | C3 | C4 | D |
|---|---|---|---|---|---|---|---|---|---|---|
| BCCpr | kg C | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| BCCpa | kg C | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

BCCpr = Biogenic carbon content in product
BCCpa = Biogenic carbon content in packaging

## CALCULATION RULES

Virtually no materials or processes have been excluded from the LCA. Zilverschoon Randwijk inventoried process data in 2023. Energy and material use has been calculated based on the actual recipe, the machinery used and the production rate.

Regarding the secondary materials applied in the bricks processing and transport to the production location has been allocated to the product system that produces the waste. All processes at the location of Zilverschoon Randwijk have been allocated to the production of WasteBasedBricks.

## SCENARIOS AND ADDITIONAL TECHNICAL INFORMATION

The end of life is based on processes in the Dutch national LCA database and LCA manual.

| Description | amount | unit |
|---|---|---|
| Demolition (C1): diesel use | 5.2 | l/m3 waste |
| Demolition (C1): excavator | 0.06 | hr/m3 waste |
| Transport to waste tratment (crusher) by truck (C2) | 50 | km |
| Crushing (C3): 0270-reC & Breken, per kg steenachtig (Dutch LCA database). | 1 | kg/kg waste |
| Loss 1% (modelled as landfill) (C4) 0240-sto&Stort beton, cellenbeton â€¦ (Dutch LCA database) | 0.01 | kg/kg waste |

## DECLARATION OF SVHC

No substances that are listed in the latest “Candidate List of Substances of Very High Concern for authorisation” are included in the product that exceed the limit for registration.

## REFERENCES


•Stichting Nationale Milieudatabase, Bepalingsmethode Milieuprestatie Bouwwerken Versie 1.0 (juli 2020).

•EN 15804:2012+A2:2019, Sustainability of construction works - Environmental product declarations - Core rules for the product category of construction products, 2019.

•ISO 14040:2006. Environmental management – Life cycle assessment – Principles and framework. 2006.

•ISO 14044:2006. Environmental management – Life cycle assessment – Requirements and guidelines. 2006.

•ISO 21930:2017. Sustainability in buildings and civil engineering works – Core rules for environmental product declarations of construction products and services. 2017.

• ISO 14025:2006. Environmental labels and declarations – Type III environmental declarations – Principles and procedures. 2006.

•SGS INTRON report: A135280/R20231298, July 2023


## REMARKS

StoneCycling is continuously innovating their product. We’re actively working towards carbon neutral fired bricks by changing the fuel type. Read more on stonecycling.com/news/carbon-neutral-bricks/.

FRONT®
Formerly StoneCycling

# Contact FRONT®

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