



## MRPI CERTIFICATE

**Declared Unit:**

1 m2 water-glass (sodium silicate) gel injected soil,  
with lance heart distance of 0.9 m and depth 8 m - 12 m (Soil-ID B.V.)

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## Company Information

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### Declared Units:

1 m<sup>2</sup> water-glass (sodium silicate) gel injected soil, with lance heart distance of 0.9 m and depth 8 m - 12 m (Soil-ID B.V.)

### Soil-id

Rudonk 2  
4824 AJ Breda

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### MRPI code:

30.1.00022.004

### Date of issue:

03-11-2015

### End of validity:

03-11-2020

## Scope of the declaration

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This MRPI certificate is verified by IVAM UVA B.V. The LCA was performed by Search Consultancy B.V. The data on this MRPI – certificate are based on ISO 14025, and the European Standard EN 15804:2012, and on the NL national guidelines from the SBK protocol of November 2014 and the MRPI – review protocol version 21 2011.

## Accountability

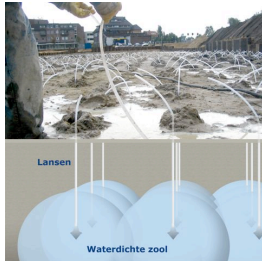
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CEN standard EN 15804 and the NL national guidelines serve as the core PCR  
Independent verification of the declaration, according to EN ISO 14025:2010, € Internal x External  
Third party verifier: IVAM UVA B.V.

As a general rule, a comparison or evaluation of EPD data is only possible when all of the data records to be compared have been drawn up in accordance with EN 15804, the NL national guidelines from the SBK protocol of November 2014 and the building context and/or product-specific performance features are taken into consideration.



## Visual representation



## Product description

Material composition (>1%wt).	%
Potable water	77-78 %
Sodium Silicate	19-20 %
Sodium Aluminate	2-3 %

## Environmental profile functional unit / Declared Unit

Impact category	Unit	Parameter	Unit
Depletion of abiotic resources-elements	2,79E-04 kg Sb	renewable primary energy ex. raw materials	na MJ
Depletion of abiotic resources-fossil fuels	6,90E-01 kg Sb MJ	renewable primary energy used as raw materials	na MJ
Global warming	9,84E+01 kg CO <sub>2</sub>	renewable primary energy total	3,88E+01 MJ
Ozone layer depletion	8,67E-06 kg CFK-11	non-renewable primary energy ex. raw materials	na MJ
Photochemical ozon creation	5,07E-02 kg ethene	non-renewable primary energy used as raw materials	na MJ
Acidification (soil and water)	4,51E-01 kg SO <sub>2</sub>	non-renewable primary energy total	1,52E+03 MJ
Eutrophication	8,91E-02 kg PO <sub>4</sub> <sup>3-</sup>	use of secondary material	na kg
Human toxicity	5,43E+01 kg 1,4 DB	use of renewable secondary fuels	na MJ
Ecotoxicity, fresh water	1,17E+00 kg 1,4 DB	use of non-renewable secondary fuels	na MJ
Ecotoxicity, marine water (MAETP)	8,32E+03 kg 1,4 DB	use of net fresh water	9,77E+01 m3
Ecotoxicity, terrestrial	6,37E-01 kg 1.4 DB	hazardous waste disposed	0,00E+00 kg
MKI Value (Dutch)	13,42 Euro	non hazardous waste disposed	0,00E+00 kg
		radioactive waste disposed	na kg
		Components for re-use	na kg
		Materials for recycling	na kg
		Materials for energy recovery	na kg
		Exported energy	na MJ

## Environmental profile and rating representative

The project is made on projectlocations in the Benelux.





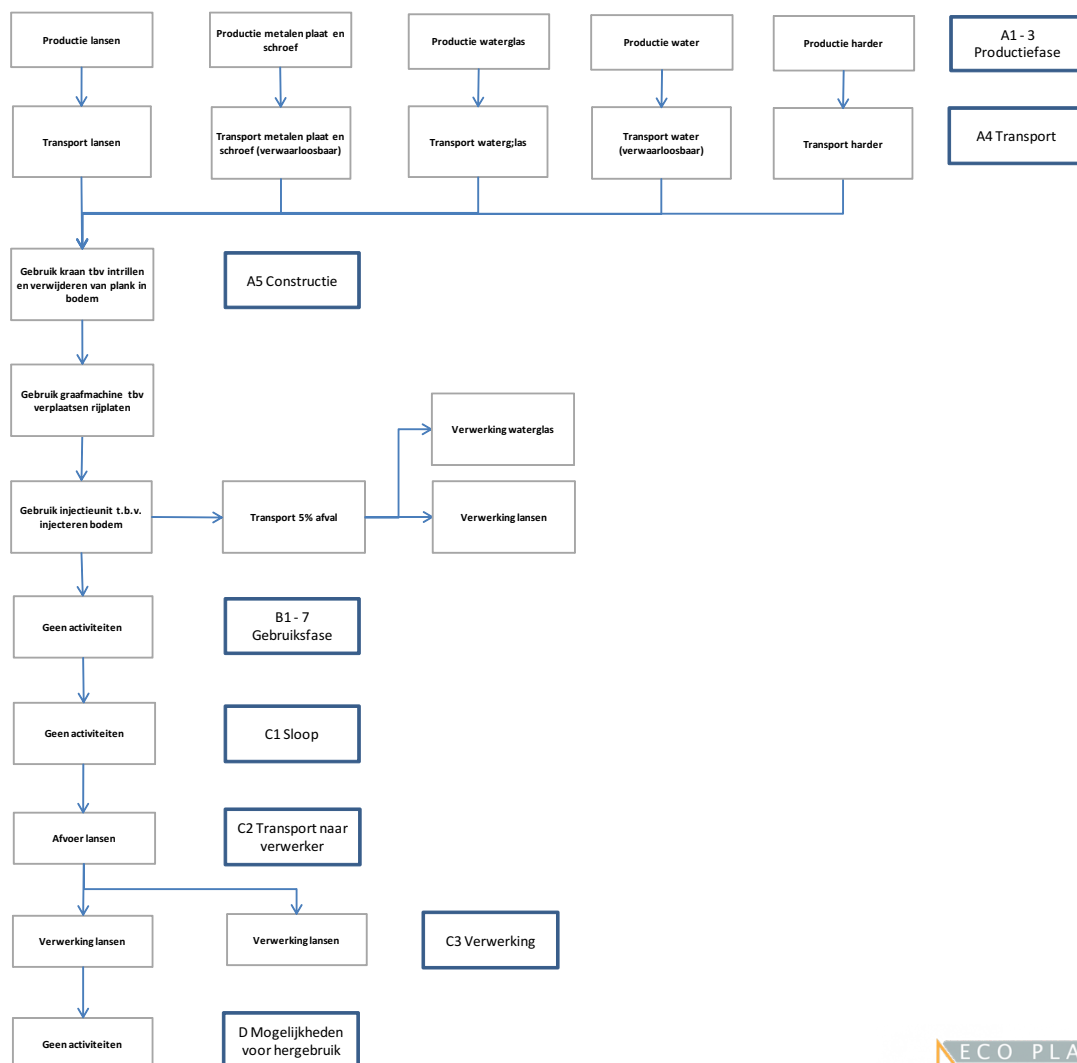
## NL Building-act information

Impact category		Unit
Depletion of abiotic resources-elements	2,79E-04	kg Sb
Depletion of abiotic resources-fossil fuels	6,90E-01	kg Sb
Global warming	9,84E+01	kg CO <sub>2</sub>

## Data quality

SimaPro 8 has been used for LCA calculations, applying EcoInvent v3.0 and Nationale Milieu Database V1.7. The base year 2014 has been selected to inquire the inventory data.

## Life cycle stages



## Environmental product declaration construction process stage (A1-3)



- A1, raw material extraction and processing, processing of secondary material input (e.g. recycling processes)
- A2, transport to the manufacturer
- A3, manufacturing

Impact category	Unit	A1-A3
Depletion of abiotic resources-elements	Kg Sb	2,33E-04
Depletion of abiotic resources-fossil fuels	MJ	2,28E-01
Global warming	Kg CO <sub>2</sub> Equiv.	3,39E+01
Ozone layer depletion	Kg CFC-11 Equiv.	2,66E-06
Acidification for soil and water	Kg SO <sub>2</sub> Equiv.	1,51E-01
Eutrophication	Kg PO <sub>4</sub> <sup>3-</sup> Equiv.	1,95E-02
Photochemical ozon creation	Kg Ethene Equiv.	1,31E-02
Parameter	Unit	A1-A3
renewable primary energy ex. raw materials	MJ	na
renewable primary energy used as raw materials	MJ	na
renewable primary energy total	MJ	1,63E+01
non-renewable primary energy ex. raw materials	MJ	na
non-renewable primary energy used as raw materials	MJ	na
non-renewable primary energy total	MJ	5,11E+02
use of secondary material	Kg	na
use of renewable secondary fuels	MJ	na
use of non-renewable secondary fuels	MJ	na
use of net fresh water	M <sup>3</sup>	6,51E+01
hazardous waste disposed	Kg	0,00E+00
non hazardous waste disposed	Kg	0,00E+00
radioactive waste disposed	Kg	na
Components for re-use	Kg	na
Materials for recycling	Kg	na
Materials for energy recovery	Kg	na
Exported energy	MJ	na

## Environmental product declaration construction process stage (A4-5)



- A4, transport to the building site
- A5, installation into the building

Impact category	Unit	A4	A5
Depletion of abiotic resources-elements	kg Sb	2,08E-06	4,11E-05
Depletion of abiotic resources-fossil fuels	MJ	5,18E-03	4,28E-01
Global warming	kg CO <sub>2</sub> Equiv.	7,16E-01	5,98E+01
Ozone layer depletion	kg CFC-11 Equiv.	1,15E-07	4,97E-06
Acidification for soil and water	kg SO <sub>2</sub> Equiv.	3,87E-03	2,79E-01
Eutrophication	kg PO <sub>4</sub> <sup>3-</sup> Equiv.	8,92E-04	6,48E-02
Photochemical ozone creation	kg Ethene Equiv.	5,28E-04	3,39E-02
Parameter	Unit		
renewable primary energy ex. raw materials	MJ	na	na
renewable primary energy used as raw materials	MJ	na	na
renewable primary energy total	MJ	1,50E-01	2,22E+01
non-renewable primary energy ex. raw materials	MJ	na	na
non-renewable primary energy used as raw materials	MJ	na	na
non-renewable primary energy total	MJ	1,20E+01	9,31E+02
use of secondary material	kg	na	na
use of renewable secondary fuels	MJ	na	na
use of non-renewable secondary fuels	MJ	na	na
use of net fresh water	m <sup>3</sup>	8,70E-01	2,83E+01
hazardous waste disposed	kg	0,00E+00	0,00E+00
non hazardous waste disposed	kg	0,00E+00	0,00E+00
radioactive waste disposed	kg	na	na
Components for re-use	kg	na	na
Materials for recycling	kg	na	na
Materials for energy recovery	kg	na	na
Exported energy	MJ	na	na