

**Environmental
Product
Declaration**

According to EN15804+A2 (+indicators A1)

This declaration is for:
ThermoActive, roof coating

Provided by:
SICC Coatings GmbH



MRPI® registration:
1.1.00870.2025

Program operator:
Stichting MRPI®
Publisher:
Stichting MRPI®
www.mrpi.nl

Date of first issue:
2-6-2025
Date of this issue:
2-6-2025
Expiry date:
2-6-2030

COMPANY INFORMATION

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MRPI® REGISTRATION

1.1.00870.2025

DATE OF THIS ISSUE

2-6-2025

EXPIRY DATE

2-6-2030

SCOPE OF DECLARATION

This MRPI®-EPD certificate is verified by Lex Roes, Ecochain Technologies B.V. . The LCA study has been done by Ilja Lieshout, Martijn Blaak, EcoReview. The certificate is based on an LCA-dossier according to EN15804+A2 (+indicators A1). 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. 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
1043 GR
Amsterdam

PRODUCT

ThermoActive, roof coating

DECLARED UNIT / FUNCTIONAL UNIT

1 Productiveness (m2)

DESCRIPTION OF PRODUCT

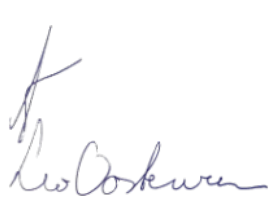
ThermoActive is the climatising roof coating. It ensures cooler rooms under hot sun. ThermoActive extends the service life of the roof structure and reduces the temperatures inside the building. This saves resources for the maintenance of the roof and reduces the energy consumption of the air conditioning systems.

VISUAL PRODUCT



MORE INFORMATION

<https://www.climatecoating.com/en/products/thermoactive/>

Ing. L. L. Oosterveen MSc. MBA Managing Director MRPI 	DEMONSTRATION OF VERIFICATION
	CEN standard EN15804 serves as the core PCR [1]
	Independent verification of the declaration and data according to EN15804+A2 (+indicators A1) Internal: External: X
	Third party verifier: Lex Roes, Ecochain Technologies B.V.  [1] PCR = Product Category Rules

DETAILED PRODUCT DESCRIPTION

The ThermoActive coating is used as an outdoor roof coating. Aside from the aesthetic goal of paint, the goal is to preserve and protect the roof, and reduce temperature inside the building. ThermoActive is prepared in the SICC facility in Berlin, where the ingredients are mixed, dispersed and packaged in 12,5L plastic containers. The reference service life is 20 years.

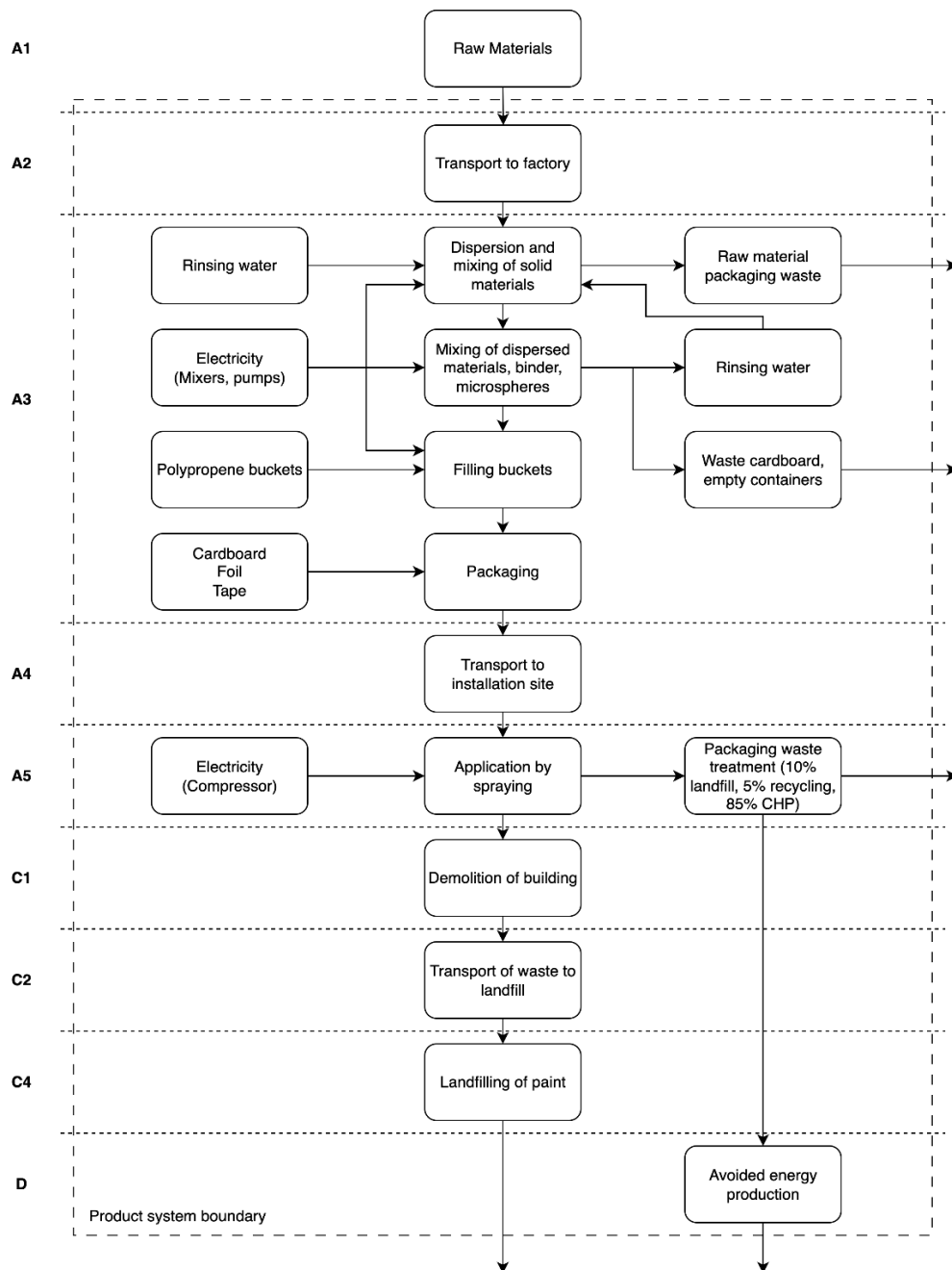
SCOPE AND TYPE

ThermoActive coatings used in The Netherlands, produced in germany, end-of-life in The Netherlands. Background database is Ecoinvent 3.6. Calculated in SimaPro 9.5.0.0. Specific EPD.

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	X	X	X	X	X	X	X	X	X	X	X	X	X	X

X = Modules Assessed

ND = Not Declared



REPRESENTATIVENESS

Representative for specific Berlin facility with specific suppliers and distances.

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

	Unit	A1	A2	A3	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
ADPE	kg Sb eq.	3,84E-05	6,41E-07	1,76E-06	4,08E-05	7,44E-07	6,30E-06	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	2,46E-07	0,00E+00	7,76E-08	-1,16E-08
ADPF	MJ	2,82E+01	3,83E-01	7,65E+00	3,62E+01	6,73E-01	5,60E+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	1,47E-01	0,00E+00	1,72E-01	-8,22E-01
GWP	kg CO2 eq.	1,77E+00	2,51E-02	2,31E-01	2,02E+00	4,34E-02	4,05E-01	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	9,62E-03	0,00E+00	7,02E-02	-4,32E-02
ODP	kg CFC11 eq.	2,76E-07	4,45E-09	3,67E-08	3,17E-07	8,20E-09	4,94E-08	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	1,71E-09	0,00E+00	1,80E-09	-5,01E-09
POCP	kg ethene eq.	1,68E-03	1,51E-05	1,20E-04	1,82E-03	2,64E-05	7,52E-04	3,15E-03	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	5,81E-06	0,00E+00	1,69E-05	-6,09E-06
AP	kg SO2 eq.	1,48E-02	1,10E-04	7,38E-04	1,57E-02	1,13E-04	2,39E-03	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	4,23E-05	0,00E+00	4,70E-05	-2,78E-05
EP	kg (PO4) 3 eq.	1,12E-03	2,17E-05	1,12E-04	1,25E-03	1,86E-05	1,97E-04	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	8,31E-06	0,00E+00	1,12E-05	-4,03E-06

Toxicity indicators and ECI (Dutch market)

HTP	kg DCB eq.	8,90E-01	1,06E-02	4,02E-02	9,40E-01	9,34E-03	1,47E-01	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	4,05E-03	0,00E+00	4,10E-03	-2,23E-03
FAETP	kg DCB eq.	1,87E-01	3,08E-04	1,17E-03	1,88E-01	3,92E-04	2,95E-02	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	1,18E-04	0,00E+00	1,61E-03	-2,25E-05
MAETP	kg DCB eq.	1,63E+02	1,11E+00	4,42E+00	1,69E+02	1,06E+00	2,73E+01	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	4,25E-01	0,00E+00	2,20E+00	-1,01E-01
TETP	kg DCB eq.	3,53E-03	3,73E-05	6,27E-04	4,20E-03	5,33E-05	6,46E-04	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	1,43E-05	0,00E+00	1,45E-05	-7,00E-06
ECI	euro	2,66E-01	3,02E-03	2,05E-02	2,89E-01	3,86E-03	5,04E-02	6,29E-03	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	1,16E-03	0,00E+00	4,49E-03	-2,60E-03
ADPF	kg Sb eq.	1,36E-02	1,84E-04	3,68E-03	1,74E-02	3,24E-04	2,69E-03	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	7,08E-05	0,00E+00	8,27E-05	-3,96E-04

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

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

	Unit	A1	A2	A3	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
GWP-total	kg CO2 eq.	1,84E+00	2,53E-02	2,42E-01	2,11E+00	4,37E-02	4,19E-01	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	9,71E-03	0,00E+00	8,20E-02	-4,37E-02
GWP-fossil	kg CO2 eq.	1,83E+00	2,53E-02	2,37E-01	2,09E+00	4,37E-02	4,17E-01	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	9,71E-03	0,00E+00	8,19E-02	-4,37E-02
GWP-biogenic	kg CO2 eq.	7,67E-03	1,17E-05	4,83E-03	1,25E-02	2,94E-05	1,89E-03	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	4,48E-06	0,00E+00	5,96E-05	-1,14E-05
GWP-luluc	kg CO2 eq.	3,06E-03	9,27E-06	1,88E-04	3,25E-03	1,25E-05	4,92E-04	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	3,56E-06	0,00E+00	3,32E-06	-1,24E-06
ODP	kg CFC11 eq.	2,84E-07	5,58E-09	4,00E-08	3,30E-07	1,03E-08	5,18E-08	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	2,14E-09	0,00E+00	2,25E-09	-5,69E-09
AP	mol H+ eq.	1,71E-02	1,47E-04	9,04E-04	1,82E-02	1,41E-04	2,78E-03	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	5,63E-05	0,00E+00	6,20E-05	-3,58E-05
EP-fresh water	kg PO4 eq.	9,87E-05	2,55E-07	1,64E-05	1,15E-04	3,29E-07	1,74E-05	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	9,79E-08	0,00E+00	1,25E-07	-4,71E-08
EP-marine	kg N eq.	1,80E-03	5,17E-05	1,52E-04	2,01E-03	3,23E-05	3,18E-04	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	1,98E-05	0,00E+00	2,09E-05	-1,07E-05
EP-terrestrial	mol N eq.	1,86E-02	5,70E-04	1,87E-03	2,11E-02	3,63E-04	3,34E-03	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	2,19E-04	0,00E+00	2,31E-04	-1,18E-04
POCP	kg NMVOC eq.	6,96E-03	1,63E-04	6,09E-04	7,73E-03	1,36E-04	2,01E-03	5,31E-03	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	6,24E-05	0,00E+00	8,41E-05	-3,90E-05
ADP-minerals & metals	kg Sb eq.	3,08E-05	6,41E-07	1,76E-06	3,32E-05	7,44E-07	5,16E-06	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	2,46E-07	0,00E+00	7,76E-08	-1,16E-08
ADP-fossil	MJ, net calorific value	2,73E+01	3,81E-01	7,07E+00	3,47E+01	6,81E-01	5,37E+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	1,46E-01	0,00E+00	1,71E-01	-7,31E-01
WDP	m3 world eq. Deprived	1,23E+00	1,36E-03	5,65E-02	1,29E+00	2,94E-03	1,96E-01	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	5,24E-04	0,00E+00	7,36E-03	-3,18E-03

GWP-total	=	Global Warming Potential total
GWP-fossil	=	Global Warming Potential fossil fuels
GWP-biogenic	=	Global Warming Potential biogenictotal
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 [1]
ADP-fossil	=	Abiotic Depletion for fossil resources potential [1]
WDP	=	Water (user) deprivation potential, deprivation-weighted water consumption [1]

Disclaimer [1]:

- 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	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
PM	Disease incidence	9,28E-08	2,27E-09	4,81E-08	1,43E-07	3,02E-09	2,23E-08	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	8,72E-10	0,00E+00	1,18E-09	-1,01E-10
IRP	kBq U235 eq.	9,86E-02	1,60E-03	7,30E-03	1,08E-01	2,96E-03	1,68E-02	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	6,13E-04	0,00E+00	6,73E-04	-2,35E-04
ETP-fw	CTUe	4,94E+01	3,40E-01	2,67E+00	5,24E+01	5,15E-01	8,01E+00	1,47E-03	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	1,31E-01	0,00E+00	1,42E-01	-4,24E-02
HTP-c	CTUh	3,00E-09	1,10E-11	6,10E-11	3,07E-09	1,26E-11	4,68E-10	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	4,23E-12	0,00E+00	9,01E-12	-2,76E-12
HTP-nc	CTUh	7,79E-08	3,72E-10	1,91E-09	8,02E-08	4,03E-10	1,22E-08	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	1,43E-10	0,00E+00	1,21E-10	-3,90E-11
SQP	-	1,04E+01	3,31E-01	7,29E-01	1,14E+01	7,73E-01	1,92E+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	1,27E-01	0,00E+00	4,07E-01	-1,05E-02

- 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.

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.

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

	Unit	A1	A2	A3	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
HWD	kg	2,21E-05	9,67E-07	7,35E-06	3,05E-05	1,67E-06	5,01E-06	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	3,71E-07	0,00E+00	2,62E-07	-9,25E-07
NHWD	kg	6,65E-01	2,42E-02	1,44E-02	7,04E-01	5,87E-02	2,24E-01	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	9,28E-03	0,00E+00	6,88E-01	-2,94E-04
RWD	kg	9,85E-05	2,50E-06	7,93E-06	1,09E-04	4,63E-06	1,74E-05	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	9,61E-07	0,00E+00	1,02E-06	-3,49E-07
CRU	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	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
MFR	kg	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	1,64E-03	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	0,00E+00	0,00E+00
MER	kg	9,42E-04	0,00E+00	0,00E+00	9,42E-04	0,00E+00	2,78E-02	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	0,00E+00	0,00E+00
EEE	MJ	6,39E-03	0,00E+00	0,00E+00	6,39E-03	0,00E+00	1,89E-01	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	0,00E+00	0,00E+00
ETE	MJ	1,10E-02	0,00E+00	0,00E+00	1,10E-02	0,00E+00	3,25E-01	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	0,00E+00	0,00E+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

RESOURCE USE per functional unit or declared unit (A1 and A2)

	Unit	A1	A2	A3	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
PERE	MJ	2,46E+00	4,78E-03	3,23E-01	2,79E+00	8,41E-03	4,20E-01	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	1,83E-03	0,00E+00	2,97E-03	-1,55E-03
PERM	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	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
PERT	MJ	2,46E+00	4,78E-03	3,23E-01	2,79E+00	8,41E-03	4,20E-01	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	1,83E-03	0,00E+00	2,97E-03	-1,55E-03
PENRE	MJ	2,21E+01	4,05E-01	7,69E+00	3,02E+01	7,23E-01	5,75E+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	1,55E-01	0,00E+00	1,82E-01	-8,11E-01
PENRM	MJ	6,96E+00	0,00E+00	0,00E+00	6,96E+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	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
PENRT	MJ	2,91E+01	4,05E-01	7,69E+00	3,72E+01	7,23E-01	5,75E+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	1,55E-01	0,00E+00	1,82E-01	-8,11E-01
SM	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	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
RSF	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	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
NSRF	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	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
FW	m3	3,37E-02	4,65E-05	1,84E-03	3,56E-02	9,27E-05	5,40E-03	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	1,78E-05	0,00E+00	1,79E-04	-4,21E-05

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
NSRF	=	Use of non-renewable secondary fuels
FW	=	Use of net fresh water

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

	Unit	A1	A2	A3	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
BBCpr	kg C	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	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
BCCpa	kg C	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	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00

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

CALCULATION RULES

All relevant inputs and outputs - like emissions, energy and materials - have been considered in this LCA. In accordance with EN15804+A2, the total neglected input flows per module do not exceed 5% of energy usage and mass. Production loss inside the SICC plant was modelled based on emissions to air. Emissions to air in A3 were added to needed A1 raw materials. Data arises from SICC. Other data arises from standard values (for A4, C, D) in Dutch norm 'Bepalingsmethode 1.2'. Client data collection period was 2023. No allocation was done. A worst-case proxy of a pigment representative for all colours was made by using the percentages of hazardous constituents from the safety data sheets of every colour of pigment. Some colours contain other hazardous materials than others. The SDS's only provide the amounts of hazardous material in a percentage range. For every material, the highest value within the range is used. The percentage of each unique constituent was summed, with a total content of 98,05% of hazardous constituents. The remaining 1,95% is filled in with a generic reference for inorganic chemicals (filler is inorganic), to obtain a model where 100% of the contents of the pigment is specified, even though none of the pigments contain 100% hazardous materials. For this reason it is justified this proxy is a representative worst-case to be used for all colours.

SCENARIOS AND ADDITIONAL TECHNICAL INFORMATION

Within A1-A3, the following processes are included: Raw material production. Transport of raw materials to manufacturing location. Transport of ingredients to manufacturing location. Packaging production and transport. For A4, a distance of 663km was assumed (Berlin, Utrecht). C and D values are taken from EoL scenarios shown in table 1.

NMD EoL Scenario number & name	Combined Heat and Power plant %	Recycling %	Landfill %	Reuse %
Paint: 3 Afwerkingen verkleefd aan puin	0	0	100	0
Packaging: 57 Polyolefinen	85	5	10	0

DECLARATION OF SVHC

The product does not contain substances classified as SVHC.

REFERENCES

- ISO. (2006). 'ISO 14044: Environmental management - Life cycle assessment - Requirements and guidelines', International Organization for Standardization, ISO14044:2006.
- ISO. (2006). 'ISO 14040: Environmental management - Life cycle assessment - Principles and Framework', International Organization for Standardization, ISO14040:2006.
- CEN. (2019). EN 15804:2012+A2:2019: Sustainability of construction works – Environmental product declarations – Core rules for the product category of construction products. European Committee for Standardization.
- ISO. (2006). 'ISO 14025: Environmental labels and declarations -- Type III environmental declarations -- Principles and procedures', International Organization for Standardization, ISO14025:2006.
- Stichting Nationale Milieudatabase. (2024, December). Assessment Method for Environmental Performance of Construction Works – Version 1.2, including Amendments 4 and 5. <https://milieudatabase.nl/en/downloads/download/135/>
- CE Delft. (2010). Handboek Schaduwprijzen. Opgehaald van <https://ce.nl/publicaties/handboek-schaduwprijzen-waardering-en-weging-van-emissies-en-milieueffecten/>
- TNO. (sd). Toxiciteit heeft z'n prijs : schaduwprizen voor (eco-)toxiciteit en uitputting van abiotische grondstoffen binnen DuboCalc. Retrieved from https://puc.overheid.nl/rijkswaterstaat/doc/PUC_119145_31/