Environmental Profile

This LCA is calculated according to: ISO 14044, ISO 14040 and EN 15804

Ecochain v3.5.80

Ecochain

Product:	3023387 - KANION PVC Sock.Bend 110x67 Graphite S/S
Unit:	1 piece
Manufacturer:	Wavin - PL -Buk - Extra products

Kanion gutters mean original design, elegance and aesthetics. They are designed to drain 100% of rainwater. It is safe to say that they are intended for the most demanding users.

LCA standard:	EN15804+A2 (2019)
Standard database:	Worldwide - Ecoinvent v 3.6 Cut-Off
Externally verified:	Yes
Issue date:	08-06-2023
End of validity:	08-06-2028
Verifier:	Martijn van Hövell - SGS Search

WAVIN An Orbia business.

SGS SEARCH

This LCA was evaluated according to EN15804+A2. It was concluded that the LCA complies with this standard

The LCA background information and project dossier have been registered in the online Ecochain application in the account Wavin - PL -Buk - Extra products (2020). (☑ = module declared, MND = module not declared).

A1	A2	A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
☑	☑	☑	MND	MND	MND	MND	MND	MND	MND	MND	MND	MND	☑	☑	☑	☑

Product stage

A1 Raw material supply   A2 Transport   A3 Manufacturing

Construction process stage

A4 Transport gate to site
A5 Assembly / Construction installation process

Use stage

B1 Use   B2 Maintenance   B3 Repair   B4 Replacement   B5 Refurbishment
B6 Operational energy use   B7 Operational water use

End-of-Life stage

C1 De-construction demolition   C2 Transport   C3 Waste processing
C4 Disposal

Benefits and loads beyond the system boundaries

D Reuse- Recovery- Recycling- potential

Environmental impacts and parameters

GWP-total = EF EN15804+A2 Climate Change [kg CO2 eq]; **GWP-f** = EF Climate change - Fossil [kg CO2 eq]; **GWP-b** = EF EN15804+A2 Climate Change - Biogenic [kg CO2 eq]; **GWP-luluc** = EF EN15804+A2 Climate Change - Land use and LU change [kg CO2 eq]; **ODP** = EF Ozone depletion [kg CFC11 eq]; **AP** = EF Acidification [mol H+ eq]; **EP-fw** = EF Eutrophication, freshwater [kg P eq]; **EP-m** = EF Eutrophication, marine [kg N eq]; **EP-T** = EF Eutrophication, terrestrial [mol N eq]; **POCP** = EF Photochemical ozone formation [kg NMVOC eq]; **ADP-mm** = EF Resource use, minerals and metals [kg Sb eq]; **ADP-f** = EF Resource use, fossils [MJ]; **WDP** = EF Water use [m3 depriv.]; **PM** = EF Particulate matter [disease inc.]; **IR** = EF Ionising radiation [kBq U-235 eq]; **ETP-fw** = EF Ecotoxicity, freshwater [CTUe]; **HTP-c** = EF Human toxicity, cancer [CTUh]; **HTP-nc** = EF Human toxicity, non-cancer [CTUh]; **SQP** = EF Land use [Pt]; **PERE** = Use of renewable primary energy excluding renewable primary energy resources used as raw materials [MJ]; **PERM** = Use of renewable primary energy resources used as raw materials [MJ]; **PERT** = Total use of renewable primary energy resources [MJ]; **PENRE** = Use of non-renewable primary energy excluding non-renewable primary energy resources used as raw materials [MJ]; **PENRM** = Use of non-renewable primary energy resources used as raw materials [MJ]; **PENRT** = Total use of non-renewable primary energy resources [MJ]; **PET** = Total energy [MJ]; **SM** = Use of secondary material [kg]; **RSF** = Use of renewable secondary fuels [MJ]; **NRSF** = Use of non-renewable secondary fuels [MJ]; **FW** = Use of net fresh water [m3]; **HWD** = Hazardous waste disposed [kg]; **NHWD** = Non-hazardous waste disposed [kg]; **RWD** = Radioactive waste disposed [kg]; **CRU** = Components for re-use [kg]; **MFR** = Materials for recycling [kg]; **MER** = Materials for energy recovery [kg]; **EE** = Exported energy [MJ]; **EET** = Exported energy thermic [MJ]; **EEE** = Exported energy electric [MJ]

Statement of Confidentiality

Results

Environmental impact	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
GWP-total	kg CO2 eq	7.15E-1	1.21E-2	1.45E-4	7.28E-1	8.93E-3	5.32E-1	2.87E-3	-4.10E-1	8.62E-1
GWP-f	kg CO2 eq	9.06E-1	1.21E-2	1.46E-4	9.18E-1	8.92E-3	3.00E-1	2.87E-3	-4.80E-1	7.50E-1
GWP-b	kg CO2 eq	-1.92E-1	7.34E-6	-1.54E-6	-1.92E-1	5.42E-6	2.32E-1	3.56E-6	7.09E-2	1.11E-1
GWP-luluc	kg CO2 eq	1.19E-3	4.28E-6	1.49E-7	1.19E-3	3.16E-6	1.13E-4	7.69E-8	-8.49E-4	4.61E-4
ODP	kg CFC11 eq	3.87E-7	2.79E-9	8.26E-12	3.90E-7	2.06E-9	3.16E-8	1.06E-10	-2.03E-7	2.20E-7
AP	mol H+ eq	4.46E-3	6.89E-5	1.47E-6	4.53E-3	5.08E-5	5.62E-4	2.58E-6	-2.02E-3	3.13E-3
EP-fw	kg P eq	4.21E-5	9.95E-8	8.24E-9	4.22E-5	7.34E-8	3.80E-6	3.45E-9	-2.20E-5	2.40E-5
EP-m	kg N eq	8.39E-4	2.46E-5	1.55E-7	8.64E-4	1.82E-5	1.43E-4	1.58E-6	-3.89E-4	6.37E-4
EP-T	mol N eq	9.00E-3	2.72E-4	1.85E-6	9.27E-3	2.00E-4	1.57E-3	1.03E-5	-4.28E-3	6.77E-3
POCP	kg NMVOC eq	2.94E-3	7.77E-5	6.28E-7	3.02E-3	5.73E-5	4.69E-4	3.55E-6	-1.42E-3	2.12E-3
ADP-mm	kg Sb eq	6.98E-4	3.13E-7	1.97E-8	6.98E-4	2.31E-7	2.21E-6	2.61E-9	-8.77E-6	6.92E-4
ADP-f	MJ	2.07E+1	1.86E-1	1.36E-3	2.09E+1	1.37E-1	1.48E+0	7.74E-3	-1.09E+1	1.17E+1
WDP	m3 depriv.	1.21E+0	5.70E-4	5.22E-5	1.21E+0	4.20E-4	5.61E-2	5.92E-5	-6.66E-1	6.01E-1
PM	disease inc.	3.65E-8	1.09E-9	9.08E-12	3.76E-8	8.05E-10	7.03E-9	5.33E-11	-2.02E-8	2.53E-8
IR	kBq U-235 eq	4.53E-2	8.11E-4	1.02E-6	4.61E-2	5.98E-4	5.30E-3	3.54E-5	-2.36E-2	2.85E-2
ETP-fw	CTUe	3.00E+1	1.51E-1	1.21E-2	3.02E+1	1.11E-1	1.10E+1	1.20E-1	-1.19E+1	2.95E+1
HTP-c	CTUh	9.28E-10	5.36E-12	6.17E-13	9.34E-10	3.96E-12	1.78E-10	2.20E-13	-3.19E-10	7.98E-10
HTP-nc	CTUh	2.43E-8	1.80E-10	1.57E-11	2.45E-8	1.33E-10	3.96E-9	2.31E-11	-7.47E-9	2.11E-8
SQP	Pt	2.25E+1	1.59E-1	2.24E-3	2.27E+1	1.17E-1	9.18E-1	1.98E-2	-2.82E+1	-4.47E+0

Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	6.05E+0	2.66E-3	2.40E-2	6.08E+0	1.96E-3	1.04E-1	2.84E-4	-4.89E+0	1.29E+0
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	6.05E+0	2.66E-3	2.40E-2	6.08E+0	1.96E-3	1.04E-1	2.84E-4	-4.89E+0	1.29E+0
PENRE	MJ	2.22E+1	1.97E-1	1.44E-3	2.24E+1	1.45E-1	1.58E+0	8.21E-3	-1.17E+1	1.25E+1
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	2.22E+1	1.97E-1	1.44E-3	2.24E+1	1.45E-1	1.58E+0	8.21E-3	-1.17E+1	1.25E+1
PET	MJ	2.83E+1	2.00E-1	2.55E-2	2.85E+1	1.47E-1	1.68E+0	8.49E-3	-1.66E+1	1.38E+1
SM	kg	0	0	0	0	0	0	0	0	0
RSF	MJ	0	0	0	0	0	0	0	0	0
NRSF	MJ	0	0	0	0	0	0	0	0	0
FW	m3	1.51E-2	2.10E-5	1.46E-6	1.51E-2	1.55E-5	1.56E-3	9.44E-6	-8.78E-3	7.89E-3

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	1.03E-4	4.75E-7	2.73E-13	1.04E-4	3.50E-7	2.50E-6	9.50E-9	-1.12E-5	9.56E-5
NHWD	kg	1.05E-1	1.15E-2	1.05E-6	1.17E-1	8.49E-3	5.67E-2	3.39E-2	-4.38E-2	1.72E-1
RWD	kg	4.06E-5	1.26E-6	1.10E-13	4.18E-5	9.31E-7	5.80E-6	5.02E-8	-2.16E-5	2.70E-5
CRU	kg	0	0	0	0	0	0	0	0	0
MFR	kg	0	0	0	0	0	0	0	0	0
MER	kg	0	0	0	0	0	0	0	0	0
EE	MJ	0	0	0	0	0	0	0	0	0
EET	MJ	0	0	0	0	0	0	0	0	0
EEE	MJ	0	0	0	0	0	0	0	0	0