Environmental Profile

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

Ecochain v3.5.80

Ecochain

Product:	3021620 - KANION PVC Angle ext. 130x90 BN
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	9.43E-1	1.52E-2	1.45E-4	9.59E-1	1.17E-2	7.60E-1	3.82E-3	-5.55E-1	1.18E+0
GWP-f	kg CO2 eq	1.20E+0	1.52E-2	1.46E-4	1.22E+0	1.17E-2	4.48E-1	3.82E-3	-6.55E-1	1.02E+0
GWP-b	kg CO2 eq	-2.58E-1	9.24E-6	-1.54E-6	-2.58E-1	7.12E-6	3.12E-1	4.73E-6	1.01E-1	1.55E-1
GWP-luluc	kg CO2 eq	1.56E-3	5.38E-6	1.49E-7	1.56E-3	4.15E-6	1.48E-4	1.02E-7	-1.18E-3	5.38E-4
ODP	kg CFC11 eq	5.16E-7	3.51E-9	8.26E-12	5.19E-7	2.70E-9	4.13E-8	1.40E-10	-2.69E-7	2.94E-7
AP	mol H+ eq	5.73E-3	8.67E-5	1.47E-6	5.82E-3	6.68E-5	7.40E-4	3.43E-6	-2.66E-3	3.97E-3
EP-fw	kg P eq	5.30E-5	1.25E-7	8.24E-9	5.31E-5	9.65E-8	4.96E-6	4.57E-9	-2.92E-5	2.90E-5
EP-m	kg N eq	1.07E-3	3.10E-5	1.55E-7	1.11E-3	2.39E-5	1.90E-4	2.17E-6	-5.19E-4	8.02E-4
EP-T	mol N eq	1.16E-2	3.42E-4	1.85E-6	1.19E-2	2.64E-4	2.09E-3	1.36E-5	-5.71E-3	8.55E-3
POCP	kg NMVOC eq	3.86E-3	9.77E-5	6.28E-7	3.96E-3	7.53E-5	6.23E-4	4.71E-6	-1.86E-3	2.80E-3
ADP-mm	kg Sb eq	3.05E-4	3.94E-7	1.97E-8	3.05E-4	3.04E-7	2.88E-6	3.46E-9	-1.18E-5	2.97E-4
ADP-f	MJ	2.88E+1	2.34E-1	1.36E-3	2.91E+1	1.80E-1	1.94E+0	1.03E-2	-1.48E+1	1.64E+1
WDP	m3 depriv.	1.61E+0	7.17E-4	5.22E-5	1.62E+0	5.53E-4	7.37E-2	7.75E-5	-8.82E-1	8.08E-1
PM	disease inc.	4.78E-8	1.37E-9	9.08E-12	4.92E-8	1.06E-9	9.23E-9	7.07E-11	-2.67E-8	3.29E-8
IR	kBq U-235 eq	6.00E-2	1.02E-3	1.02E-6	6.10E-2	7.87E-4	6.94E-3	4.70E-5	-3.17E-2	3.71E-2
ETP-fw	CTUe	3.48E+1	1.90E-1	1.21E-2	3.50E+1	1.46E-1	1.44E+1	1.57E-1	-1.59E+1	3.38E+1
HTP-c	CTUh	9.31E-10	6.75E-12	6.17E-13	9.38E-10	5.20E-12	2.38E-10	2.91E-13	-4.24E-10	7.57E-10
HTP-nc	CTUh	2.62E-8	2.26E-10	1.57E-11	2.65E-8	1.74E-10	5.21E-9	3.03E-11	-1.20E-8	1.98E-8
SQP	Pt	3.03E+1	2.00E-1	2.24E-3	3.05E+1	1.54E-1	1.20E+0	2.62E-2	-3.87E+1	-6.84E+0

Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	8.23E+0	3.35E-3	2.40E-2	8.26E+0	2.58E-3	1.36E-1	3.79E-4	-6.71E+0	1.68E+0
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	8.23E+0	3.35E-3	2.40E-2	8.26E+0	2.58E-3	1.36E-1	3.79E-4	-6.71E+0	1.68E+0
PENRE	MJ	3.09E+1	2.48E-1	1.44E-3	3.12E+1	1.91E-1	2.07E+0	1.09E-2	-1.60E+1	1.75E+1
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	3.09E+1	2.48E-1	1.44E-3	3.12E+1	1.91E-1	2.07E+0	1.09E-2	-1.60E+1	1.75E+1
PET	MJ	3.91E+1	2.51E-1	2.55E-2	3.94E+1	1.94E-1	2.20E+0	1.13E-2	-2.27E+1	1.92E+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	2.01E-2	2.64E-5	1.46E-6	2.01E-2	2.04E-5	2.07E-3	1.25E-5	-1.18E-2	1.04E-2

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	5.68E-5	5.97E-7	2.73E-13	5.74E-5	4.61E-7	3.29E-6	1.26E-8	-1.41E-5	4.71E-5
NHWD	kg	1.31E-1	1.45E-2	1.05E-6	1.46E-1	1.12E-2	7.61E-2	4.50E-2	-5.73E-2	2.21E-1
RWD	kg	5.50E-5	1.59E-6	1.10E-13	5.66E-5	1.22E-6	7.60E-6	6.66E-8	-2.91E-5	3.64E-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