Environmental Profile

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

Ecochain v3.5.80

Product:	3021632 - KANION PVC Angle ext. 130x135 WT
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

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	1.64E+0	1.80E-2	3.09E-4	1.65E+0	9.11E-3	1.20E+0	3.09E-3	-1.50E-1	2.72E+0
GWP-f	kg CO2 eq	1.88E+0	1.80E-2	3.12E-4	1.89E+0	9.10E-3	5.43E-1	3.09E-3	-1.03E+0	1.42E+0
GWP-b	kg CO2 eq	-2.46E-1	1.09E-5	-3.29E-6	-2.46E-1	5.53E-6	6.56E-1	3.62E-6	8.89E-1	1.30E+0
GWP-luluc	kg CO2 eq	6.01E-3	6.36E-6	3.19E-7	6.02E-3	3.22E-6	1.31E-4	8.73E-8	-6.59E-3	-4.38E-4
ODP	kg CFC11 eq	4.83E-7	4.14E-9	1.76E-11	4.87E-7	2.10E-9	4.13E-8	1.10E-10	-2.76E-7	2.54E-7
AP	mol H+ eq	9.58E-3	1.02E-4	3.15E-6	9.68E-3	5.18E-5	9.62E-4	2.71E-6	-5.98E-3	4.72E-3
EP-fw	kg P eq	9.95E-5	1.48E-7	1.76E-8	9.97E-5	7.49E-8	4.51E-6	3.81E-9	-9.33E-5	1.10E-5
EP-m	kg N eq	2.43E-3	3.66E-5	3.31E-7	2.47E-3	1.85E-5	2.98E-4	1.65E-6	-1.31E-3	1.47E-3
EP-T	mol N eq	2.47E-2	4.03E-4	3.96E-6	2.51E-2	2.04E-4	3.26E-3	1.07E-5	-1.50E-2	1.36E-2
POCP	kg NMVOC eq	6.68E-3	1.15E-4	1.34E-6	6.79E-3	5.84E-5	9.74E-4	3.72E-6	-4.08E-3	3.75E-3
ADP-mm	kg Sb eq	1.30E-3	4.65E-7	4.20E-8	1.30E-3	2.35E-7	3.86E-6	2.81E-9	-1.47E-5	1.29E-3
ADP-f	MJ	3.70E+1	2.76E-1	2.90E-3	3.72E+1	1.40E-1	2.22E+0	8.04E-3	-2.03E+1	1.93E+1
WDP	m3 depriv.	1.61E+0	8.46E-4	1.11E-4	1.61E+0	4.29E-4	5.98E-2	8.84E-5	-1.85E+0	-1.85E-1
PM	disease inc.	1.08E-7	1.62E-9	1.94E-11	1.10E-7	8.22E-10	1.31E-8	5.54E-11	-9.83E-8	2.51E-8
IR	kBq U-235 eq	8.98E-2	1.20E-3	2.17E-6	9.10E-2	6.11E-4	8.53E-3	3.64E-5	-7.53E-2	2.49E-2
ETP-fw	CTUe	1.39E+2	2.24E-1	2.58E-2	1.39E+2	1.13E-1	1.17E+1	1.11E-1	-7.40E+1	7.72E+1
HTP-c	CTUh	1.38E-9	7.96E-12	1.32E-12	1.39E-9	4.04E-12	3.26E-10	2.47E-13	-8.26E-10	8.90E-10
HTP-nc	CTUh	3.83E-8	2.67E-10	3.34E-11	3.86E-8	1.35E-10	5.28E-9	2.19E-11	-2.55E-8	1.86E-8
SQP	Pt	6.19E+1	2.36E-1	4.78E-3	6.21E+1	1.20E-1	1.35E+0	2.04E-2	-1.80E+2	-1.16E+2
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	1.19E+1	3.95E-3	5.13E-2	1.19E+1	2.00E-3	1.23E-1	2.82E-4	-3.22E+1	-2.02E+1
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	1.19E+1	3.95E-3	5.13E-2	1.19E+1	2.00E-3	1.23E-1	2.82E-4	-3.22E+1	-2.02E+1
PENRE	MJ	3.97E+1	2.93E-1	3.08E-3	4.00E+1	1.48E-1	2.36E+0	8.54E-3	-2.18E+1	2.07E+1
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	3.97E+1	2.93E-1	3.08E-3	4.00E+1	1.48E-1	2.36E+0	8.54E-3	-2.18E+1	2.07E+1
PET	MJ	5.16E+1	2.97E-1	5.44E-2	5.19E+1	1.50E-1	2.49E+0	8.82E-3	-5.40E+1	5.65E-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	2.93E-2	3.12E-5	3.12E-6	2.93E-2	1.58E-5	1.83E-3	9.68E-6	-3.97E-2	-8.51E-3

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	1.94E-4	7.05E-7	5.83E-13	1.95E-4	3.57E-7	4.57E-6	1.01E-8	-2.30E-5	1.77E-4
NHWD	kg	2.68E-1	1.71E-2	2.25E-6	2.85E-1	8.66E-3	9.65E-2	3.50E-2	-1.11E-1	3.14E-1
RWD	kg	8.71E-5	1.87E-6	2.34E-13	8.90E-5	9.50E-7	1.06E-5	5.18E-8	-7.11E-5	2.94E-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

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