Environmental Profile

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

Ecochain v3.5.80

Product:	3021610 - KANION PVC Angle int. 100x90 BK
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	6.33E-1	1.29E-2	1.45E-4	6.46E-1	6.98E-3	6.46E-1	2.28E-3	-3.54E-1	9.47E-1
GWP-f	kg CO2 eq	8.92E-1	1.29E-2	1.46E-4	9.05E-1	6.97E-3	3.25E-1	2.28E-3	-4.76E-1	7.63E-1
GWP-b	kg CO2 eq	-2.61E-1	7.85E-6	-1.54E-6	-2.61E-1	4.23E-6	3.21E-1	2.82E-6	1.23E-1	1.83E-1
GWP-luluc	kg CO2 eq	1.44E-3	4.58E-6	1.49E-7	1.44E-3	2.47E-6	9.06E-5	6.04E-8	-1.18E-3	3.53E-4
ODP	kg CFC11 eq	3.23E-7	2.98E-9	8.26E-12	3.26E-7	1.61E-9	2.58E-8	8.36E-11	-1.69E-7	1.85E-7
AP	mol H+ eq	4.38E-3	7.37E-5	1.47E-6	4.45E-3	3.97E-5	4.88E-4	2.04E-6	-2.03E-3	2.95E-3
EP-fw	kg P eq	4.10E-5	1.06E-7	8.24E-9	4.12E-5	5.74E-8	3.05E-6	2.71E-9	-2.38E-5	2.05E-5
EP-m	kg N eq	8.85E-4	2.64E-5	1.55E-7	9.11E-4	1.42E-5	1.31E-4	1.31E-6	-4.16E-4	6.41E-4
EP-T	mol N eq	9.36E-3	2.90E-4	1.85E-6	9.65E-3	1.57E-4	1.44E-3	8.13E-6	-4.64E-3	6.62E-3
POCP	kg NMVOC eq	3.09E-3	8.30E-5	6.28E-7	3.17E-3	4.48E-5	4.27E-4	2.80E-6	-1.49E-3	2.16E-3
ADP-mm	kg Sb eq	6.03E-4	3.35E-7	1.97E-8	6.03E-4	1.80E-7	1.89E-6	2.06E-9	-7.72E-6	5.97E-4
ADP-f	MJ	2.04E+1	1.99E-1	1.36E-3	2.06E+1	1.07E-1	1.24E+0	6.11E-3	-1.02E+1	1.18E+1
WDP	m3 depriv.	1.03E+0	6.09E-4	5.22E-5	1.03E+0	3.29E-4	4.46E-2	4.51E-5	-6.21E-1	4.57E-1
PM	disease inc.	4.12E-8	1.17E-9	9.08E-12	4.24E-8	6.29E-10	6.15E-9	4.21E-11	-2.43E-8	2.49E-8
IR	kBq U-235 eq	4.44E-2	8.68E-4	1.02E-6	4.53E-2	4.68E-4	4.49E-3	2.80E-5	-2.34E-2	2.68E-2
ETP-fw	CTUe	3.42E+1	1.61E-1	1.21E-2	3.44E+1	8.69E-2	8.72E+0	9.34E-2	-1.50E+1	2.83E+1
HTP-c	CTUh	8.78E-10	5.74E-12	6.17E-13	8.85E-10	3.09E-12	1.58E-10	1.73E-13	-3.30E-10	7.15E-10
HTP-nc	CTUh	2.17E-8	1.92E-10	1.57E-11	2.19E-8	1.04E-10	3.28E-9	1.80E-11	-7.14E-9	1.82E-8
SQP	Pt	3.00E+1	1.70E-1	2.24E-3	3.02E+1	9.16E-2	7.68E-1	1.56E-2	-4.19E+1	-1.09E+1
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	6.82E+0	2.85E-3	2.40E-2	6.85E+0	1.54E-3	8.38E-2	2.26E-4	-7.17E+0	-2.40E-1
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	6.82E+0	2.85E-3	2.40E-2	6.85E+0	1.54E-3	8.38E-2	2.26E-4	-7.17E+0	-2.40E-1
PENRE	MJ	2.19E+1	2.11E-1	1.44E-3	2.21E+1	1.14E-1	1.32E+0	6.49E-3	-1.10E+1	1.26E+1
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	2.19E+1	2.11E-1	1.44E-3	2.21E+1	1.14E-1	1.32E+0	6.49E-3	-1.10E+1	1.26E+1
PET	MJ	2.88E+1	2.14E-1	2.55E-2	2.90E+1	1.15E-1	1.40E+0	6.71E-3	-1.82E+1	1.23E+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	1.42E-2	2.25E-5	1.46E-6	1.42E-2	1.21E-5	1.27E-3	7.47E-6	-9.55E-3	5.99E-3

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	9.02E-5	5.08E-7	2.73E-13	9.07E-5	2.74E-7	2.19E-6	7.49E-9	-1.13E-5	8.18E-5
NHWD	kg	1.07E-1	1.23E-2	1.05E-6	1.19E-1	6.63E-3	5.12E-2	2.68E-2	-4.42E-2	1.60E-1
RWD	kg	4.22E-5	1.35E-6	1.10E-13	4.36E-5	7.28E-7	5.04E-6	3.97E-8	-2.20E-5	2.74E-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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