Environmental Profile

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

Ecochain v3.5.80

Product:	3021624 - KANION PVC Angle int. 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

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	9.37E-1	1.90E-2	1.45E-4	9.56E-1	1.16E-2	8.89E-1	3.78E-3	-5.65E-1	1.30E+0
GWP-f	kg CO2 eq	1.29E+0	1.89E-2	1.46E-4	1.31E+0	1.16E-2	4.59E-1	3.78E-3	-7.07E-1	1.08E+0
GWP-b	kg CO2 eq	-3.57E-1	1.15E-5	-1.54E-6	-3.57E-1	7.04E-6	4.30E-1	4.68E-6	1.44E-1	2.17E-1
GWP-luluc	kg CO2 eq	1.87E-3	6.70E-6	1.49E-7	1.88E-3	4.11E-6	1.48E-4	1.01E-7	-1.51E-3	5.25E-4
ODP	kg CFC11 eq	5.20E-7	4.36E-9	8.26E-12	5.24E-7	2.67E-9	4.18E-8	1.39E-10	-2.72E-7	2.97E-7
AP	mol H+ eq	6.22E-3	1.08E-4	1.47E-6	6.33E-3	6.61E-5	7.68E-4	3.39E-6	-3.00E-3	4.17E-3
EP-fw	kg P eq	5.84E-5	1.56E-7	8.24E-9	5.85E-5	9.55E-8	5.00E-6	4.52E-9	-3.39E-5	2.97E-5
EP-m	kg N eq	1.21E-3	3.86E-5	1.55E-7	1.25E-3	2.36E-5	2.00E-4	2.14E-6	-5.99E-4	8.79E-4
EP-T	mol N eq	1.30E-2	4.25E-4	1.85E-6	1.34E-2	2.61E-4	2.21E-3	1.35E-5	-6.64E-3	9.23E-3
POCP	kg NMVOC eq	4.31E-3	1.22E-4	6.28E-7	4.43E-3	7.45E-5	6.57E-4	4.66E-6	-2.18E-3	2.98E-3
ADP-mm	kg Sb eq	3.06E-4	4.90E-7	1.97E-8	3.07E-4	3.00E-7	3.00E-6	3.43E-9	-1.22E-5	2.98E-4
ADP-f	MJ	3.01E+1	2.91E-1	1.36E-3	3.04E+1	1.78E-1	1.99E+0	1.01E-2	-1.55E+1	1.71E+1
WDP	m3 depriv.	1.63E+0	8.92E-4	5.22E-5	1.63E+0	5.47E-4	7.33E-2	7.69E-5	-9.42E-1	7.62E-1
PM	disease inc.	5.66E-8	1.71E-9	9.08E-12	5.83E-8	1.05E-9	9.64E-9	6.99E-11	-3.34E-8	3.57E-8
IR	kBq U-235 eq	6.33E-2	1.27E-3	1.02E-6	6.45E-2	7.78E-4	7.16E-3	4.65E-5	-3.45E-2	3.81E-2
ETP-fw	CTUe	4.20E+1	2.36E-1	1.21E-2	4.22E+1	1.45E-1	1.43E+1	1.55E-1	-2.00E+1	3.69E+1
HTP-c	CTUh	1.29E-9	8.40E-12	6.17E-13	1.30E-9	5.15E-12	2.45E-10	2.88E-13	-4.84E-10	1.07E-9
HTP-nc	CTUh	3.07E-8	2.81E-10	1.57E-11	3.10E-8	1.72E-10	5.28E-9	2.99E-11	-9.95E-9	2.65E-8
SQP	Pt	4.05E+1	2.49E-1	2.24E-3	4.07E+1	1.52E-1	1.23E+0	2.59E-2	-5.34E+1	-1.12E+1
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	9.79E+0	4.17E-3	2.40E-2	9.82E+0	2.55E-3	1.37E-1	3.74E-4	-9.15E+0	8.10E-1
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	9.79E+0	4.17E-3	2.40E-2	9.82E+0	2.55E-3	1.37E-1	3.74E-4	-9.15E+0	8.10E-1
PENRE	MJ	3.23E+1	3.09E-1	1.44E-3	3.26E+1	1.89E-1	2.12E+0	1.08E-2	-1.67E+1	1.82E+1
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	3.23E+1	3.09E-1	1.44E-3	3.26E+1	1.89E-1	2.12E+0	1.08E-2	-1.67E+1	1.82E+1
PET	MJ	4.21E+1	3.13E-1	2.55E-2	4.24E+1	1.92E-1	2.25E+0	1.11E-2	-2.58E+1	1.91E+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	2.10E-2	3.29E-5	1.46E-6	2.10E-2	2.02E-5	2.07E-3	1.24E-5	-1.35E-2	9.63E-3

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	6.01E-5	7.43E-7	2.73E-13	6.08E-5	4.55E-7	3.44E-6	1.25E-8	-1.71E-5	4.76E-5
NHWD	kg	1.57E-1	1.80E-2	1.05E-6	1.75E-1	1.10E-2	7.89E-2	4.45E-2	-6.57E-2	2.44E-1
RWD	kg	5.86E-5	1.98E-6	1.10E-13	6.05E-5	1.21E-6	7.94E-6	6.59E-8	-3.21E-5	3.77E-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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