Environmental Profile

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

Ecochain v3.5.80

Product:	3021631 - KANION PVC Angle int. 130x to order 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	1.55E+0	1.95E-2	7.57E-5	1.57E+0	8.40E-3	1.29E+0	2.78E-3	-1.27E-1	2.74E+0
GWP-f	kg CO2 eq	1.89E+0	1.95E-2	7.64E-5	1.91E+0	8.39E-3	5.19E-1	2.78E-3	-1.05E+0	1.38E+0
GWP-b	kg CO2 eq	-3.46E-1	1.18E-5	-8.07E-7	-3.46E-1	5.09E-6	7.74E-1	3.38E-6	9.32E-1	1.36E+0
GWP-luluc	kg CO2 eq	6.14E-3	6.89E-6	7.81E-8	6.15E-3	2.97E-6	1.28E-4	7.56E-8	-6.90E-3	-6.22E-4
ODP	kg CFC11 eq	4.80E-7	4.49E-9	4.32E-12	4.84E-7	1.93E-9	4.13E-8	1.01E-10	-2.66E-7	2.62E-7
AP	mol H+ eq	9.38E-3	1.11E-4	7.71E-7	9.49E-3	4.78E-5	9.70E-4	2.47E-6	-6.22E-3	4.30E-3
EP-fw	kg P eq	9.87E-5	1.60E-7	4.31E-9	9.89E-5	6.90E-8	4.45E-6	3.36E-9	-9.70E-5	6.38E-6
EP-m	kg N eq	2.45E-3	3.97E-5	8.11E-8	2.49E-3	1.71E-5	3.02E-4	1.56E-6	-1.38E-3	1.43E-3
EP-T	mol N eq	2.46E-2	4.37E-4	9.70E-7	2.50E-2	1.88E-4	3.31E-3	9.82E-6	-1.57E-2	1.28E-2
POCP	kg NMVOC eq	6.76E-3	1.25E-4	3.28E-7	6.89E-3	5.39E-5	9.87E-4	3.40E-6	-4.33E-3	3.60E-3
ADP-mm	kg Sb eq	3.08E-4	5.04E-7	1.03E-8	3.09E-4	2.17E-7	3.90E-6	2.52E-9	-1.46E-5	2.98E-4
ADP-f	MJ	3.74E+1	2.99E-1	7.09E-4	3.77E+1	1.29E-1	2.21E+0	7.38E-3	-2.03E+1	1.98E+1
WDP	m3 depriv.	1.54E+0	9.17E-4	2.73E-5	1.54E+0	3.95E-4	5.83E-2	6.43E-5	-1.88E+0	-2.74E-1
PM	disease inc.	1.13E-7	1.76E-9	4.75E-12	1.15E-7	7.57E-10	1.32E-8	5.08E-11	-1.04E-7	2.42E-8
IR	kBq U-235 eq	8.75E-2	1.31E-3	5.32E-7	8.88E-2	5.63E-4	8.56E-3	3.37E-5	-7.69E-2	2.10E-2
ETP-fw	CTUe	1.36E+2	2.43E-1	6.32E-3	1.36E+2	1.05E-1	1.16E+1	1.09E-1	-7.77E+1	7.02E+1
HTP-c	CTUh	1.50E-9	8.63E-12	3.22E-13	1.51E-9	3.72E-12	3.11E-10	2.15E-13	-8.72E-10	9.55E-10
HTP-nc	CTUh	3.55E-8	2.89E-10	8.18E-12	3.58E-8	1.25E-10	5.21E-9	2.11E-11	-2.30E-8	1.82E-8
SQP	Pt	7.15E+1	2.56E-1	1.17E-3	7.18E+1	1.10E-1	1.34E+0	1.88E-2	-1.94E+2	-1.21E+2
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	1.33E+1	4.29E-3	1.26E-2	1.33E+1	1.85E-3	1.21E-1	2.68E-4	-3.46E+1	-2.11E+1
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	1.33E+1	4.29E-3	1.26E-2	1.33E+1	1.85E-3	1.21E-1	2.68E-4	-3.46E+1	-2.11E+1
PENRE	MJ	4.02E+1	3.17E-1	7.55E-4	4.05E+1	1.37E-1	2.35E+0	7.84E-3	-2.17E+1	2.13E+1
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	4.02E+1	3.17E-1	7.55E-4	4.05E+1	1.37E-1	2.35E+0	7.84E-3	-2.17E+1	2.13E+1
PET	MJ	5.35E+1	3.22E-1	1.33E-2	5.39E+1	1.39E-1	2.47E+0	8.10E-3	-5.64E+1	1.34E-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	2.80E-2	3.38E-5	7.63E-7	2.80E-2	1.46E-5	1.80E-3	8.97E-6	-4.10E-2	-1.11E-2

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	7.13E-5	7.64E-7	1.43E-13	7.21E-5	3.29E-7	4.59E-6	9.13E-9	-2.53E-5	5.17E-5
NHWD	kg	2.80E-1	1.85E-2	5.51E-7	2.98E-1	7.98E-3	9.55E-2	3.23E-2	-1.18E-1	3.16E-1
RWD	kg	8.63E-5	2.03E-6	5.73E-14	8.83E-5	8.76E-7	1.07E-5	4.78E-8	-7.30E-5	2.69E-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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