Environmental Profile

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

Ecochain v3.5.80

Product:	3021575 - KANION PVC Running Outlet 100/75 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	6.46E-1	1.30E-2	1.45E-4	6.59E-1	7.45E-3	6.38E-1	2.43E-3	-3.61E-1	9.46E-1
GWP-f	kg CO2 eq	9.05E-1	1.30E-2	1.46E-4	9.18E-1	7.45E-3	3.17E-1	2.43E-3	-4.83E-1	7.62E-1
GWP-b	kg CO2 eq	-2.60E-1	7.90E-6	-1.54E-6	-2.60E-1	4.52E-6	3.21E-1	3.01E-6	1.23E-1	1.84E-1
GWP-luluc	kg CO2 eq	1.45E-3	4.61E-6	1.49E-7	1.45E-3	2.64E-6	9.63E-5	6.44E-8	-1.20E-3	3.52E-4
ODP	kg CFC11 eq	3.43E-7	3.00E-9	8.26E-12	3.46E-7	1.72E-9	2.74E-8	8.92E-11	-1.78E-7	1.97E-7
AP	mol H+ eq	4.44E-3	7.41E-5	1.47E-6	4.52E-3	4.24E-5	5.12E-4	2.18E-6	-2.09E-3	2.98E-3
EP-fw	kg P eq	4.18E-5	1.07E-7	8.24E-9	4.19E-5	6.13E-8	3.25E-6	2.89E-9	-2.45E-5	2.07E-5
EP-m	kg N eq	8.94E-4	2.65E-5	1.55E-7	9.20E-4	1.52E-5	1.36E-4	1.39E-6	-4.26E-4	6.46E-4
EP-T	mol N eq	9.43E-3	2.92E-4	1.85E-6	9.73E-3	1.67E-4	1.49E-3	8.67E-6	-4.74E-3	6.65E-3
POCP	kg NMVOC eq	3.10E-3	8.36E-5	6.28E-7	3.18E-3	4.78E-5	4.44E-4	2.99E-6	-1.52E-3	2.15E-3
ADP-mm	kg Sb eq	6.03E-4	3.37E-7	1.97E-8	6.03E-4	1.93E-7	1.99E-6	2.20E-9	-8.13E-6	5.98E-4
ADP-f	MJ	2.08E+1	2.00E-1	1.36E-3	2.10E+1	1.14E-1	1.31E+0	6.52E-3	-1.05E+1	1.19E+1
WDP	m3 depriv.	1.07E+0	6.13E-4	5.22E-5	1.07E+0	3.51E-4	4.75E-2	4.79E-5	-6.49E-1	4.71E-1
PM	disease inc.	4.16E-8	1.17E-9	9.08E-12	4.28E-8	6.72E-10	6.44E-9	4.49E-11	-2.48E-8	2.52E-8
IR	kBq U-235 eq	4.59E-2	8.73E-4	1.02E-6	4.68E-2	5.00E-4	4.74E-3	2.99E-5	-2.43E-2	2.77E-2
ETP-fw	CTUe	3.45E+1	1.62E-1	1.21E-2	3.46E+1	9.28E-2	9.29E+0	9.98E-2	-1.52E+1	2.89E+1
HTP-c	CTUh	8.91E-10	5.77E-12	6.17E-13	8.98E-10	3.30E-12	1.63E-10	1.84E-13	-3.40E-10	7.24E-10
HTP-nc	CTUh	2.22E-8	1.93E-10	1.57E-11	2.24E-8	1.11E-10	3.46E-9	1.93E-11	-7.49E-9	1.85E-8
SQP	Pt	3.00E+1	1.71E-1	2.24E-3	3.02E+1	9.78E-2	8.10E-1	1.67E-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	2.87E-3	2.40E-2	6.84E+0	1.64E-3	8.91E-2	2.42E-4	-7.19E+0	-2.61E-1
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	6.82E+0	2.87E-3	2.40E-2	6.84E+0	1.64E-3	8.91E-2	2.42E-4	-7.19E+0	-2.61E-1
PENRE	MJ	2.23E+1	2.12E-1	1.44E-3	2.25E+1	1.21E-1	1.39E+0	6.92E-3	-1.13E+1	1.27E+1
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	2.23E+1	2.12E-1	1.44E-3	2.25E+1	1.21E-1	1.39E+0	6.92E-3	-1.13E+1	1.27E+1
PET	MJ	2.91E+1	2.15E-1	2.55E-2	2.93E+1	1.23E-1	1.48E+0	7.16E-3	-1.85E+1	1.25E+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	1.44E-2	2.26E-5	1.46E-6	1.44E-2	1.29E-5	1.35E-3	7.97E-6	-9.84E-3	5.96E-3

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	9.07E-5	5.11E-7	2.73E-13	9.12E-5	2.92E-7	2.29E-6	7.99E-9	-1.15E-5	8.23E-5
NHWD	kg	1.08E-1	1.24E-2	1.05E-6	1.20E-1	7.09E-3	5.28E-2	2.86E-2	-4.57E-2	1.63E-1
RWD	kg	4.38E-5	1.36E-6	1.10E-13	4.52E-5	7.77E-7	5.30E-6	4.24E-8	-2.27E-5	2.86E-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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