Environmental Profile

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

Ecochain v3.5.80

Product:	3021579 - KANION PVC Running Outlet 130/110 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	1.00E+0	2.33E-2	1.45E-4	1.03E+0	1.35E-2	1.17E+0	4.39E-3	-6.51E-1	1.56E+0
GWP-f	kg CO2 eq	1.52E+0	2.33E-2	1.46E-4	1.55E+0	1.35E-2	5.49E-1	4.39E-3	-8.42E-1	1.27E+0
GWP-b	kg CO2 eq	-5.22E-1	1.42E-5	-1.54E-6	-5.22E-1	8.20E-6	6.19E-1	5.44E-6	1.93E-1	2.90E-1
GWP-luluc	kg CO2 eq	2.37E-3	8.25E-6	1.49E-7	2.37E-3	4.78E-6	1.73E-4	1.17E-7	-2.00E-3	5.50E-4
ODP	kg CFC11 eq	6.09E-7	5.37E-9	8.26E-12	6.15E-7	3.11E-9	4.90E-8	1.61E-10	-3.21E-7	3.46E-7
AP	mol H+ eq	7.33E-3	1.33E-4	1.47E-6	7.46E-3	7.69E-5	9.03E-4	3.94E-6	-3.64E-3	4.80E-3
EP-fw	kg P eq	6.83E-5	1.92E-7	8.24E-9	6.85E-5	1.11E-7	5.82E-6	5.24E-9	-4.18E-5	3.27E-5
EP-m	kg N eq	1.45E-3	4.75E-5	1.55E-7	1.50E-3	2.75E-5	2.38E-4	2.48E-6	-7.40E-4	1.03E-3
EP-T	mol N eq	1.55E-2	5.24E-4	1.85E-6	1.60E-2	3.03E-4	2.62E-3	1.57E-5	-8.23E-3	1.07E-2
POCP	kg NMVOC eq	5.10E-3	1.50E-4	6.28E-7	5.25E-3	8.67E-5	7.79E-4	5.41E-6	-2.63E-3	3.49E-3
ADP-mm	kg Sb eq	3.35E-4	6.03E-7	1.97E-8	3.36E-4	3.49E-7	3.51E-6	3.98E-9	-1.46E-5	3.25E-4
ADP-f	MJ	3.58E+1	3.58E-1	1.36E-3	3.62E+1	2.07E-1	2.33E+0	1.18E-2	-1.86E+1	2.02E+1
WDP	m3 depriv.	1.92E+0	1.10E-3	5.22E-5	1.92E+0	6.36E-4	8.57E-2	8.83E-5	-1.14E+0	8.70E-1
PM	disease inc.	6.67E-8	2.11E-9	9.08E-12	6.88E-8	1.22E-9	1.14E-8	8.12E-11	-4.22E-8	3.93E-8
IR	kBq U-235 eq	7.49E-2	1.56E-3	1.02E-6	7.65E-2	9.06E-4	8.41E-3	5.40E-5	-4.28E-2	4.31E-2
ETP-fw	CTUe	5.07E+1	2.91E-1	1.21E-2	5.10E+1	1.68E-1	1.67E+1	1.81E-1	-2.51E+1	4.30E+1
HTP-c	CTUh	1.21E-9	1.03E-11	6.17E-13	1.22E-9	5.99E-12	2.91E-10	3.34E-13	-6.16E-10	9.01E-10
HTP-nc	CTUh	3.21E-8	3.47E-10	1.57E-11	3.24E-8	2.01E-10	6.18E-9	3.49E-11	-1.61E-8	2.28E-8
SQP	Pt	5.70E+1	3.06E-1	2.24E-3	5.73E+1	1.77E-1	1.43E+0	3.01E-2	-7.43E+1	-1.54E+1
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	1.27E+1	5.14E-3	2.40E-2	1.28E+1	2.97E-3	1.60E-1	4.35E-4	-1.26E+1	3.11E-1
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	1.27E+1	5.14E-3	2.40E-2	1.28E+1	2.97E-3	1.60E-1	4.35E-4	-1.26E+1	3.11E-1
PENRE	MJ	3.84E+1	3.80E-1	1.44E-3	3.88E+1	2.20E-1	2.48E+0	1.25E-2	-2.00E+1	2.15E+1
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	3.84E+1	3.80E-1	1.44E-3	3.88E+1	2.20E-1	2.48E+0	1.25E-2	-2.00E+1	2.15E+1
PET	MJ	5.11E+1	3.85E-1	2.55E-2	5.16E+1	2.23E-1	2.64E+0	1.29E-2	-3.26E+1	2.18E+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	2.49E-2	4.05E-5	1.46E-6	2.49E-2	2.34E-5	2.42E-3	1.44E-5	-1.68E-2	1.06E-2

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	6.66E-5	9.16E-7	2.73E-13	6.75E-5	5.30E-7	4.04E-6	1.45E-8	-1.88E-5	5.33E-5
NHWD	kg	1.77E-1	2.22E-2	1.05E-6	1.99E-1	1.28E-2	9.30E-2	5.17E-2	-8.10E-2	2.76E-1
RWD	kg	6.96E-5	2.43E-6	1.10E-13	7.20E-5	1.41E-6	9.35E-6	7.65E-8	-3.99E-5	4.30E-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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