Environmental Profile

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

Ecochain v3.5.80

Product:	3024209 - KANION PVC Stopend int. R 70 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	1.25E-1	2.69E-3	1.45E-4	1.28E-1	1.37E-3	1.50E-1	4.44E-4	-7.19E-2	2.08E-1
GWP-f	kg CO2 eq	1.91E-1	2.69E-3	1.46E-4	1.93E-1	1.37E-3	6.83E-2	4.44E-4	-1.05E-1	1.58E-1
GWP-b	kg CO2 eq	-6.56E-2	1.63E-6	-1.54E-6	-6.56E-2	8.31E-7	8.15E-2	5.44E-7	3.37E-2	4.97E-2
GWP-luluc	kg CO2 eq	3.42E-4	9.52E-7	1.49E-7	3.43E-4	4.84E-7	1.81E-5	1.21E-8	-3.06E-4	5.62E-5
ODP	kg CFC11 eq	6.33E-8	6.20E-10	8.26E-12	6.40E-8	3.15E-10	5.18E-9	1.63E-11	-3.48E-8	3.47E-8
AP	mol H+ eq	9.24E-4	1.53E-5	1.47E-6	9.41E-4	7.80E-6	1.02E-4	3.98E-7	-4.65E-4	5.86E-4
EP-fw	kg P eq	8.75E-6	2.21E-8	8.24E-9	8.78E-6	1.13E-8	6.11E-7	5.39E-10	-5.67E-6	3.73E-6
EP-m	kg N eq	1.94E-4	5.48E-6	1.55E-7	2.00E-4	2.79E-6	2.80E-5	2.40E-7	-9.75E-5	1.33E-4
EP-T	mol N eq	2.05E-3	6.04E-5	1.85E-6	2.11E-3	3.07E-5	3.09E-4	1.58E-6	-1.09E-3	1.36E-3
POCP	kg NMVOC eq	6.69E-4	1.73E-5	6.28E-7	6.87E-4	8.79E-6	9.17E-5	5.46E-7	-3.48E-4	4.40E-4
ADP-mm	kg Sb eq	5.24E-5	6.96E-8	1.97E-8	5.25E-5	3.54E-8	3.96E-7	4.06E-10	-1.59E-6	5.14E-5
ADP-f	MJ	4.28E+0	4.13E-2	1.36E-3	4.32E+0	2.10E-2	2.55E-1	1.19E-3	-2.20E+0	2.40E+0
WDP	m3 depriv.	2.10E-1	1.27E-4	5.22E-5	2.10E-1	6.45E-5	8.73E-3	1.02E-5	-1.38E-1	8.15E-2
PM	disease inc.	9.17E-9	2.43E-10	9.08E-12	9.42E-9	1.24E-10	1.30E-9	8.20E-12	-6.03E-9	4.83E-9
IR	kBq U-235 eq	8.75E-3	1.80E-4	1.02E-6	8.93E-3	9.18E-5	9.33E-4	5.42E-6	-5.30E-3	4.66E-3
ETP-fw	CTUe	7.54E+0	3.35E-2	1.21E-2	7.59E+0	1.71E-2	1.70E+0	1.80E-2	-3.77E+0	5.56E+0
HTP-c	CTUh	1.96E-10	1.19E-12	6.17E-13	1.98E-10	6.07E-13	3.43E-11	3.46E-14	-7.63E-11	1.57E-10
HTP-nc	CTUh	4.33E-9	4.00E-11	1.57E-11	4.39E-9	2.03E-11	6.67E-10	3.48E-12	-1.40E-9	3.67E-9
SQP	Pt	7.46E+0	3.53E-2	2.24E-3	7.50E+0	1.80E-2	1.60E-1	3.04E-3	-1.10E+1	-3.27E+0
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	1.53E+0	5.92E-4	2.40E-2	1.55E+0	3.01E-4	1.68E-2	4.31E-5	-1.87E+0	-2.99E-1
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	1.53E+0	5.92E-4	2.40E-2	1.55E+0	3.01E-4	1.68E-2	4.31E-5	-1.87E+0	-2.99E-1
PENRE	MJ	4.59E+0	4.38E-2	1.44E-3	4.64E+0	2.23E-2	2.71E-1	1.26E-3	-2.37E+0	2.57E+0
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	4.59E+0	4.38E-2	1.44E-3	4.64E+0	2.23E-2	2.71E-1	1.26E-3	-2.37E+0	2.57E+0
PET	MJ	6.12E+0	4.44E-2	2.55E-2	6.19E+0	2.26E-2	2.88E-1	1.31E-3	-4.24E+0	2.27E+0
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	3.02E-3	4.67E-6	1.46E-6	3.02E-3	2.38E-6	2.50E-4	1.45E-6	-2.27E-3	1.01E-3

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	9.87E-6	1.06E-7	2.73E-13	9.98E-6	5.37E-8	4.61E-7	1.47E-9	-2.64E-6	7.85E-6
NHWD	kg	2.46E-2	2.56E-3	1.05E-6	2.71E-2	1.30E-3	1.09E-2	5.21E-3	-1.02E-2	3.43E-2
RWD	kg	8.11E-6	2.81E-7	1.10E-13	8.39E-6	1.43E-7	1.07E-6	7.70E-9	-5.01E-6	4.59E-6
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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