Environmental Profile

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

Ecochain v3.5.80

Ecochain

Product:	3023944 - KANION PVC Reducer 110/75 BN S/S
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

WAVIN An Orbia business.

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	5.01E-1	1.15E-2	2.37E-3	5.15E-1	4.61E-3	3.08E-1	1.53E-3	-2.05E-1	6.24E-1
GWP-f	kg CO2 eq	5.62E-1	1.14E-2	2.39E-3	5.76E-1	4.60E-3	2.00E-1	1.53E-3	-3.00E-1	4.82E-1
GWP-b	kg CO2 eq	-6.17E-2	6.95E-6	-2.53E-5	-6.17E-2	2.79E-6	1.09E-1	1.81E-6	9.52E-2	1.42E-1
GWP-luluc	kg CO2 eq	9.37E-4	4.05E-6	2.45E-6	9.44E-4	1.63E-6	5.76E-5	4.33E-8	-8.31E-4	1.72E-4
ODP	kg CFC11 eq	1.99E-7	2.64E-9	1.35E-10	2.01E-7	1.06E-9	1.62E-8	5.48E-11	-1.11E-7	1.07E-7
AP	mol H+ eq	2.73E-3	6.52E-5	2.41E-5	2.82E-3	2.62E-5	3.12E-4	1.35E-6	-1.30E-3	1.86E-3
EP-fw	kg P eq	2.53E-5	9.42E-8	1.35E-7	2.55E-5	3.79E-8	1.93E-6	1.89E-9	-1.62E-5	1.13E-5
EP-m	kg N eq	5.49E-4	2.33E-5	2.54E-6	5.75E-4	9.38E-6	8.42E-5	7.91E-7	-2.61E-4	4.08E-4
EP-T	mol N eq	5.85E-3	2.57E-4	3.04E-5	6.14E-3	1.03E-4	9.26E-4	5.35E-6	-2.90E-3	4.27E-3
POCP	kg NMVOC eq	1.84E-3	7.35E-5	1.03E-5	1.92E-3	2.96E-5	2.77E-4	1.85E-6	-8.97E-4	1.34E-3
ADP-mm	kg Sb eq	2.31E-4	2.96E-7	3.22E-7	2.32E-4	1.19E-7	1.22E-6	1.40E-9	-4.84E-6	2.28E-4
ADP-f	MJ	1.27E+1	1.76E-1	2.22E-2	1.29E+1	7.07E-2	8.01E-1	4.02E-3	-6.52E+0	7.30E+0
WDP	m3 depriv.	6.49E-1	5.39E-4	8.54E-4	6.50E-1	2.17E-4	2.79E-2	4.32E-5	-4.28E-1	2.50E-1
PM	disease inc.	2.44E-8	1.03E-9	1.49E-10	2.56E-8	4.15E-10	4.02E-9	2.77E-11	-1.53E-8	1.47E-8
IR	kBq U-235 eq	2.60E-2	7.68E-4	1.67E-5	2.68E-2	3.09E-4	2.89E-3	1.82E-5	-1.57E-2	1.43E-2
ETP-fw	CTUe	2.23E+1	1.43E-1	1.98E-1	2.26E+1	5.74E-2	5.37E+0	5.71E-2	-1.04E+1	1.77E+1
HTP-c	CTUh	4.77E-10	5.08E-12	1.01E-11	4.93E-10	2.04E-12	1.10E-10	1.23E-13	-1.87E-10	4.18E-10
HTP-nc	CTUh	1.26E-8	1.70E-10	2.56E-10	1.30E-8	6.84E-11	2.10E-9	1.12E-11	-5.18E-9	9.98E-9
SQP	Pt	1.11E+1	1.50E-1	3.67E-2	1.13E+1	6.04E-2	5.00E-1	1.02E-2	-2.25E+1	-1.06E+1

Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	3.52E+0	2.52E-3	3.93E-1	3.91E+0	1.01E-3	5.31E-2	1.41E-4	-4.05E+0	-8.09E-2
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	3.52E+0	2.52E-3	3.93E-1	3.91E+0	1.01E-3	5.31E-2	1.41E-4	-4.05E+0	-8.09E-2
PENRE	MJ	1.37E+1	1.87E-1	2.36E-2	1.39E+1	7.50E-2	8.53E-1	4.27E-3	-7.02E+0	7.80E+0
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	1.37E+1	1.87E-1	2.36E-2	1.39E+1	7.50E-2	8.53E-1	4.27E-3	-7.02E+0	7.80E+0
PET	MJ	1.72E+1	1.89E-1	4.17E-1	1.78E+1	7.60E-2	9.06E-1	4.41E-3	-1.11E+1	7.72E+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	9.07E-3	1.99E-5	2.39E-5	9.11E-3	7.99E-6	7.89E-4	4.84E-6	-6.72E-3	3.19E-3

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	3.80E-5	4.49E-7	4.47E-12	3.84E-5	1.81E-7	1.42E-6	5.05E-9	-6.66E-6	3.34E-5
NHWD	kg	6.57E-2	1.09E-2	1.73E-5	7.66E-2	4.38E-3	3.31E-2	1.75E-2	-2.59E-2	1.06E-1
RWD	kg	2.39E-5	1.20E-6	1.79E-12	2.51E-5	4.80E-7	3.27E-6	2.59E-8	-1.45E-5	1.44E-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