

Environmental Profile

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

Ecochain v3.5.80



Product: 3024170 - KANION PVC Reducer 110/75 Graphite S/S
 Unit: 1 piece
 Manufacturer: Wavin - PL -Buk - Extra products

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



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.

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]

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Results

Environmental impact	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
GWP-total	kg CO2 eq	5.26E-1	1.09E-2	2.96E-3	5.40E-1	4.55E-3	3.07E-1	1.51E-3	-2.02E-1	6.52E-1
GWP-f	kg CO2 eq	5.86E-1	1.09E-2	2.99E-3	6.00E-1	4.55E-3	1.99E-1	1.51E-3	-2.96E-1	5.09E-1
GWP-b	kg CO2 eq	-6.10E-2	6.61E-6	-3.16E-5	-6.10E-2	2.76E-6	1.09E-1	1.79E-6	9.53E-2	1.43E-1
GWP-luluc	kg CO2 eq	9.94E-4	3.85E-6	3.06E-6	1.00E-3	1.61E-6	5.71E-5	4.26E-8	-8.30E-4	2.30E-4
ODP	kg CFC11 eq	1.94E-7	2.51E-9	1.69E-10	1.97E-7	1.05E-9	1.60E-8	5.42E-11	-1.10E-7	1.04E-7
AP	mol H+ eq	2.97E-3	6.20E-5	3.02E-5	3.06E-3	2.59E-5	3.10E-4	1.34E-6	-1.29E-3	2.11E-3
EP-fw	kg P eq	2.76E-5	8.95E-8	1.69E-7	2.79E-5	3.74E-8	1.92E-6	1.86E-9	-1.61E-5	1.37E-5
EP-m	kg N eq	5.98E-4	2.22E-5	3.17E-6	6.23E-4	9.27E-6	8.36E-5	7.83E-7	-2.60E-4	4.57E-4
EP-T	mol N eq	6.35E-3	2.44E-4	3.79E-5	6.63E-3	1.02E-4	9.20E-4	5.29E-6	-2.88E-3	4.78E-3
POCP	kg NMVOC eq	1.97E-3	6.99E-5	1.28E-5	2.05E-3	2.92E-5	2.75E-4	1.83E-6	-8.90E-4	1.47E-3
ADP-mm	kg Sb eq	6.88E-4	2.81E-7	4.02E-7	6.89E-4	1.18E-7	1.22E-6	1.38E-9	-4.80E-6	6.85E-4
ADP-f	MJ	1.26E+1	1.67E-1	2.78E-2	1.28E+1	6.98E-2	7.95E-1	3.97E-3	-6.44E+0	7.23E+0
WDP	m3 depriv.	6.52E-1	5.12E-4	1.07E-3	6.53E-1	2.14E-4	2.77E-2	4.20E-5	-4.25E-1	2.56E-1
PM	disease inc.	2.55E-8	9.82E-10	1.86E-10	2.66E-8	4.11E-10	3.99E-9	2.74E-11	-1.52E-8	1.58E-8
IR	kBq U-235 eq	2.73E-2	7.30E-4	2.08E-5	2.81E-2	3.05E-4	2.87E-3	1.80E-5	-1.56E-2	1.57E-2
ETP-fw	CTUe	2.64E+1	1.36E-1	2.47E-1	2.67E+1	5.67E-2	5.34E+0	5.67E-2	-1.04E+1	2.18E+1
HTP-c	CTUh	5.61E-10	4.83E-12	1.26E-11	5.79E-10	2.02E-12	1.09E-10	1.21E-13	-1.86E-10	5.04E-10
HTP-nc	CTUh	1.54E-8	1.62E-10	3.20E-10	1.59E-8	6.76E-11	2.08E-9	1.11E-11	-5.14E-9	1.29E-8
SQP	Pt	1.13E+1	1.43E-1	4.58E-2	1.14E+1	5.98E-2	4.95E-1	1.01E-2	-2.25E+1	-1.05E+1
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	3.55E+0	2.40E-3	4.92E-1	4.04E+0	1.00E-3	5.27E-2	1.40E-4	-4.05E+0	4.76E-2
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	3.55E+0	2.40E-3	4.92E-1	4.04E+0	1.00E-3	5.27E-2	1.40E-4	-4.05E+0	4.76E-2
PENRE	MJ	1.35E+1	1.77E-1	2.96E-2	1.37E+1	7.41E-2	8.45E-1	4.22E-3	-6.93E+0	7.73E+0
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	1.35E+1	1.77E-1	2.96E-2	1.37E+1	7.41E-2	8.45E-1	4.22E-3	-6.93E+0	7.73E+0
PET	MJ	1.71E+1	1.80E-1	5.21E-1	1.78E+1	7.52E-2	8.98E-1	4.36E-3	-1.10E+1	7.78E+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	9.48E-3	1.89E-5	2.99E-5	9.53E-3	7.90E-6	7.83E-4	4.79E-6	-6.69E-3	3.64E-3

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	9.58E-5	4.27E-7	5.59E-12	9.62E-5	1.79E-7	1.41E-6	4.98E-9	-6.59E-6	9.12E-5
NHWD	kg	6.83E-2	1.04E-2	2.16E-5	7.87E-2	4.33E-3	3.29E-2	1.73E-2	-2.57E-2	1.08E-1
RWD	kg	2.48E-5	1.14E-6	2.24E-12	2.59E-5	4.75E-7	3.25E-6	2.56E-8	-1.44E-5	1.53E-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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