

Environmental Profile

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

Ecochain v3.5.80



Product: 3023945 - KANION PVC Reducer 110/90 BN 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	☑	☑	☑	☑									

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	5.22E-1	1.25E-2	9.12E-3	5.44E-1	5.05E-3	3.13E-1	1.68E-3	-2.29E-1	6.35E-1
GWP-f	kg CO2 eq	5.82E-1	1.25E-2	9.21E-3	6.04E-1	5.05E-3	2.10E-1	1.68E-3	-3.10E-1	5.11E-1
GWP-b	kg CO2 eq	-6.13E-2	7.59E-6	-9.71E-5	-6.14E-2	3.07E-6	1.03E-1	1.99E-6	8.20E-2	1.24E-1
GWP-luluc	kg CO2 eq	8.89E-4	4.42E-6	9.41E-6	9.03E-4	1.79E-6	6.24E-5	4.77E-8	-7.53E-4	2.14E-4
ODP	kg CFC11 eq	2.14E-7	2.88E-9	5.20E-10	2.18E-7	1.16E-9	1.73E-8	6.01E-11	-1.20E-7	1.16E-7
AP	mol H+ eq	2.81E-3	7.12E-5	9.29E-5	2.97E-3	2.88E-5	3.29E-4	1.49E-6	-1.31E-3	2.03E-3
EP-fw	kg P eq	2.58E-5	1.03E-7	5.19E-7	2.64E-5	4.16E-8	2.09E-6	2.08E-9	-1.57E-5	1.28E-5
EP-m	kg N eq	5.51E-4	2.55E-5	9.77E-6	5.86E-4	1.03E-5	8.74E-5	8.67E-7	-2.59E-4	4.26E-4
EP-T	mol N eq	5.90E-3	2.81E-4	1.17E-4	6.29E-3	1.13E-4	9.62E-4	5.87E-6	-2.86E-3	4.52E-3
POCP	kg NMVOC eq	1.88E-3	8.03E-5	3.95E-5	2.00E-3	3.24E-5	2.88E-4	2.04E-6	-8.95E-4	1.43E-3
ADP-mm	kg Sb eq	2.56E-4	3.23E-7	1.24E-6	2.57E-4	1.31E-7	1.29E-6	1.54E-9	-5.15E-6	2.54E-4
ADP-f	MJ	1.34E+1	1.92E-1	8.54E-2	1.37E+1	7.75E-2	8.55E-1	4.41E-3	-6.85E+0	7.78E+0
WDP	m3 depriv.	6.96E-1	5.89E-4	3.29E-3	7.00E-1	2.38E-4	3.03E-2	4.78E-5	-4.37E-1	2.93E-1
PM	disease inc.	2.42E-8	1.13E-9	5.72E-10	2.59E-8	4.56E-10	4.21E-9	3.04E-11	-1.44E-8	1.61E-8
IR	kBq U-235 eq	2.71E-2	8.39E-4	6.41E-5	2.80E-2	3.39E-4	3.06E-3	1.99E-5	-1.58E-2	1.57E-2
ETP-fw	CTUe	2.13E+1	1.56E-1	7.61E-1	2.22E+1	6.29E-2	5.83E+0	6.25E-2	-9.68E+0	1.85E+1
HTP-c	CTUh	4.72E-10	5.54E-12	3.88E-11	5.16E-10	2.24E-12	1.17E-10	1.35E-13	-1.90E-10	4.46E-10
HTP-nc	CTUh	1.29E-8	1.86E-10	9.86E-10	1.41E-8	7.50E-11	2.25E-9	1.23E-11	-5.53E-9	1.09E-8
SQP	Pt	1.07E+1	1.64E-1	1.41E-1	1.10E+1	6.63E-2	5.33E-1	1.12E-2	-2.02E+1	-8.60E+0
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	3.44E+0	2.75E-3	1.51E+0	4.96E+0	1.11E-3	5.74E-2	1.54E-4	-3.64E+0	1.38E+0
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	3.44E+0	2.75E-3	1.51E+0	4.96E+0	1.11E-3	5.74E-2	1.54E-4	-3.64E+0	1.38E+0
PENRE	MJ	1.44E+1	2.04E-1	9.09E-2	1.47E+1	8.23E-2	9.09E-1	4.68E-3	-7.38E+0	8.30E+0
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	1.44E+1	2.04E-1	9.09E-2	1.47E+1	8.23E-2	9.09E-1	4.68E-3	-7.38E+0	8.30E+0
PET	MJ	1.78E+1	2.06E-1	1.60E+0	1.96E+1	8.34E-2	9.67E-1	4.84E-3	-1.10E+1	9.68E+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	9.49E-3	2.17E-5	9.19E-5	9.60E-3	8.77E-6	8.54E-4	5.31E-6	-6.51E-3	3.96E-3

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	4.13E-5	4.91E-7	1.72E-11	4.18E-5	1.98E-7	1.49E-6	5.54E-9	-6.72E-6	3.67E-5
NHWD	kg	6.51E-2	1.19E-2	6.64E-5	7.71E-2	4.80E-3	3.50E-2	1.92E-2	-2.62E-2	1.10E-1
RWD	kg	2.49E-5	1.30E-6	6.90E-12	2.62E-5	5.27E-7	3.43E-6	2.84E-8	-1.45E-5	1.57E-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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