

Environmental Profile

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

Ecochain v3.5.80



Product: 3021596 - KANION PVC Socket Bend 90x67 Graph. S/PL
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					Use stage							End-of-Life stage				
A1 Raw material supply A2 Transport A3 Manufacturing					B1 Use B2 Maintenance B3 Repair B4 Replacement B5 Refurbishment B6 Operational energy use B7 Operational water use							C1 De-construction demolition C2 Transport C3 Waste processing C4 Disposal				
Construction process stage					Benefits and loads beyond the system boundaries											
A4 Transport gate to site A5 Assembly / Construction installation process					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

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Results

Environmental impact	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
GWP-total	kg CO2 eq	3.88E-1	6.23E-3	1.45E-4	3.94E-1	4.55E-3	2.88E-1	1.46E-3	-2.16E-1	4.72E-1
GWP-f	kg CO2 eq	4.84E-1	6.22E-3	1.46E-4	4.90E-1	4.55E-3	1.70E-1	1.46E-3	-2.56E-1	4.10E-1
GWP-b	kg CO2 eq	-9.61E-2	3.78E-6	-1.54E-6	-9.61E-2	2.76E-6	1.18E-1	1.82E-6	4.04E-2	6.23E-2
GWP-luluc	kg CO2 eq	6.40E-4	2.20E-6	1.49E-7	6.43E-4	1.61E-6	5.79E-5	3.93E-8	-4.63E-4	2.39E-4
ODP	kg CFC11 eq	1.98E-7	1.43E-9	8.26E-12	1.99E-7	1.05E-9	1.62E-8	5.40E-11	-1.05E-7	1.12E-7
AP	mol H+ eq	2.37E-3	3.55E-5	1.47E-6	2.40E-3	2.59E-5	2.90E-4	1.32E-6	-1.05E-3	1.67E-3
EP-fw	kg P eq	2.21E-5	5.12E-8	8.24E-9	2.22E-5	3.74E-8	1.94E-6	1.76E-9	-1.16E-5	1.26E-5
EP-m	kg N eq	4.48E-4	1.27E-5	1.55E-7	4.61E-4	9.27E-6	7.44E-5	8.04E-7	-2.04E-4	3.41E-4
EP-T	mol N eq	4.79E-3	1.40E-4	1.85E-6	4.93E-3	1.02E-4	8.20E-4	5.25E-6	-2.25E-3	3.61E-3
POCP	kg NMVOC eq	1.58E-3	4.00E-5	6.28E-7	1.62E-3	2.92E-5	2.44E-4	1.81E-6	-7.40E-4	1.15E-3
ADP-mm	kg Sb eq	3.49E-4	1.61E-7	1.97E-8	3.49E-4	1.18E-7	1.13E-6	1.33E-9	-4.50E-6	3.46E-4
ADP-f	MJ	1.11E+1	9.55E-2	1.36E-3	1.12E+1	6.98E-2	7.62E-1	3.95E-3	-5.75E+0	6.30E+0
WDP	m3 depriv.	6.32E-1	2.93E-4	5.22E-5	6.32E-1	2.14E-4	2.87E-2	3.04E-5	-3.46E-1	3.14E-1
PM	disease inc.	1.94E-8	5.62E-10	9.08E-12	2.00E-8	4.11E-10	3.63E-9	2.72E-11	-1.06E-8	1.34E-8
IR	kBq U-235 eq	2.37E-2	4.18E-4	1.02E-6	2.41E-2	3.05E-4	2.73E-3	1.81E-5	-1.23E-2	1.48E-2
ETP-fw	CTUe	1.59E+1	7.76E-2	1.21E-2	1.60E+1	5.67E-2	5.61E+0	6.10E-2	-6.37E+0	1.53E+1
HTP-c	CTUh	4.51E-10	2.76E-12	6.17E-13	4.55E-10	2.02E-12	9.35E-11	1.12E-13	-1.65E-10	3.85E-10
HTP-nc	CTUh	1.22E-8	9.25E-11	1.57E-11	1.23E-8	6.76E-11	2.04E-9	1.18E-11	-4.16E-9	1.02E-8
SQP	Pt	1.15E+1	8.17E-2	2.24E-3	1.16E+1	5.98E-2	4.71E-1	1.01E-2	-1.50E+1	-2.84E+0
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	3.03E+0	1.37E-3	2.40E-2	3.06E+0	1.00E-3	5.33E-2	1.45E-4	-2.61E+0	5.02E-1
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	3.03E+0	1.37E-3	2.40E-2	3.06E+0	1.00E-3	5.33E-2	1.45E-4	-2.61E+0	5.02E-1
PENRE	MJ	1.19E+1	1.01E-1	1.44E-3	1.20E+1	7.41E-2	8.11E-1	4.19E-3	-6.20E+0	6.73E+0
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	1.19E+1	1.01E-1	1.44E-3	1.20E+1	7.41E-2	8.11E-1	4.19E-3	-6.20E+0	6.73E+0
PET	MJ	1.50E+1	1.03E-1	2.55E-2	1.51E+1	7.52E-2	8.64E-1	4.33E-3	-8.81E+0	7.23E+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	8.04E-3	1.08E-5	1.46E-6	8.05E-3	7.90E-6	7.99E-4	4.81E-6	-4.65E-3	4.21E-3

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	5.19E-5	2.44E-7	2.73E-13	5.22E-5	1.79E-7	1.29E-6	4.85E-9	-5.78E-6	4.79E-5
NHWD	kg	5.45E-2	5.92E-3	1.05E-6	6.04E-2	4.33E-3	2.98E-2	1.73E-2	-2.26E-2	8.93E-2
RWD	kg	2.12E-5	6.50E-7	1.10E-13	2.19E-5	4.75E-7	2.99E-6	2.56E-8	-1.13E-5	1.40E-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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