

Environmental Profile

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

Ecochain v3.5.80



Product: 3024199 - KANION PVC Socket Bend 90x88 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	4.35E-1	7.23E-3	1.45E-4	4.42E-1	5.03E-3	3.06E-1	1.62E-3	-2.39E-1	5.16E-1
GWP-f	kg CO2 eq	5.30E-1	7.22E-3	1.46E-4	5.37E-1	5.02E-3	1.88E-1	1.62E-3	-2.79E-1	4.53E-1
GWP-b	kg CO2 eq	-9.57E-2	4.39E-6	-1.54E-6	-9.57E-2	3.05E-6	1.18E-1	2.00E-6	4.02E-2	6.26E-2
GWP-luluc	kg CO2 eq	6.86E-4	2.56E-6	1.49E-7	6.89E-4	1.78E-6	6.34E-5	4.38E-8	-4.76E-4	2.78E-4
ODP	kg CFC11 eq	2.17E-7	1.66E-9	8.26E-12	2.18E-7	1.16E-9	1.76E-8	5.96E-11	-1.15E-7	1.22E-7
AP	mol H+ eq	2.61E-3	4.11E-5	1.47E-6	2.65E-3	2.86E-5	3.17E-4	1.46E-6	-1.13E-3	1.87E-3
EP-fw	kg P eq	2.43E-5	5.94E-8	8.24E-9	2.44E-5	4.13E-8	2.13E-6	1.96E-9	-1.23E-5	1.42E-5
EP-m	kg N eq	4.89E-4	1.47E-5	1.55E-7	5.04E-4	1.02E-5	8.10E-5	8.85E-7	-2.18E-4	3.77E-4
EP-T	mol N eq	5.26E-3	1.62E-4	1.85E-6	5.43E-3	1.13E-4	8.92E-4	5.80E-6	-2.40E-3	4.04E-3
POCP	kg NMVOC eq	1.73E-3	4.64E-5	6.28E-7	1.77E-3	3.23E-5	2.66E-4	2.00E-6	-7.92E-4	1.28E-3
ADP-mm	kg Sb eq	4.47E-4	1.87E-7	1.97E-8	4.47E-4	1.30E-7	1.24E-6	1.48E-9	-4.92E-6	4.43E-4
ADP-f	MJ	1.22E+1	1.11E-1	1.36E-3	1.23E+1	7.71E-2	8.34E-1	4.36E-3	-6.30E+0	6.92E+0
WDP	m3 depriv.	6.95E-1	3.40E-4	5.22E-5	6.95E-1	2.37E-4	3.14E-2	3.51E-5	-3.76E-1	3.51E-1
PM	disease inc.	2.10E-8	6.52E-10	9.08E-12	2.16E-8	4.53E-10	3.96E-9	3.00E-11	-1.11E-8	1.50E-8
IR	kBq U-235 eq	2.61E-2	4.85E-4	1.02E-6	2.65E-2	3.37E-4	2.98E-3	1.99E-5	-1.33E-2	1.66E-2
ETP-fw	CTUe	1.76E+1	9.00E-2	1.21E-2	1.77E+1	6.26E-2	6.13E+0	6.68E-2	-6.66E+0	1.73E+1
HTP-c	CTUh	5.04E-10	3.20E-12	6.17E-13	5.08E-10	2.23E-12	1.03E-10	1.25E-13	-1.76E-10	4.38E-10
HTP-nc	CTUh	1.38E-8	1.07E-10	1.57E-11	1.39E-8	7.46E-11	2.23E-9	1.29E-11	-4.53E-9	1.17E-8
SQP	Pt	1.17E+1	9.48E-2	2.24E-3	1.18E+1	6.60E-2	5.16E-1	1.11E-2	-1.51E+1	-2.62E+0
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	3.35E+0	1.59E-3	2.40E-2	3.37E+0	1.11E-3	5.84E-2	1.59E-4	-2.63E+0	7.99E-1
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	3.35E+0	1.59E-3	2.40E-2	3.37E+0	1.11E-3	5.84E-2	1.59E-4	-2.63E+0	7.99E-1
PENRE	MJ	1.31E+1	1.18E-1	1.44E-3	1.32E+1	8.19E-2	8.87E-1	4.63E-3	-6.79E+0	7.39E+0
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	1.31E+1	1.18E-1	1.44E-3	1.32E+1	8.19E-2	8.87E-1	4.63E-3	-6.79E+0	7.39E+0
PET	MJ	1.64E+1	1.19E-1	2.55E-2	1.66E+1	8.30E-2	9.46E-1	4.79E-3	-9.42E+0	8.19E+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	8.88E-3	1.25E-5	1.46E-6	8.90E-3	8.73E-6	8.74E-4	5.31E-6	-4.96E-3	4.83E-3

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	6.49E-5	2.84E-7	2.73E-13	6.52E-5	1.97E-7	1.41E-6	5.37E-9	-6.25E-6	6.06E-5
NHWD	kg	5.94E-2	6.87E-3	1.05E-6	6.63E-2	4.78E-3	3.27E-2	1.91E-2	-2.41E-2	9.88E-2
RWD	kg	2.32E-5	7.54E-7	1.10E-13	2.40E-5	5.24E-7	3.26E-6	2.83E-8	-1.22E-5	1.56E-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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