

Environmental Profile

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

Ecochain v3.5.80



Product: 3024048 - KANION PVC Socket Bend 90x88 Graph. 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



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	5.37E-1	8.44E-3	1.45E-4	5.45E-1	6.27E-3	3.40E-1	2.02E-3	-2.92E-1	6.02E-1
GWP-f	kg CO2 eq	6.31E-1	8.43E-3	1.46E-4	6.39E-1	6.26E-3	2.22E-1	2.02E-3	-3.31E-1	5.38E-1
GWP-b	kg CO2 eq	-9.46E-2	5.12E-6	-1.54E-6	-9.46E-2	3.80E-6	1.18E-1	2.50E-6	3.99E-2	6.33E-2
GWP-luluc	kg CO2 eq	7.72E-4	2.98E-6	1.49E-7	7.75E-4	2.22E-6	7.88E-5	5.44E-8	-5.10E-4	3.46E-4
ODP	kg CFC11 eq	2.68E-7	1.94E-9	8.26E-12	2.70E-7	1.44E-9	2.19E-8	7.43E-11	-1.42E-7	1.52E-7
AP	mol H+ eq	3.10E-3	4.80E-5	1.47E-6	3.15E-3	3.57E-5	3.87E-4	1.82E-6	-1.33E-3	2.24E-3
EP-fw	kg P eq	2.89E-5	6.94E-8	8.24E-9	2.90E-5	5.15E-8	2.64E-6	2.43E-9	-1.43E-5	1.74E-5
EP-m	kg N eq	5.71E-4	1.72E-5	1.55E-7	5.88E-4	1.28E-5	9.79E-5	1.10E-6	-2.53E-4	4.47E-4
EP-T	mol N eq	6.16E-3	1.89E-4	1.85E-6	6.35E-3	1.41E-4	1.08E-3	7.22E-6	-2.76E-3	4.81E-3
POCP	kg NMVOC eq	2.02E-3	5.41E-5	6.28E-7	2.08E-3	4.02E-5	3.22E-4	2.49E-6	-9.19E-4	1.52E-3
ADP-mm	kg Sb eq	5.46E-4	2.18E-7	1.97E-8	5.46E-4	1.62E-7	1.52E-6	1.84E-9	-6.00E-6	5.42E-4
ADP-f	MJ	1.46E+1	1.29E-1	1.36E-3	1.47E+1	9.61E-2	1.03E+0	5.43E-3	-7.57E+0	8.30E+0
WDP	m3 depriv.	8.53E-1	3.97E-4	5.22E-5	8.53E-1	2.95E-4	3.92E-2	4.29E-5	-4.52E-1	4.41E-1
PM	disease inc.	2.41E-8	7.61E-10	9.08E-12	2.49E-8	5.65E-10	4.83E-9	3.74E-11	-1.24E-8	1.79E-8
IR	kBq U-235 eq	3.14E-2	5.66E-4	1.02E-6	3.20E-2	4.20E-4	3.65E-3	2.48E-5	-1.58E-2	2.03E-2
ETP-fw	CTUe	2.02E+1	1.05E-1	1.21E-2	2.03E+1	7.80E-2	7.64E+0	8.36E-2	-7.39E+0	2.07E+1
HTP-c	CTUh	5.93E-10	3.74E-12	6.17E-13	5.97E-10	2.78E-12	1.25E-10	1.55E-13	-2.04E-10	5.22E-10
HTP-nc	CTUh	1.66E-8	1.25E-10	1.57E-11	1.67E-8	9.30E-11	2.76E-9	1.61E-11	-5.50E-9	1.41E-8
SQP	Pt	1.21E+1	1.11E-1	2.24E-3	1.22E+1	8.22E-2	6.34E-1	1.39E-2	-1.52E+1	-2.25E+0
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	3.78E+0	1.86E-3	2.40E-2	3.81E+0	1.38E-3	7.25E-2	1.99E-4	-2.69E+0	1.19E+0
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	3.78E+0	1.86E-3	2.40E-2	3.81E+0	1.38E-3	7.25E-2	1.99E-4	-2.69E+0	1.19E+0
PENRE	MJ	1.57E+1	1.37E-1	1.44E-3	1.58E+1	1.02E-1	1.09E+0	5.77E-3	-8.16E+0	8.86E+0
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	1.57E+1	1.37E-1	1.44E-3	1.58E+1	1.02E-1	1.09E+0	5.77E-3	-8.16E+0	8.86E+0
PET	MJ	1.95E+1	1.39E-1	2.55E-2	1.96E+1	1.03E-1	1.16E+0	5.97E-3	-1.08E+1	1.01E+1
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	1.07E-2	1.46E-5	1.46E-6	1.07E-2	1.09E-5	1.09E-3	6.62E-6	-5.75E-3	6.02E-3

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	7.91E-5	3.31E-7	2.73E-13	7.94E-5	2.46E-7	1.72E-6	6.68E-9	-7.30E-6	7.41E-5
NHWD	kg	6.93E-2	8.02E-3	1.05E-6	7.73E-2	5.96E-3	3.97E-2	2.38E-2	-2.82E-2	1.19E-1
RWD	kg	2.79E-5	8.80E-7	1.10E-13	2.88E-5	6.54E-7	3.98E-6	3.52E-8	-1.44E-5	1.91E-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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