

Environmental Profile

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

Ecochain v3.5.80



Product: 3023393 - KANION PVC Socket Bend 110x67 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	6.00E-1	1.05E-2	1.45E-4	6.10E-1	7.40E-3	5.01E-1	2.38E-3	-3.52E-1	7.69E-1
GWP-f	kg CO2 eq	7.92E-1	1.05E-2	1.46E-4	8.03E-1	7.39E-3	2.69E-1	2.38E-3	-4.22E-1	6.59E-1
GWP-b	kg CO2 eq	-1.93E-1	6.37E-6	-1.54E-6	-1.93E-1	4.49E-6	2.32E-1	2.95E-6	7.14E-2	1.10E-1
GWP-luluc	kg CO2 eq	1.10E-3	3.71E-6	1.49E-7	1.10E-3	2.62E-6	9.44E-5	6.38E-8	-8.07E-4	3.89E-4
ODP	kg CFC11 eq	3.24E-7	2.42E-9	8.26E-12	3.26E-7	1.70E-9	2.64E-8	8.77E-11	-1.71E-7	1.83E-7
AP	mol H+ eq	3.90E-3	5.97E-5	1.47E-6	3.96E-3	4.21E-5	4.77E-4	2.14E-6	-1.78E-3	2.70E-3
EP-fw	kg P eq	3.68E-5	8.63E-8	8.24E-9	3.69E-5	6.08E-8	3.17E-6	2.86E-9	-1.96E-5	2.05E-5
EP-m	kg N eq	7.46E-4	2.14E-5	1.55E-7	7.68E-4	1.51E-5	1.23E-4	1.31E-6	-3.49E-4	5.58E-4
EP-T	mol N eq	8.00E-3	2.36E-4	1.85E-6	8.23E-3	1.66E-4	1.35E-3	8.52E-6	-3.85E-3	5.91E-3
POCP	kg NMVOC eq	2.62E-3	6.73E-5	6.28E-7	2.68E-3	4.75E-5	4.02E-4	2.94E-6	-1.27E-3	1.86E-3
ADP-mm	kg Sb eq	5.98E-4	2.71E-7	1.97E-8	5.98E-4	1.91E-7	1.87E-6	2.17E-9	-7.44E-6	5.93E-4
ADP-f	MJ	1.81E+1	1.61E-1	1.36E-3	1.82E+1	1.13E-1	1.25E+0	6.41E-3	-9.43E+0	1.02E+1
WDP	m3 depriv.	1.03E+0	4.94E-4	5.22E-5	1.03E+0	3.48E-4	4.67E-2	4.93E-5	-5.73E-1	5.01E-1
PM	disease inc.	3.29E-8	9.47E-10	9.08E-12	3.39E-8	6.67E-10	5.98E-9	4.42E-11	-1.86E-8	2.19E-8
IR	kBq U-235 eq	3.91E-2	7.04E-4	1.02E-6	3.98E-2	4.96E-4	4.48E-3	2.93E-5	-2.06E-2	2.43E-2
ETP-fw	CTUe	2.72E+1	1.31E-1	1.21E-2	2.73E+1	9.21E-2	9.13E+0	9.92E-2	-1.10E+1	2.56E+1
HTP-c	CTUh	8.27E-10	4.65E-12	6.17E-13	8.32E-10	3.28E-12	1.53E-10	1.82E-13	-2.85E-10	7.03E-10
HTP-nc	CTUh	2.10E-8	1.56E-10	1.57E-11	2.12E-8	1.10E-10	3.33E-9	1.91E-11	-6.28E-9	1.84E-8
SQP	Pt	2.21E+1	1.38E-1	2.24E-3	2.23E+1	9.71E-2	7.74E-1	1.64E-2	-2.80E+1	-4.88E+0
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	5.53E+0	2.31E-3	2.40E-2	5.55E+0	1.63E-3	8.71E-2	2.35E-4	-4.82E+0	8.21E-1
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	5.53E+0	2.31E-3	2.40E-2	5.55E+0	1.63E-3	8.71E-2	2.35E-4	-4.82E+0	8.21E-1
PENRE	MJ	1.94E+1	1.71E-1	1.44E-3	1.95E+1	1.20E-1	1.33E+0	6.81E-3	-1.01E+1	1.09E+1
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	1.94E+1	1.71E-1	1.44E-3	1.95E+1	1.20E-1	1.33E+0	6.81E-3	-1.01E+1	1.09E+1
PET	MJ	2.49E+1	1.73E-1	2.55E-2	2.51E+1	1.22E-1	1.42E+0	7.04E-3	-1.50E+1	1.17E+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	1.31E-2	1.82E-5	1.46E-6	1.31E-2	1.28E-5	1.30E-3	7.82E-6	-7.81E-3	6.63E-3

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	8.90E-5	4.12E-7	2.73E-13	8.94E-5	2.90E-7	2.13E-6	7.88E-9	-1.00E-5	8.18E-5
NHWD	kg	9.39E-2	9.98E-3	1.05E-6	1.04E-1	7.03E-3	4.87E-2	2.81E-2	-3.89E-2	1.49E-1
RWD	kg	3.52E-5	1.09E-6	1.10E-13	3.63E-5	7.72E-7	4.93E-6	4.16E-8	-1.90E-5	2.30E-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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