

Environmental Profile

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

Ecochain v3.5.80



Product: 3021505 - KANION PVC Socket Bend 90x67 Graph. 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]

Statement of Confidentiality

This document and supporting material contain confidential and proprietary business information of Wavin - PL -Buk - Extra products. These materials may be printed or (photo) copied or otherwise used only with the written consent of Wavin - PL -Buk - Extra products.

Results

Environmental impact	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
GWP-total	kg CO2 eq	5.12E-1	7.72E-3	1.45E-4	5.20E-1	6.11E-3	3.28E-1	1.96E-3	-2.80E-1	5.76E-1
GWP-f	kg CO2 eq	6.06E-1	7.72E-3	1.46E-4	6.14E-1	6.10E-3	2.10E-1	1.96E-3	-3.20E-1	5.12E-1
GWP-b	kg CO2 eq	-9.47E-2	4.69E-6	-1.54E-6	-9.47E-2	3.71E-6	1.18E-1	2.43E-6	3.99E-2	6.33E-2
GWP-luluc	kg CO2 eq	7.49E-4	2.73E-6	1.49E-7	7.51E-4	2.16E-6	7.69E-5	5.29E-8	-5.06E-4	3.25E-4
ODP	kg CFC11 eq	2.62E-7	1.78E-9	8.26E-12	2.64E-7	1.41E-9	2.13E-8	7.24E-11	-1.38E-7	1.48E-7
AP	mol H+ eq	2.98E-3	4.40E-5	1.47E-6	3.02E-3	3.48E-5	3.77E-4	1.77E-6	-1.30E-3	2.14E-3
EP-fw	kg P eq	2.79E-5	6.35E-8	8.24E-9	2.80E-5	5.02E-8	2.58E-6	2.37E-9	-1.40E-5	1.66E-5
EP-m	kg N eq	5.50E-4	1.57E-5	1.55E-7	5.65E-4	1.24E-5	9.53E-5	1.08E-6	-2.47E-4	4.27E-4
EP-T	mol N eq	5.91E-3	1.73E-4	1.85E-6	6.09E-3	1.37E-4	1.05E-3	7.04E-6	-2.70E-3	4.58E-3
POCP	kg NMVOC eq	1.94E-3	4.95E-5	6.28E-7	1.99E-3	3.92E-5	3.13E-4	2.43E-6	-8.98E-4	1.44E-3
ADP-mm	kg Sb eq	4.97E-4	2.00E-7	1.97E-8	4.97E-4	1.58E-7	1.48E-6	1.79E-9	-5.86E-6	4.93E-4
ADP-f	MJ	1.40E+1	1.18E-1	1.36E-3	1.42E+1	9.37E-2	1.00E+0	5.30E-3	-7.32E+0	7.94E+0
WDP	m3 depriv.	8.26E-1	3.63E-4	5.22E-5	8.26E-1	2.87E-4	3.82E-2	4.13E-5	-4.42E-1	4.23E-1
PM	disease inc.	2.33E-8	6.96E-10	9.08E-12	2.40E-8	5.51E-10	4.71E-9	3.65E-11	-1.22E-8	1.71E-8
IR	kBq U-235 eq	3.03E-2	5.18E-4	1.02E-6	3.09E-2	4.09E-4	3.56E-3	2.42E-5	-1.54E-2	1.94E-2
ETP-fw	CTUe	1.93E+1	9.62E-2	1.21E-2	1.94E+1	7.61E-2	7.46E+0	8.17E-2	-7.29E+0	1.98E+1
HTP-c	CTUh	5.67E-10	3.42E-12	6.17E-13	5.71E-10	2.71E-12	1.21E-10	1.51E-13	-2.00E-10	4.95E-10
HTP-nc	CTUh	1.59E-8	1.15E-10	1.57E-11	1.60E-8	9.07E-11	2.68E-9	1.58E-11	-5.37E-9	1.34E-8
SQP	Pt	1.20E+1	1.01E-1	2.24E-3	1.21E+1	8.01E-2	6.18E-1	1.35E-2	-1.52E+1	-2.37E+0
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	3.58E+0	1.70E-3	2.40E-2	3.61E+0	1.34E-3	7.07E-2	1.94E-4	-2.68E+0	1.00E+0
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	3.58E+0	1.70E-3	2.40E-2	3.61E+0	1.34E-3	7.07E-2	1.94E-4	-2.68E+0	1.00E+0
PENRE	MJ	1.51E+1	1.26E-1	1.44E-3	1.52E+1	9.95E-2	1.07E+0	5.62E-3	-7.89E+0	8.48E+0
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	1.51E+1	1.26E-1	1.44E-3	1.52E+1	9.95E-2	1.07E+0	5.62E-3	-7.89E+0	8.48E+0
PET	MJ	1.87E+1	1.27E-1	2.55E-2	1.88E+1	1.01E-1	1.14E+0	5.81E-3	-1.06E+1	9.48E+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	1.02E-2	1.34E-5	1.46E-6	1.02E-2	1.06E-5	1.06E-3	6.45E-6	-5.64E-3	5.68E-3

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	7.26E-5	3.03E-7	2.73E-13	7.29E-5	2.40E-7	1.68E-6	6.51E-9	-7.07E-6	6.78E-5
NHWD	kg	6.68E-2	7.34E-3	1.05E-6	7.42E-2	5.81E-3	3.84E-2	2.32E-2	-2.76E-2	1.14E-1
RWD	kg	2.70E-5	8.05E-7	1.10E-13	2.78E-5	6.37E-7	3.88E-6	3.43E-8	-1.40E-5	1.83E-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



Ecochain Technologies BV
H.J.E. Wenckebachweg 123, 1096 AM Amsterdam, The Netherlands
<https://www.ecochain.com>
+31 20 3035 777