

# Environmental Profile

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

Ecochain v3.5.80



Product: 3021622 - KANION PVC Angle ext. 130x90 BK  
 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

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# Results

Environmental impact	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
GWP-total	kg CO2 eq	1.07E+0	1.57E-2	1.45E-4	1.08E+0	1.26E-2	8.02E-1	4.09E-3	-6.02E-1	1.30E+0
GWP-f	kg CO2 eq	1.32E+0	1.57E-2	1.46E-4	1.34E+0	1.26E-2	4.90E-1	4.09E-3	-7.01E-1	1.15E+0
GWP-b	kg CO2 eq	-2.57E-1	9.51E-6	-1.54E-6	-2.57E-1	7.65E-6	3.12E-1	5.09E-6	1.00E-1	1.55E-1
GWP-luluc	kg CO2 eq	1.70E-3	5.54E-6	1.49E-7	1.70E-3	4.46E-6	1.60E-4	1.08E-7	-1.20E-3	6.67E-4
ODP	kg CFC11 eq	5.61E-7	3.61E-9	8.26E-12	5.65E-7	2.90E-9	4.46E-8	1.51E-10	-2.89E-7	3.24E-7
AP	mol H+ eq	6.43E-3	8.92E-5	1.47E-6	6.52E-3	7.18E-5	7.96E-4	3.67E-6	-2.81E-3	4.58E-3
EP-fw	kg P eq	5.97E-5	1.29E-7	8.24E-9	5.98E-5	1.04E-7	5.35E-6	4.86E-9	-3.06E-5	3.47E-5
EP-m	kg N eq	1.21E-3	3.19E-5	1.55E-7	1.24E-3	2.57E-5	2.03E-4	2.33E-6	-5.46E-4	9.25E-4
EP-T	mol N eq	1.29E-2	3.52E-4	1.85E-6	1.33E-2	2.83E-4	2.24E-3	1.46E-5	-5.99E-3	9.80E-3
POCP	kg NMVOC eq	4.32E-3	1.01E-4	6.28E-7	4.42E-3	8.09E-5	6.68E-4	5.04E-6	-1.96E-3	3.21E-3
ADP-mm	kg Sb eq	1.00E-3	4.05E-7	1.97E-8	1.00E-3	3.26E-7	3.09E-6	3.70E-9	-1.25E-5	9.92E-4
ADP-f	MJ	3.16E+1	2.40E-1	1.36E-3	3.18E+1	1.93E-1	2.09E+0	1.10E-2	-1.59E+1	1.83E+1
WDP	m3 depriv.	1.75E+0	7.37E-4	5.22E-5	1.75E+0	5.94E-4	7.97E-2	7.89E-5	-9.36E-1	8.90E-1
PM	disease inc.	5.34E-8	1.41E-9	9.08E-12	5.48E-8	1.14E-9	9.89E-9	7.58E-11	-2.77E-8	3.83E-8
IR	kBq U-235 eq	6.90E-2	1.05E-3	1.02E-6	7.00E-2	8.46E-4	7.46E-3	5.05E-5	-3.35E-2	4.49E-2
ETP-fw	CTUe	4.23E+1	1.95E-1	1.21E-2	4.25E+1	1.57E-1	1.56E+1	1.70E-1	-1.64E+1	4.19E+1
HTP-c	CTUh	1.10E-9	6.94E-12	6.17E-13	1.11E-9	5.59E-12	2.53E-10	3.09E-13	-4.45E-10	9.23E-10
HTP-nc	CTUh	3.20E-8	2.33E-10	1.57E-11	3.23E-8	1.87E-10	5.62E-9	3.28E-11	-1.27E-8	2.54E-8
SQP	Pt	3.08E+1	2.06E-1	2.24E-3	3.10E+1	1.65E-1	1.28E+0	2.82E-2	-3.88E+1	-6.35E+0
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	8.49E+0	3.45E-3	2.40E-2	8.52E+0	2.78E-3	1.47E-1	4.08E-4	-6.75E+0	1.92E+0
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	8.49E+0	3.45E-3	2.40E-2	8.52E+0	2.78E-3	1.47E-1	4.08E-4	-6.75E+0	1.92E+0
PENRE	MJ	3.39E+1	2.55E-1	1.44E-3	3.42E+1	2.05E-1	2.22E+0	1.17E-2	-1.71E+1	1.95E+1
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	3.39E+1	2.55E-1	1.44E-3	3.42E+1	2.05E-1	2.22E+0	1.17E-2	-1.71E+1	1.95E+1
PET	MJ	4.24E+1	2.59E-1	2.55E-2	4.27E+1	2.08E-1	2.37E+0	1.21E-2	-2.39E+1	2.14E+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	2.20E-2	2.72E-5	1.46E-6	2.20E-2	2.19E-5	2.23E-3	1.34E-5	-1.24E-2	1.19E-2

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	1.46E-4	6.15E-7	2.73E-13	1.47E-4	4.95E-7	3.53E-6	1.35E-8	-1.50E-5	1.36E-4
NHWD	kg	1.40E-1	1.49E-2	1.05E-6	1.55E-1	1.20E-2	8.20E-2	4.83E-2	-6.02E-2	2.37E-1
RWD	kg	6.45E-5	1.63E-6	1.10E-13	6.61E-5	1.32E-6	8.15E-6	7.15E-8	-3.07E-5	4.50E-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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