

# Environmental Profile

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

Ecochain v3.5.80



Product: 3021583 - KANION PVC Run.Outlet PVC130/90 Graph.  
 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	MND	MND	MND	MND	MND	MND	MND	MND	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	9.88E-1	1.57E-2	1.45E-4	1.00E+0	1.13E-2	7.16E-1	3.68E-3	-5.45E-1	1.19E+0
GWP-f	kg CO2 eq	1.21E+0	1.57E-2	1.46E-4	1.23E+0	1.13E-2	4.40E-1	3.68E-3	-6.39E-1	1.04E+0
GWP-b	kg CO2 eq	-2.24E-1	9.52E-6	-1.54E-6	-2.24E-1	6.85E-6	2.76E-1	4.55E-6	9.49E-2	1.46E-1
GWP-luluc	kg CO2 eq	1.57E-3	5.55E-6	1.49E-7	1.58E-3	3.99E-6	1.43E-4	9.81E-8	-1.10E-3	6.27E-4
ODP	kg CFC11 eq	4.93E-7	3.61E-9	8.26E-12	4.96E-7	2.60E-9	3.98E-8	1.35E-10	-2.59E-7	2.80E-7
AP	mol H+ eq	5.94E-3	8.93E-5	1.47E-6	6.03E-3	6.43E-5	7.17E-4	3.30E-6	-2.58E-3	4.24E-3
EP-fw	kg P eq	5.54E-5	1.29E-7	8.24E-9	5.56E-5	9.29E-8	4.79E-6	4.40E-9	-2.81E-5	3.23E-5
EP-m	kg N eq	1.12E-3	3.20E-5	1.55E-7	1.15E-3	2.30E-5	1.84E-4	2.09E-6	-5.00E-4	8.58E-4
EP-T	mol N eq	1.20E-2	3.52E-4	1.85E-6	1.23E-2	2.53E-4	2.03E-3	1.31E-5	-5.50E-3	9.14E-3
POCP	kg NMVOC eq	3.98E-3	1.01E-4	6.28E-7	4.08E-3	7.25E-5	6.04E-4	4.53E-6	-1.83E-3	2.94E-3
ADP-mm	kg Sb eq	9.04E-4	4.06E-7	1.97E-8	9.04E-4	2.92E-7	2.80E-6	3.33E-9	-1.13E-5	8.96E-4
ADP-f	MJ	2.80E+1	2.41E-1	1.36E-3	2.82E+1	1.73E-1	1.88E+0	9.87E-3	-1.43E+1	1.60E+1
WDP	m3 depriv.	1.57E+0	7.39E-4	5.22E-5	1.57E+0	5.32E-4	7.09E-2	7.47E-5	-8.46E-1	7.97E-1
PM	disease inc.	4.91E-8	1.42E-9	9.08E-12	5.05E-8	1.02E-9	8.95E-9	6.80E-11	-2.57E-8	3.48E-8
IR	kBq U-235 eq	6.03E-2	1.05E-3	1.02E-6	6.13E-2	7.57E-4	6.71E-3	4.52E-5	-3.01E-2	3.88E-2
ETP-fw	CTUe	3.97E+1	1.95E-1	1.21E-2	3.99E+1	1.41E-1	1.38E+1	1.51E-1	-1.54E+1	3.86E+1
HTP-c	CTUh	1.20E-9	6.96E-12	6.17E-13	1.20E-9	5.01E-12	2.30E-10	2.80E-13	-4.00E-10	1.04E-9
HTP-nc	CTUh	3.14E-8	2.33E-10	1.57E-11	3.16E-8	1.68E-10	5.04E-9	2.91E-11	-9.38E-9	2.75E-8
SQP	Pt	2.73E+1	2.06E-1	2.24E-3	2.75E+1	1.48E-1	1.16E+0	2.52E-2	-3.52E+1	-6.36E+0
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	7.56E+0	3.45E-3	2.40E-2	7.59E+0	2.49E-3	1.32E-1	3.64E-4	-6.15E+0	1.58E+0
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	7.56E+0	3.45E-3	2.40E-2	7.59E+0	2.49E-3	1.32E-1	3.64E-4	-6.15E+0	1.58E+0
PENRE	MJ	3.00E+1	2.56E-1	1.44E-3	3.03E+1	1.84E-1	2.00E+0	1.05E-2	-1.54E+1	1.71E+1
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	3.00E+1	2.56E-1	1.44E-3	3.03E+1	1.84E-1	2.00E+0	1.05E-2	-1.54E+1	1.71E+1
PET	MJ	3.76E+1	2.59E-1	2.55E-2	3.79E+1	1.86E-1	2.13E+0	1.08E-2	-2.15E+1	1.87E+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	2.02E-2	2.72E-5	1.46E-6	2.02E-2	1.96E-5	1.99E-3	1.20E-5	-1.13E-2	1.09E-2

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	1.33E-4	6.16E-7	2.73E-13	1.34E-4	4.43E-7	3.19E-6	1.21E-8	-1.48E-5	1.23E-4
NHWD	kg	1.38E-1	1.49E-2	1.05E-6	1.52E-1	1.07E-2	7.41E-2	4.33E-2	-5.51E-2	2.25E-1
RWD	kg	5.47E-5	1.64E-6	1.10E-13	5.63E-5	1.18E-6	7.36E-6	6.41E-8	-2.76E-5	3.73E-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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