

Environmental Profile

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

Ecochain v3.5.80



Product: 3027787 - Gutter Branch 45° LGY 50 S/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



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]

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Results

Environmental impact	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
GWP-total	kg CO2 eq	2.66E-1	4.57E-3	1.45E-4	2.71E-1	3.50E-3	1.84E-1	1.11E-3	-1.55E-1	3.05E-1
GWP-f	kg CO2 eq	3.29E-1	4.56E-3	1.46E-4	3.34E-1	3.50E-3	1.11E-1	1.11E-3	-1.69E-1	2.81E-1
GWP-b	kg CO2 eq	-6.33E-2	2.77E-6	-1.54E-6	-6.33E-2	2.13E-6	7.30E-2	1.35E-6	1.37E-2	2.33E-2
GWP-luluc	kg CO2 eq	3.90E-4	1.61E-6	1.49E-7	3.92E-4	1.24E-6	4.25E-5	3.06E-8	-2.28E-4	2.07E-4
ODP	kg CFC11 eq	1.45E-7	1.05E-9	8.26E-12	1.46E-7	8.07E-10	1.16E-8	4.12E-11	-7.59E-8	8.21E-8
AP	mol H+ eq	1.96E-3	2.60E-5	1.47E-6	1.98E-3	1.99E-5	2.05E-4	1.01E-6	-6.83E-4	1.53E-3
EP-fw	kg P eq	1.57E-5	3.75E-8	8.24E-9	1.57E-5	2.88E-8	1.42E-6	1.36E-9	-7.06E-6	1.01E-5
EP-m	kg N eq	3.04E-4	9.30E-6	1.55E-7	3.13E-4	7.14E-6	5.14E-5	6.00E-7	-1.29E-4	2.44E-4
EP-T	mol N eq	3.29E-3	1.02E-4	1.85E-6	3.40E-3	7.86E-5	5.66E-4	4.00E-6	-1.40E-3	2.65E-3
POCP	kg NMVOC eq	1.08E-3	2.93E-5	6.28E-7	1.11E-3	2.25E-5	1.69E-4	1.38E-6	-4.71E-4	8.34E-4
ADP-mm	kg Sb eq	3.93E-4	1.18E-7	1.97E-8	3.93E-4	9.06E-8	8.05E-7	1.02E-9	-3.22E-6	3.91E-4
ADP-f	MJ	7.56E+0	7.00E-2	1.36E-3	7.63E+0	5.37E-2	5.53E-1	3.01E-3	-3.93E+0	4.30E+0
WDP	m3 depriv.	4.71E-1	2.15E-4	5.22E-5	4.71E-1	1.65E-4	2.10E-2	2.61E-5	-2.34E-1	2.59E-1
PM	disease inc.	1.30E-8	4.12E-10	9.08E-12	1.34E-8	3.16E-10	2.58E-9	2.07E-11	-6.08E-9	1.02E-8
IR	kBq U-235 eq	1.75E-2	3.06E-4	1.02E-6	1.78E-2	2.35E-4	1.95E-3	1.37E-5	-8.13E-3	1.19E-2
ETP-fw	CTUe	1.10E+1	5.69E-2	1.21E-2	1.11E+1	4.36E-2	4.05E+0	4.44E-2	-3.40E+0	1.19E+1
HTP-c	CTUh	3.73E-10	2.02E-12	6.17E-13	3.75E-10	1.55E-12	6.80E-11	8.69E-14	-1.10E-10	3.35E-10
HTP-nc	CTUh	9.61E-9	6.78E-11	1.57E-11	9.70E-9	5.20E-11	1.47E-9	8.62E-12	-3.16E-9	8.07E-9
SQP	Pt	7.39E+0	5.99E-2	2.24E-3	7.45E+0	4.60E-2	3.44E-1	7.65E-3	-7.69E+0	1.62E-1
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	2.17E+0	1.00E-3	2.40E-2	2.19E+0	7.71E-4	3.89E-2	1.07E-4	-1.33E+0	9.00E-1
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	2.17E+0	1.00E-3	2.40E-2	2.19E+0	7.71E-4	3.89E-2	1.07E-4	-1.33E+0	9.00E-1
PENRE	MJ	8.10E+0	7.43E-2	1.44E-3	8.18E+0	5.71E-2	5.88E-1	3.19E-3	-4.23E+0	4.59E+0
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	8.10E+0	7.43E-2	1.44E-3	8.18E+0	5.71E-2	5.88E-1	3.19E-3	-4.23E+0	4.59E+0
PET	MJ	1.03E+1	7.53E-2	2.55E-2	1.04E+1	5.78E-2	6.27E-1	3.30E-3	-5.57E+0	5.49E+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	6.08E-3	7.92E-6	1.46E-6	6.09E-3	6.08E-6	5.80E-4	3.65E-6	-2.82E-3	3.85E-3

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	5.51E-5	1.79E-7	2.73E-13	5.53E-5	1.37E-7	9.17E-7	3.72E-9	-3.61E-6	5.27E-5
NHWD	kg	5.08E-2	4.34E-3	1.05E-6	5.52E-2	3.33E-3	2.11E-2	1.33E-2	-1.50E-2	7.80E-2
RWD	kg	1.56E-5	4.76E-7	1.10E-13	1.61E-5	3.65E-7	2.12E-6	1.95E-8	-7.38E-6	1.12E-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