

Environmental Profile

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

Ecochain v3.5.80



Product: 3025688 - Gutter Branch 45° Sand 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	3.10E-1	4.65E-3	1.45E-4	3.15E-1	4.06E-3	2.00E-1	1.28E-3	-1.79E-1	3.41E-1
GWP-f	kg CO2 eq	3.72E-1	4.64E-3	1.46E-4	3.77E-1	4.05E-3	1.27E-1	1.28E-3	-1.93E-1	3.17E-1
GWP-b	kg CO2 eq	-6.30E-2	2.82E-6	-1.54E-6	-6.30E-2	2.46E-6	7.30E-2	1.58E-6	1.35E-2	2.35E-2
GWP-luluc	kg CO2 eq	4.24E-4	1.64E-6	1.49E-7	4.26E-4	1.43E-6	4.94E-5	3.52E-8	-2.44E-4	2.33E-4
ODP	kg CFC11 eq	1.68E-7	1.07E-9	8.26E-12	1.69E-7	9.34E-10	1.35E-8	4.77E-11	-8.79E-8	9.58E-8
AP	mol H+ eq	2.15E-3	2.65E-5	1.47E-6	2.18E-3	2.31E-5	2.37E-4	1.17E-6	-7.73E-4	1.67E-3
EP-fw	kg P eq	1.76E-5	3.82E-8	8.24E-9	1.76E-5	3.34E-8	1.65E-6	1.56E-9	-7.94E-6	1.14E-5
EP-m	kg N eq	3.37E-4	9.47E-6	1.55E-7	3.46E-4	8.26E-6	5.91E-5	6.99E-7	-1.44E-4	2.70E-4
EP-T	mol N eq	3.65E-3	1.04E-4	1.85E-6	3.76E-3	9.10E-5	6.51E-4	4.63E-6	-1.57E-3	2.93E-3
POCP	kg NMVOC eq	1.20E-3	2.98E-5	6.28E-7	1.23E-3	2.60E-5	1.95E-4	1.59E-6	-5.29E-4	9.27E-4
ADP-mm	kg Sb eq	3.94E-4	1.20E-7	1.97E-8	3.95E-4	1.05E-7	9.31E-7	1.18E-9	-3.71E-6	3.92E-4
ADP-f	MJ	8.64E+0	7.13E-2	1.36E-3	8.71E+0	6.22E-2	6.40E-1	3.49E-3	-4.51E+0	4.90E+0
WDP	m3 depriv.	5.43E-1	2.19E-4	5.22E-5	5.43E-1	1.91E-4	2.45E-2	2.93E-5	-2.68E-1	3.00E-1
PM	disease inc.	1.43E-8	4.19E-10	9.08E-12	1.47E-8	3.66E-10	2.97E-9	2.40E-11	-6.64E-9	1.14E-8
IR	kBq U-235 eq	1.98E-2	3.12E-4	1.02E-6	2.01E-2	2.72E-4	2.26E-3	1.59E-5	-9.23E-3	1.34E-2
ETP-fw	CTUe	1.18E+1	5.79E-2	1.21E-2	1.19E+1	5.05E-2	4.73E+0	5.20E-2	-3.73E+0	1.30E+1
HTP-c	CTUh	4.00E-10	2.06E-12	6.17E-13	4.03E-10	1.80E-12	7.77E-11	1.00E-13	-1.22E-10	3.60E-10
HTP-nc	CTUh	1.06E-8	6.90E-11	1.57E-11	1.06E-8	6.02E-11	1.70E-9	1.01E-11	-3.59E-9	8.82E-9
SQP	Pt	7.52E+0	6.10E-2	2.24E-3	7.59E+0	5.32E-2	3.97E-1	8.88E-3	-7.75E+0	3.00E-1
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	2.24E+0	1.02E-3	2.40E-2	2.26E+0	8.93E-4	4.53E-2	1.25E-4	-1.36E+0	9.55E-1
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	2.24E+0	1.02E-3	2.40E-2	2.26E+0	8.93E-4	4.53E-2	1.25E-4	-1.36E+0	9.55E-1
PENRE	MJ	9.27E+0	7.57E-2	1.44E-3	9.34E+0	6.61E-2	6.81E-1	3.70E-3	-4.86E+0	5.23E+0
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	9.27E+0	7.57E-2	1.44E-3	9.34E+0	6.61E-2	6.81E-1	3.70E-3	-4.86E+0	5.23E+0
PET	MJ	1.15E+1	7.67E-2	2.55E-2	1.16E+1	6.70E-2	7.26E-1	3.83E-3	-6.22E+0	6.19E+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	6.86E-3	8.07E-6	1.46E-6	6.87E-3	7.04E-6	6.75E-4	4.24E-6	-3.18E-3	4.37E-3

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	5.60E-5	1.82E-7	2.73E-13	5.62E-5	1.59E-7	1.06E-6	4.30E-9	-4.09E-6	5.33E-5
NHWD	kg	5.50E-2	4.42E-3	1.05E-6	5.94E-2	3.86E-3	2.43E-2	1.54E-2	-1.68E-2	8.62E-2
RWD	kg	1.76E-5	4.85E-7	1.10E-13	1.81E-5	4.23E-7	2.45E-6	2.26E-8	-8.35E-6	1.26E-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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