

Environmental Profile

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

Ecochain v3.5.80



Product: 3025894 - Gutter Union Sand 25
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	1.59E-1	2.87E-3	1.45E-4	1.62E-1	2.00E-3	1.01E-1	6.33E-4	-8.87E-2	1.78E-1
GWP-f	kg CO2 eq	1.90E-1	2.86E-3	1.46E-4	1.93E-1	2.00E-3	6.49E-2	6.33E-4	-9.53E-2	1.66E-1
GWP-b	kg CO2 eq	-3.14E-2	1.74E-6	-1.54E-6	-3.14E-2	1.21E-6	3.65E-2	7.64E-7	6.77E-3	1.18E-2
GWP-luluc	kg CO2 eq	2.19E-4	1.01E-6	1.49E-7	2.20E-4	7.08E-7	2.38E-5	1.78E-8	-1.20E-4	1.24E-4
ODP	kg CFC11 eq	8.04E-8	6.60E-10	8.26E-12	8.11E-8	4.61E-10	6.43E-9	2.35E-11	-4.29E-8	4.51E-8
AP	mol H+ eq	1.19E-3	1.63E-5	1.47E-6	1.21E-3	1.14E-5	1.15E-4	5.75E-7	-3.79E-4	9.58E-4
EP-fw	kg P eq	9.06E-6	2.36E-8	8.24E-9	9.09E-6	1.65E-8	7.92E-7	7.84E-10	-3.89E-6	6.01E-6
EP-m	kg N eq	1.77E-4	5.84E-6	1.55E-7	1.83E-4	4.08E-6	2.89E-5	3.38E-7	-7.10E-5	1.45E-4
EP-T	mol N eq	1.92E-3	6.43E-5	1.85E-6	1.98E-3	4.49E-5	3.18E-4	2.28E-6	-7.72E-4	1.58E-3
POCP	kg NMVOC eq	6.31E-4	1.84E-5	6.28E-7	6.50E-4	1.28E-5	9.54E-5	7.86E-7	-2.60E-4	4.99E-4
ADP-mm	kg Sb eq	2.45E-4	7.41E-8	1.97E-8	2.45E-4	5.18E-8	4.51E-7	5.89E-10	-1.81E-6	2.44E-4
ADP-f	MJ	4.31E+0	4.40E-2	1.36E-3	4.36E+0	3.07E-2	3.11E-1	1.72E-3	-2.22E+0	2.48E+0
WDP	m3 depriv.	2.69E-1	1.35E-4	5.22E-5	2.69E-1	9.42E-5	1.17E-2	1.64E-5	-1.31E-1	1.50E-1
PM	disease inc.	7.59E-9	2.58E-10	9.08E-12	7.86E-9	1.81E-10	1.45E-9	1.18E-11	-3.27E-9	6.23E-9
IR	kBq U-235 eq	1.00E-2	1.92E-4	1.02E-6	1.02E-2	1.34E-4	1.09E-3	7.78E-6	-4.52E-3	6.94E-3
ETP-fw	CTUe	6.45E+0	3.57E-2	1.21E-2	6.49E+0	2.49E-2	2.24E+0	2.45E-2	-1.83E+0	6.95E+0
HTP-c	CTUh	2.25E-10	1.27E-12	6.17E-13	2.27E-10	8.87E-13	3.95E-11	5.05E-14	-6.00E-11	2.07E-10
HTP-nc	CTUh	5.65E-9	4.25E-11	1.57E-11	5.71E-9	2.97E-11	8.24E-10	4.79E-12	-1.76E-9	4.81E-9
SQP	Pt	3.81E+0	3.76E-2	2.24E-3	3.85E+0	2.63E-2	1.95E-1	4.36E-3	-3.87E+0	2.12E-1
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	1.16E+0	6.31E-4	2.40E-2	1.18E+0	4.41E-4	2.18E-2	6.02E-5	-6.75E-1	5.30E-1
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	1.16E+0	6.31E-4	2.40E-2	1.18E+0	4.41E-4	2.18E-2	6.02E-5	-6.75E-1	5.30E-1
PENRE	MJ	4.62E+0	4.67E-2	1.44E-3	4.67E+0	3.26E-2	3.31E-1	1.82E-3	-2.40E+0	2.64E+0
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	4.62E+0	4.67E-2	1.44E-3	4.67E+0	3.26E-2	3.31E-1	1.82E-3	-2.40E+0	2.64E+0
PET	MJ	5.78E+0	4.73E-2	2.55E-2	5.85E+0	3.30E-2	3.53E-1	1.88E-3	-3.07E+0	3.17E+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	3.58E-3	4.97E-6	1.46E-6	3.59E-3	3.48E-6	3.24E-4	2.08E-6	-1.56E-3	2.36E-3

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	3.41E-5	1.12E-7	2.73E-13	3.42E-5	7.85E-8	5.16E-7	2.13E-9	-2.03E-6	3.27E-5
NHWD	kg	3.17E-2	2.72E-3	1.05E-6	3.44E-2	1.90E-3	1.21E-2	7.61E-3	-8.22E-3	4.78E-2
RWD	kg	8.95E-6	2.99E-7	1.10E-13	9.25E-6	2.09E-7	1.19E-6	1.11E-8	-4.09E-6	6.57E-6
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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