

Environmental Profile

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

Ecochain v3.5.64



Product: 3017349 - Prot.Pipe BK 125x11,4 L=100
Unit: 1 piece
Manufacturer: Wavin - DE - Westeregeln - verified
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LCA standard: EN15804+A2 (2019)
Standard database: Worldwide - Ecoinvent v 3.6 Cut-Off
Externally verified: Yes
Issue date: 11-08-2022
End of validity: 11-08-2027
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 - DE - Westeregeln - verified (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 Climate Change [kg CO2 eq]; **GWP-f** = EF Climate change - Fossil [kg CO2 eq]; **GWP-b** = EF Climate Change - Biogenic [kg CO2 eq]; **GWP-luluc** = EF 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	1.41E+2	3.56E-1	1.68E+1	1.58E+2	1.07E+1	3.49E+2	5.94E+0	7.65E+0	5.31E+2
GWP-f	kg CO2 eq	1.12E+2	3.55E-1	1.38E+1	1.26E+2	1.07E+1	3.49E+2	5.94E+0	6.85E+0	4.99E+2
GWP-b	kg CO2 eq	2.84E+1	1.64E-4	1.42E+0	2.98E+1	6.52E-3	-4.29E-1	4.46E-3	7.89E-1	3.02E+1
GWP-luluc	kg CO2 eq	2.11E-1	1.30E-4	1.59E+0	1.81E+0	3.80E-3	6.03E-2	8.64E-5	4.38E-2	1.91E+0
ODP	kg CFC11 eq	9.63E-6	7.84E-8	1.81E-6	1.15E-5	2.47E-6	7.85E-6	1.27E-7	-1.18E-5	1.01E-5
AP	mol H+ eq	6.18E-1	2.06E-3	8.16E-2	7.02E-1	6.11E-2	3.30E-1	3.03E-3	4.62E-1	1.56E+0
EP-fw	kg P eq	9.89E-3	3.59E-6	3.12E-4	1.02E-2	8.83E-5	1.74E-3	3.96E-6	2.51E-3	1.45E-2
EP-m	kg N eq	9.71E-2	7.26E-4	1.68E-2	1.15E-1	2.19E-2	9.59E-2	2.13E-3	6.19E-2	2.96E-1
EP-T	mol N eq	1.02E+0	8.01E-3	1.69E-1	1.20E+0	2.41E-1	1.06E+0	1.23E-2	6.96E-1	3.20E+0
POCP	kg NMVOC eq	2.60E-1	2.29E-3	4.87E-2	3.11E-1	6.89E-2	3.34E-1	4.82E-3	4.02E-1	1.12E+0
ADP-mm	kg Sb eq	2.56E-3	9.00E-6	4.06E-4	2.97E-3	2.78E-4	1.31E-3	3.05E-6	1.38E-3	5.94E-3
ADP-f	MJ	1.98E+3	5.36E+0	1.62E+2	2.15E+3	1.65E+2	1.05E+3	9.27E+0	3.08E+3	6.45E+3
WDP	m3 depriv.	2.38E+1	1.92E-2	9.23E+1	1.16E+2	5.06E-1	2.05E+1	4.64E-2	1.22E+2	2.59E+2
PM	disease inc.	6.27E-6	3.19E-8	7.30E-7	7.03E-6	9.69E-7	5.43E-6	6.37E-8	4.37E-6	1.79E-5
IR	kBq U-235 eq	1.56E+1	2.25E-2	4.35E-1	1.60E+1	7.20E-1	3.15E+0	4.31E-2	3.06E+0	2.30E+1
ETP-fw	CTUe	3.46E+3	4.78E+0	3.97E+2	3.86E+3	1.34E+2	1.19E+3	8.17E+0	6.94E+2	5.89E+3
HTP-c	CTUh	6.67E-8	1.55E-10	1.48E-8	8.16E-8	4.76E-9	1.43E-7	2.28E-10	3.16E-8	2.61E-7
HTP-nc	CTUh	1.68E-6	5.23E-9	3.80E-7	2.07E-6	1.59E-7	1.79E-6	5.21E-9	8.35E-7	4.86E-6
SQP	Pt	8.26E+2	4.65E+0	1.56E+1	8.46E+2	1.41E+2	8.35E+2	2.38E+1	1.16E+2	1.96E+3
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	3.45E+2	6.71E-2	8.60E+2	1.20E+3	2.36E+0	5.16E+1	3.65E-1	8.85E+1	1.35E+3
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	3.45E+2	6.71E-2	8.60E+2	1.20E+3	2.36E+0	5.16E+1	3.65E-1	8.85E+1	1.35E+3
PENRE	MJ	2.09E+3	5.69E+0	1.73E+2	2.27E+3	1.75E+2	1.11E+3	9.84E+0	3.21E+3	6.78E+3
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	2.09E+3	5.69E+0	1.73E+2	2.27E+3	1.75E+2	1.11E+3	9.84E+0	3.21E+3	6.78E+3
PET	MJ	2.43E+3	5.76E+0	1.03E+3	3.47E+3	1.77E+2	1.17E+3	1.02E+1	3.30E+3	8.12E+3
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	1.59E+0	6.53E-4	2.19E+0	3.78E+0	1.86E-2	6.04E-1	1.14E-2	1.78E+0	6.19E+0

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	1.72E-3	1.36E-5	2.62E-4	2.00E-3	4.21E-4	1.70E-3	1.12E-5	-2.39E-3	1.75E-3
NHWD	kg	1.89E+1	3.40E-1	3.29E-1	1.95E+1	1.02E+1	5.14E+1	4.08E+1	4.09E+0	1.26E+2
RWD	kg	1.29E-2	3.52E-5	6.25E-4	1.35E-2	1.12E-3	3.99E-3	6.06E-5	2.37E-3	2.11E-2
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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