

Environmental Profile

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

Ecochain v3.5.64



Product: 3084309 - Ca.Prot.Pipe BK 125x11,4 L=100 m
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	8.20E+2	4.64E+1	1.77E+1	8.84E+2	1.07E+1	3.49E+2	5.94E+0	-5.37E+2	7.12E+2
GWP-f	kg CO2 eq	8.16E+2	4.63E+1	1.44E+1	8.76E+2	1.07E+1	3.49E+2	5.94E+0	-5.35E+2	7.07E+2
GWP-b	kg CO2 eq	4.10E+0	1.05E-3	1.54E+0	5.64E+0	6.52E-3	-4.29E-1	4.46E-3	-2.03E+0	3.19E+0
GWP-luluc	kg CO2 eq	2.46E-1	2.56E-2	1.74E+0	2.01E+0	3.80E-3	6.03E-2	8.64E-5	-1.22E-1	1.96E+0
ODP	kg CFC11 eq	3.51E-5	9.69E-6	1.85E-6	4.67E-5	2.47E-6	7.85E-6	1.27E-7	-2.56E-5	3.15E-5
AP	mol H+ eq	3.00E+0	9.80E-1	8.64E-2	4.06E+0	6.11E-2	3.30E-1	3.03E-3	-1.48E+0	2.97E+0
EP-fw	kg P eq	1.36E-2	3.08E-4	3.30E-4	1.42E-2	8.83E-5	1.74E-3	3.96E-6	-6.68E-3	9.39E-3
EP-m	kg N eq	5.06E-1	2.53E-1	1.74E-2	7.76E-1	2.19E-2	9.59E-2	2.13E-3	-2.71E-1	6.25E-1
EP-T	mol N eq	5.64E+0	2.81E+0	1.76E-1	8.62E+0	2.41E-1	1.06E+0	1.23E-2	-3.02E+0	6.91E+0
POCP	kg NMVOC eq	2.72E+0	7.39E-1	5.07E-2	3.51E+0	6.89E-2	3.34E-1	4.82E-3	-1.41E+0	2.51E+0
ADP-mm	kg Sb eq	7.32E-3	6.98E-4	4.42E-4	8.46E-3	2.78E-4	1.31E-3	3.05E-6	-3.47E-3	6.58E-3
ADP-f	MJ	2.89E+4	6.38E+2	1.68E+2	2.97E+4	1.65E+2	1.05E+3	9.27E+0	-1.61E+4	1.49E+4
WDP	m3 depriv.	6.37E+2	1.56E+0	1.00E+2	7.39E+2	5.06E-1	2.05E+1	4.64E-2	-3.13E+2	4.47E+2
PM	disease inc.	2.71E-5	2.59E-6	7.55E-7	3.04E-5	9.69E-7	5.43E-6	6.37E-8	-1.17E-5	2.51E-5
IR	kBq U-235 eq	2.27E+1	2.71E+0	4.40E-1	2.58E+1	7.20E-1	3.15E+0	4.31E-2	-9.71E+0	2.00E+1
ETP-fw	CTUe	4.95E+3	4.84E+2	4.25E+2	5.86E+3	1.34E+2	1.19E+3	8.17E+0	-2.34E+3	4.85E+3
HTP-c	CTUh	2.14E-7	2.37E-8	1.58E-8	2.53E-7	4.76E-9	1.43E-7	2.28E-10	-1.11E-7	2.90E-7
HTP-nc	CTUh	5.04E-6	4.65E-7	4.11E-7	5.91E-6	1.59E-7	1.79E-6	5.21E-9	-2.49E-6	5.38E-6
SQP	Pt	1.04E+3	3.04E+2	1.56E+1	1.36E+3	1.41E+2	8.35E+2	2.38E+1	-5.10E+2	1.85E+3
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	4.74E+2	6.01E+0	9.39E+2	1.42E+3	2.36E+0	5.16E+1	3.65E-1	-2.33E+2	1.24E+3
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	4.74E+2	6.01E+0	9.39E+2	1.42E+3	2.36E+0	5.16E+1	3.65E-1	-2.33E+2	1.24E+3
PENRE	MJ	3.10E+4	6.77E+2	1.80E+2	3.19E+4	1.75E+2	1.11E+3	9.84E+0	-1.73E+4	1.59E+4
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	3.10E+4	6.77E+2	1.80E+2	3.19E+4	1.75E+2	1.11E+3	9.84E+0	-1.73E+4	1.59E+4
PET	MJ	3.15E+4	6.83E+2	1.12E+3	3.33E+4	1.77E+2	1.17E+3	1.02E+1	-1.76E+4	1.71E+4
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	9.62E+0	5.39E-2	2.39E+0	1.21E+1	1.86E-2	6.04E-1	1.14E-2	-4.78E+0	7.92E+0

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	3.71E-3	1.06E-3	2.62E-4	5.03E-3	4.21E-4	1.70E-3	1.12E-5	-4.70E-3	2.47E-3
NHWD	kg	2.61E+1	1.97E+1	3.31E-1	4.61E+1	1.02E+1	5.14E+1	4.08E+1	-1.31E+1	1.35E+2
RWD	kg	2.32E-2	4.32E-3	6.25E-4	2.82E-2	1.12E-3	3.99E-3	6.06E-5	-9.01E-3	2.43E-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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