

Environmental Profile

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

Ecochain v3.5.64



Product: 3054173 - PP ML Pipe GY 160 SN8 L=6
Unit: 1 piece
Manufacturer: Wavin - SE - Eskilstuna

LCA standard: EN15804+A2 (2019)
Standard database: Worldwide - Ecoinvent v 3.6 Cut-Off
Externally verified: Yes
Issue date: 20-06-2022
End of validity: 20-06-2027
Verifier: Harry van Ewijk - 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 - SE - Eskilstuna (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	2.43E+1	2.71E+0	1.26E+0	2.83E+1	4.67E-1	1.07E+1	1.50E-1	-1.47E+1	2.49E+1
GWP-f	kg CO2 eq	2.42E+1	2.71E+0	9.13E-1	2.78E+1	4.66E-1	1.06E+1	1.50E-1	-1.46E+1	2.44E+1
GWP-b	kg CO2 eq	7.11E-2	1.07E-3	2.40E-1	3.12E-1	2.83E-4	2.54E-2	1.37E-4	-5.16E-2	2.87E-1
GWP-luluc	kg CO2 eq	3.23E-2	1.06E-3	1.06E-1	1.40E-1	1.65E-4	2.62E-3	3.03E-6	-2.88E-3	1.39E-1
ODP	kg CFC11 eq	4.64E-7	5.93E-7	1.03E-7	1.16E-6	1.08E-7	3.44E-7	4.92E-9	-5.41E-7	1.08E-6
AP	mol H+ eq	8.77E-2	2.28E-2	7.73E-3	1.18E-1	2.66E-3	1.41E-2	1.13E-4	-4.16E-2	9.35E-2
EP-fw	kg P eq	3.73E-4	2.57E-5	1.68E-5	4.15E-4	3.84E-6	7.57E-5	1.35E-7	-1.67E-4	3.28E-4
EP-m	kg N eq	1.47E-2	7.15E-3	2.29E-3	2.41E-2	9.51E-4	4.03E-3	6.65E-5	-7.34E-3	2.19E-2
EP-T	mol N eq	1.66E-1	7.90E-2	2.51E-2	2.70E-1	1.05E-2	4.43E-2	4.60E-4	-8.15E-2	2.44E-1
POCP	kg NMVOC eq	7.49E-2	2.19E-2	6.98E-3	1.04E-1	3.00E-3	1.41E-2	1.64E-4	-3.75E-2	8.36E-2
ADP-mm	kg Sb eq	3.84E-4	6.38E-5	2.75E-5	4.75E-4	1.21E-5	5.71E-5	1.11E-7	-9.67E-5	4.48E-4
ADP-f	MJ	8.53E+2	4.03E+1	9.07E+0	9.02E+2	7.16E+0	4.57E+1	3.51E-1	-4.60E+2	4.95E+2
WDP	m3 depriv.	1.71E+1	1.37E-1	5.85E+0	2.31E+1	2.20E-2	8.79E-1	1.69E-3	-8.08E+0	1.59E+1
PM	disease inc.	7.71E-7	2.28E-7	1.30E-7	1.13E-6	4.21E-8	2.37E-7	2.38E-9	-3.49E-7	1.06E-6
IR	kBq U-235 eq	4.58E-1	1.69E-1	2.70E-2	6.54E-1	3.13E-2	1.38E-1	1.60E-3	-2.19E-1	6.06E-1
ETP-fw	CTUe	1.51E+2	3.51E+1	2.53E+1	2.11E+2	5.81E+0	5.11E+1	2.71E-1	-6.52E+1	2.03E+2
HTP-c	CTUh	6.72E-9	1.21E-9	9.99E-10	8.93E-9	2.07E-10	5.82E-9	7.61E-12	-2.46E-9	1.25E-8
HTP-nc	CTUh	1.70E-7	3.77E-8	2.72E-8	2.35E-7	6.93E-9	7.41E-8	1.70E-10	-6.06E-8	2.56E-7
SQP	Pt	3.49E+1	3.25E+1	1.19E+0	6.86E+1	6.13E+0	3.69E+1	8.72E-1	-1.28E+1	9.96E+1
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	1.31E+1	4.84E-1	5.72E+1	7.08E+1	1.03E-1	2.24E+0	1.17E-2	-5.87E+0	6.73E+1
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	1.31E+1	4.84E-1	5.72E+1	7.08E+1	1.03E-1	2.24E+0	1.17E-2	-5.87E+0	6.73E+1
PENRE	MJ	9.15E+2	4.28E+1	9.63E+0	9.67E+2	7.60E+0	4.87E+1	3.73E-1	-4.96E+2	5.28E+2
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	9.15E+2	4.28E+1	9.63E+0	9.67E+2	7.60E+0	4.87E+1	3.73E-1	-4.96E+2	5.28E+2
PET	MJ	9.28E+2	4.33E+1	6.68E+1	1.04E+3	7.71E+0	5.10E+1	3.84E-1	-5.02E+2	5.96E+2
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	2.63E-1	4.66E-3	1.39E-1	4.07E-1	8.10E-4	2.55E-2	4.29E-4	-1.22E-1	3.11E-1

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	1.18E-4	9.66E-5	1.38E-5	2.28E-4	1.83E-5	7.39E-5	4.17E-7	-1.11E-4	2.10E-4
NHWD	kg	1.04E+0	2.35E+0	4.23E-2	3.43E+0	4.44E-1	2.23E+0	1.77E+0	-3.61E-1	7.52E+0
RWD	kg	3.98E-4	2.66E-4	3.84E-5	7.02E-4	4.87E-5	1.76E-4	2.31E-6	-1.98E-4	7.31E-4
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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