

Environmental Profile

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

Ecochain v3.5.64



Product: 3054174 - PP ML Pipe BR 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	2.41E+1	2.70E+0	1.28E+0	2.81E+1	4.64E-1	1.05E+1	1.49E-1	-1.45E+1	2.47E+1
GWP-f	kg CO2 eq	2.40E+1	2.70E+0	9.28E-1	2.76E+1	4.63E-1	1.05E+1	1.49E-1	-1.45E+1	2.43E+1
GWP-b	kg CO2 eq	1.12E-1	1.07E-3	2.44E-1	3.57E-1	2.81E-4	-1.61E-2	1.35E-4	-5.11E-2	2.90E-1
GWP-luluc	kg CO2 eq	6.56E-3	1.06E-3	1.08E-1	1.16E-1	1.64E-4	2.61E-3	3.00E-6	-2.85E-3	1.15E-1
ODP	kg CFC11 eq	4.58E-7	5.92E-7	1.05E-7	1.15E-6	1.07E-7	3.41E-7	4.88E-9	-5.36E-7	1.07E-6
AP	mol H+ eq	8.68E-2	2.27E-2	7.86E-3	1.17E-1	2.64E-3	1.40E-2	1.12E-4	-4.11E-2	9.29E-2
EP-fw	kg P eq	3.68E-4	2.56E-5	1.71E-5	4.10E-4	3.81E-6	7.51E-5	1.33E-7	-1.65E-4	3.25E-4
EP-m	kg N eq	1.44E-2	7.11E-3	2.33E-3	2.38E-2	9.44E-4	4.01E-3	6.60E-5	-7.27E-3	2.15E-2
EP-T	mol N eq	1.64E-1	7.86E-2	2.56E-2	2.68E-1	1.04E-2	4.40E-2	4.56E-4	-8.07E-2	2.42E-1
POCP	kg NMVOC eq	7.41E-2	2.18E-2	7.10E-3	1.03E-1	2.97E-3	1.40E-2	1.62E-4	-3.71E-2	8.31E-2
ADP-mm	kg Sb eq	3.83E-4	6.36E-5	2.79E-5	4.75E-4	1.20E-5	5.67E-5	1.10E-7	-9.57E-5	4.48E-4
ADP-f	MJ	8.45E+2	4.02E+1	9.22E+0	8.94E+2	7.11E+0	4.54E+1	3.48E-1	-4.55E+2	4.92E+2
WDP	m3 depriv.	1.69E+1	1.36E-1	5.94E+0	2.30E+1	2.18E-2	8.73E-1	1.66E-3	-7.99E+0	1.59E+1
PM	disease inc.	7.61E-7	2.27E-7	1.33E-7	1.12E-6	4.18E-8	2.35E-7	2.36E-9	-3.45E-7	1.06E-6
IR	kBq U-235 eq	4.54E-1	1.69E-1	2.74E-2	6.50E-1	3.11E-2	1.37E-1	1.59E-3	-2.17E-1	6.02E-1
ETP-fw	CTUe	1.48E+2	3.50E+1	2.57E+1	2.09E+2	5.77E+0	5.08E+1	2.69E-1	-6.46E+1	2.01E+2
HTP-c	CTUh	6.63E-9	1.20E-9	1.02E-9	8.85E-9	2.05E-10	5.77E-9	7.53E-12	-2.43E-9	1.24E-8
HTP-nc	CTUh	1.68E-7	3.76E-8	2.77E-8	2.33E-7	6.88E-9	7.36E-8	1.69E-10	-5.99E-8	2.54E-7
SQP	Pt	3.29E+1	3.24E+1	1.21E+0	6.65E+1	6.08E+0	3.67E+1	8.65E-1	-1.27E+1	9.74E+1
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	1.27E+1	4.82E-1	5.82E+1	7.13E+1	1.02E-1	2.23E+0	1.16E-2	-5.81E+0	6.79E+1
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	1.27E+1	4.82E-1	5.82E+1	7.13E+1	1.02E-1	2.23E+0	1.16E-2	-5.81E+0	6.79E+1
PENRE	MJ	9.07E+2	4.26E+1	9.79E+0	9.59E+2	7.55E+0	4.84E+1	3.70E-1	-4.91E+2	5.25E+2
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	9.07E+2	4.26E+1	9.79E+0	9.59E+2	7.55E+0	4.84E+1	3.70E-1	-4.91E+2	5.25E+2
PET	MJ	9.19E+2	4.31E+1	6.80E+1	1.03E+3	7.65E+0	5.06E+1	3.81E-1	-4.96E+2	5.92E+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	2.59E-1	4.65E-3	1.41E-1	4.05E-1	8.05E-4	2.53E-2	4.26E-4	-1.21E-1	3.10E-1

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	1.17E-4	9.63E-5	1.40E-5	2.27E-4	1.82E-5	7.34E-5	4.13E-7	-1.10E-4	2.09E-4
NHWD	kg	1.03E+0	2.34E+0	4.30E-2	3.42E+0	4.41E-1	2.22E+0	1.76E+0	-3.58E-1	7.48E+0
RWD	kg	3.94E-4	2.65E-4	3.90E-5	6.98E-4	4.84E-5	1.74E-4	2.30E-6	-1.96E-4	7.28E-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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