

Environmental Profile

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

Ecochain v3.5.64



Product: 3062136 - Wafix PP ML Pipe RD 160 SN4 L=1 S/CH
Unit: 1 piece
Manufacturer: Wavin - SE - Eskilstuna

Wafix PP is a versatile, uncomplicated solution for your indoor drain. You can install the impact-resistant pipes even in frost. Their excellent chemical resistance makes them ideal for embedment applications.

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	4.07E+0	4.02E-1	1.75E-1	4.65E+0	7.08E-2	1.68E+0	2.42E-2	-2.38E+0	4.03E+0
GWP-f	kg CO2 eq	4.05E+0	4.01E-1	1.27E-1	4.58E+0	7.07E-2	1.67E+0	2.42E-2	-2.38E+0	3.97E+0
GWP-b	kg CO2 eq	1.45E-2	1.62E-4	3.33E-2	4.80E-2	4.29E-5	4.40E-3	2.18E-5	-8.15E-3	4.43E-2
GWP-luluc	kg CO2 eq	5.47E-3	1.56E-4	1.47E-2	2.04E-2	2.50E-5	3.98E-4	4.73E-7	-4.50E-4	2.03E-2
ODP	kg CFC11 eq	1.06E-7	8.79E-8	1.44E-8	2.09E-7	1.63E-8	5.23E-8	7.58E-10	-8.77E-8	1.90E-7
AP	mol H+ eq	1.51E-2	3.25E-3	1.07E-3	1.94E-2	4.03E-4	2.15E-3	1.75E-5	-6.76E-3	1.52E-2
EP-fw	kg P eq	6.69E-5	3.83E-6	2.34E-6	7.31E-5	5.82E-7	1.15E-5	2.12E-8	-2.73E-5	5.79E-5
EP-m	kg N eq	2.58E-3	1.03E-3	3.18E-4	3.93E-3	1.44E-4	6.17E-4	1.05E-5	-1.20E-3	3.51E-3
EP-T	mol N eq	2.90E-2	1.14E-2	3.49E-3	4.39E-2	1.59E-3	6.78E-3	7.12E-5	-1.33E-2	3.91E-2
POCP	kg NMVOC eq	1.29E-2	3.16E-3	9.69E-4	1.70E-2	4.54E-4	2.16E-3	2.56E-5	-6.13E-3	1.35E-2
ADP-mm	kg Sb eq	9.23E-5	9.53E-6	3.81E-6	1.06E-4	1.83E-6	8.70E-6	1.73E-8	-1.56E-5	1.01E-4
ADP-f	MJ	1.40E+2	5.97E+0	1.26E+0	1.47E+2	1.09E+0	6.95E+0	5.43E-2	-7.44E+1	8.08E+1
WDP	m3 depriv.	2.80E+0	2.04E-2	8.11E-1	3.64E+0	3.33E-3	1.34E-1	2.61E-4	-1.30E+0	2.47E+0
PM	disease inc.	1.37E-7	3.40E-8	1.81E-8	1.89E-7	6.38E-9	3.61E-8	3.69E-10	-5.71E-8	1.75E-7
IR	kBq U-235 eq	8.59E-2	2.51E-2	3.74E-3	1.15E-1	4.75E-3	2.10E-2	2.48E-4	-3.50E-2	1.06E-1
ETP-fw	CTUe	2.91E+1	5.21E+0	3.51E+0	3.78E+1	8.82E-1	7.79E+0	4.24E-2	-1.08E+1	3.57E+1
HTP-c	CTUh	1.53E-9	1.78E-10	1.39E-10	1.85E-9	3.14E-11	8.90E-10	1.20E-12	-3.98E-10	2.37E-9
HTP-nc	CTUh	3.46E-8	5.62E-9	3.78E-9	4.40E-8	1.05E-9	1.13E-8	2.68E-11	-6.75E-9	4.96E-8
SQP	Pt	7.02E+0	4.86E+0	1.66E-1	1.21E+1	9.29E-1	5.61E+0	1.35E-1	-2.08E+0	1.66E+1
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	5.37E+0	7.21E-2	7.94E+0	1.34E+1	1.56E-2	3.41E-1	1.85E-3	-9.40E-1	1.28E+1
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	5.37E+0	7.21E-2	7.94E+0	1.34E+1	1.56E-2	3.41E-1	1.85E-3	-9.40E-1	1.28E+1
PENRE	MJ	1.50E+2	6.34E+0	1.34E+0	1.58E+2	1.15E+0	7.40E+0	5.76E-2	-8.02E+1	8.62E+1
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	1.50E+2	6.34E+0	1.34E+0	1.58E+2	1.15E+0	7.40E+0	5.76E-2	-8.02E+1	8.62E+1
PET	MJ	1.55E+2	6.41E+0	9.28E+0	1.71E+2	1.17E+0	7.74E+0	5.95E-2	-8.11E+1	9.90E+1
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	4.40E-2	6.95E-4	1.93E-2	6.40E-2	1.23E-4	3.88E-3	6.65E-5	-1.97E-2	4.84E-2

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	2.41E-5	1.44E-5	1.92E-6	4.05E-5	2.78E-6	1.13E-5	6.45E-8	-1.98E-5	3.47E-5
NHWD	kg	2.28E-1	3.52E-1	5.88E-3	5.86E-1	6.73E-2	3.39E-1	2.69E-1	-5.98E-2	1.20E+0
RWD	kg	7.96E-5	3.94E-5	5.33E-6	1.24E-4	7.38E-6	2.67E-5	3.57E-7	-3.17E-5	1.27E-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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