

Environmental Profile

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

Ecochain v3.5.64



Product: 3062133 - Wafix PP ML Pipe RD 110 SN4 L=2 S/CH
 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



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.

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

A1 Raw material supply A2 Transport A3 Manufacturing

Construction process stage

A4 Transport gate to site
 A5 Assembly / Construction installation process

Use stage

B1 Use B2 Maintenance B3 Repair B4 Replacement B5 Refurbishment
 B6 Operational energy use B7 Operational water use

End-of-Life stage

C1 De-construction demolition C2 Transport C3 Waste processing
 C4 Disposal

Benefits and loads beyond the system boundaries

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 non-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	3.26E+0	3.45E-1	1.69E-1	3.78E+0	5.99E-2	1.39E+0	1.98E-2	-1.94E+0	3.31E+0
GWP-f	kg CO2 eq	3.25E+0	3.45E-1	1.23E-1	3.72E+0	5.98E-2	1.39E+0	1.98E-2	-1.93E+0	3.25E+0
GWP-b	kg CO2 eq	9.05E-3	1.37E-4	3.23E-2	4.15E-2	3.63E-5	4.83E-3	1.79E-5	-6.72E-3	3.97E-2
GWP-luluc	kg CO2 eq	5.21E-3	1.34E-4	1.43E-2	1.96E-2	2.12E-5	3.37E-4	3.94E-7	-3.73E-4	1.96E-2
ODP	kg CFC11 eq	7.47E-8	7.55E-8	1.39E-8	1.64E-7	1.38E-8	4.42E-8	6.36E-10	-7.13E-8	1.51E-7
AP	mol H+ eq	1.20E-2	2.85E-3	1.04E-3	1.59E-2	3.41E-4	1.81E-3	1.46E-5	-5.49E-3	1.26E-2
EP-fw	kg P eq	5.23E-5	3.28E-6	2.27E-6	5.78E-5	4.93E-7	9.72E-6	1.75E-8	-2.21E-5	4.59E-5
EP-m	kg N eq	2.03E-3	8.98E-4	3.08E-4	3.24E-3	1.22E-4	5.20E-4	8.67E-6	-9.71E-4	2.92E-3
EP-T	mol N eq	2.29E-2	9.92E-3	3.38E-3	3.62E-2	1.34E-3	5.71E-3	5.95E-5	-1.08E-2	3.25E-2
POCP	kg NMVOC eq	1.02E-2	2.75E-3	9.40E-4	1.39E-2	3.84E-4	1.82E-3	2.12E-5	-4.97E-3	1.12E-2
ADP-mm	kg Sb eq	6.53E-5	8.14E-6	3.70E-6	7.72E-5	1.55E-6	7.34E-6	1.45E-8	-1.27E-5	7.33E-5
ADP-f	MJ	1.13E+2	5.13E+0	1.22E+0	1.20E+2	9.19E-1	5.87E+0	4.54E-2	-6.06E+1	6.58E+1
WDP	m3 depriv.	2.28E+0	1.74E-2	7.87E-1	3.08E+0	2.82E-3	1.13E-1	2.21E-4	-1.06E+0	2.14E+0
PM	disease inc.	1.07E-7	2.91E-8	1.76E-8	1.54E-7	5.40E-9	3.05E-8	3.08E-10	-4.63E-8	1.44E-7
IR	kBq U-235 eq	6.55E-2	2.15E-2	3.63E-3	9.06E-2	4.02E-3	1.78E-2	2.08E-4	-2.87E-2	8.39E-2
ETP-fw	CTUe	2.21E+1	4.47E+0	3.40E+0	3.00E+1	7.46E-1	6.58E+0	3.52E-2	-8.74E+0	2.86E+1
HTP-c	CTUh	1.09E-9	1.53E-10	1.34E-10	1.37E-9	2.65E-11	7.51E-10	9.93E-13	-3.24E-10	1.83E-9
HTP-nc	CTUh	2.56E-8	4.80E-9	3.66E-9	3.41E-8	8.89E-10	9.55E-9	2.22E-11	-6.65E-9	3.79E-8
SQP	Pt	5.30E+0	4.15E+0	1.61E-1	9.61E+0	7.86E-1	4.74E+0	1.13E-1	-1.70E+0	1.36E+1
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	2.91E+0	6.17E-2	7.70E+0	1.07E+1	1.32E-2	2.88E-1	1.53E-3	-7.70E-1	1.02E+1
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	2.91E+0	6.17E-2	7.70E+0	1.07E+1	1.32E-2	2.88E-1	1.53E-3	-7.70E-1	1.02E+1
PENRE	MJ	1.21E+2	5.44E+0	1.30E+0	1.28E+2	9.75E-1	6.26E+0	4.82E-2	-6.53E+1	7.02E+1
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	1.21E+2	5.44E+0	1.30E+0	1.28E+2	9.75E-1	6.26E+0	4.82E-2	-6.53E+1	7.02E+1
PET	MJ	1.24E+2	5.50E+0	9.00E+0	1.39E+2	9.89E-1	6.55E+0	4.97E-2	-6.61E+1	8.04E+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	3.55E-2	5.95E-4	1.87E-2	5.48E-2	1.04E-4	3.27E-3	5.55E-5	-1.61E-2	4.22E-2

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	1.80E-5	1.23E-5	1.86E-6	3.22E-5	2.35E-6	9.51E-6	5.39E-8	-1.54E-5	2.87E-5
NHWD	kg	1.64E-1	3.00E-1	5.70E-3	4.70E-1	5.69E-2	2.87E-1	2.28E-1	-4.82E-2	9.93E-1
RWD	kg	5.89E-5	3.38E-5	5.17E-6	9.79E-5	6.25E-6	2.26E-5	2.99E-7	-2.59E-5	1.01E-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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