

Environmental Profile

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

Ecochain v3.5.64



Product: 3062141 - Wafix PP ML Pipe RD 110 SN8 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 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	3.95E+0	4.23E-1	1.98E-1	4.57E+0	7.33E-2	1.69E+0	2.41E-2	-2.36E+0	4.01E+0
GWP-f	kg CO2 eq	3.93E+0	4.22E-1	1.44E-1	4.50E+0	7.32E-2	1.69E+0	2.41E-2	-2.35E+0	3.94E+0
GWP-b	kg CO2 eq	1.22E-2	1.68E-4	3.78E-2	5.02E-2	4.44E-5	4.37E-3	2.18E-5	-8.21E-3	4.64E-2
GWP-luluc	kg CO2 eq	5.40E-3	1.65E-4	1.67E-2	2.23E-2	2.59E-5	4.12E-4	4.80E-7	-4.56E-4	2.22E-2
ODP	kg CFC11 eq	8.73E-8	9.25E-8	1.63E-8	1.96E-7	1.69E-8	5.40E-8	7.76E-10	-8.67E-8	1.81E-7
AP	mol H+ eq	1.45E-2	3.50E-3	1.22E-3	1.92E-2	4.17E-4	2.22E-3	1.78E-5	-6.68E-3	1.52E-2
EP-fw	kg P eq	6.25E-5	4.02E-6	2.65E-6	6.92E-5	6.02E-7	1.19E-5	2.14E-8	-2.68E-5	5.48E-5
EP-m	kg N eq	2.44E-3	1.10E-3	3.60E-4	3.90E-3	1.49E-4	6.35E-4	1.06E-5	-1.18E-3	3.52E-3
EP-T	mol N eq	2.75E-2	1.22E-2	3.95E-3	4.37E-2	1.64E-3	6.98E-3	7.26E-5	-1.31E-2	3.93E-2
POCP	kg NMVOC eq	1.23E-2	3.38E-3	1.10E-3	1.68E-2	4.70E-4	2.22E-3	2.59E-5	-6.03E-3	1.35E-2
ADP-mm	kg Sb eq	7.53E-5	9.98E-6	4.32E-6	8.96E-5	1.89E-6	8.97E-6	1.76E-8	-1.55E-5	8.50E-5
ADP-f	MJ	1.37E+2	6.28E+0	1.43E+0	1.45E+2	1.12E+0	7.18E+0	5.55E-2	-7.37E+1	7.98E+1
WDP	m3 depriv.	2.77E+0	2.13E-2	9.19E-1	3.71E+0	3.45E-3	1.38E-1	2.68E-4	-1.29E+0	2.55E+0
PM	disease inc.	1.29E-7	3.56E-8	2.05E-8	1.85E-7	6.61E-9	3.72E-8	3.76E-10	-5.62E-8	1.73E-7
IR	kBq U-235 eq	7.82E-2	2.64E-2	4.24E-3	1.09E-1	4.91E-3	2.17E-2	2.53E-4	-3.50E-2	1.01E-1
ETP-fw	CTUe	2.62E+1	5.47E+0	3.98E+0	3.56E+1	9.12E-1	8.03E+0	4.30E-2	-1.06E+1	3.40E+1
HTP-c	CTUh	1.24E-9	1.88E-10	1.57E-10	1.59E-9	3.25E-11	9.17E-10	1.21E-12	-3.94E-10	2.15E-9
HTP-nc	CTUh	3.00E-8	5.89E-9	4.28E-9	4.02E-8	1.09E-9	1.17E-8	2.71E-11	-8.63E-9	4.43E-8
SQP	Pt	6.18E+0	5.08E+0	1.88E-1	1.14E+1	9.61E-1	5.79E+0	1.38E-1	-2.06E+0	1.63E+1
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	3.27E+0	7.55E-2	9.00E+0	1.23E+1	1.61E-2	3.52E-1	1.86E-3	-9.38E-1	1.18E+1
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	3.27E+0	7.55E-2	9.00E+0	1.23E+1	1.61E-2	3.52E-1	1.86E-3	-9.38E-1	1.18E+1
PENRE	MJ	1.48E+2	6.67E+0	1.52E+0	1.56E+2	1.19E+0	7.65E+0	5.88E-2	-7.94E+1	8.52E+1
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	1.48E+2	6.67E+0	1.52E+0	1.56E+2	1.19E+0	7.65E+0	5.88E-2	-7.94E+1	8.52E+1
PET	MJ	1.51E+2	6.74E+0	1.05E+1	1.68E+2	1.21E+0	8.00E+0	6.07E-2	-8.04E+1	9.69E+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	4.29E-2	7.28E-4	2.18E-2	6.55E-2	1.27E-4	4.00E-3	6.78E-5	-1.96E-2	5.01E-2

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	2.10E-5	1.51E-5	2.17E-6	3.83E-5	2.87E-6	1.16E-5	6.58E-8	-1.85E-5	3.44E-5
NHWD	kg	1.91E-1	3.68E-1	6.66E-3	5.65E-1	6.96E-2	3.50E-1	2.78E-1	-5.84E-2	1.21E+0
RWD	kg	6.99E-5	4.15E-5	6.04E-6	1.17E-4	7.64E-6	2.76E-5	3.65E-7	-3.16E-5	1.21E-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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