

Environmental Profile

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

Ecochain v3.5.64



Product: 3062146 - Wafix PP ML Pipe RD 160 SN8 L=3 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	1.25E+1	1.36E+0	6.23E-1	1.45E+1	2.35E-1	5.43E+0	7.71E-2	-7.52E+0	1.27E+1
GWP-f	kg CO2 eq	1.25E+1	1.36E+0	4.51E-1	1.43E+1	2.35E-1	5.41E+0	7.71E-2	-7.50E+0	1.25E+1
GWP-b	kg CO2 eq	4.00E-2	5.40E-4	1.19E-1	1.59E-1	1.43E-4	1.26E-2	6.99E-5	-2.65E-2	1.46E-1
GWP-luluc	kg CO2 eq	1.63E-2	5.30E-4	5.25E-2	6.93E-2	8.32E-5	1.32E-3	1.54E-6	-1.47E-3	6.93E-2
ODP	kg CFC11 eq	2.65E-7	2.97E-7	5.11E-8	6.13E-7	5.42E-8	1.73E-7	2.49E-9	-2.77E-7	5.66E-7
AP	mol H+ eq	4.57E-2	1.13E-2	3.82E-3	6.08E-2	1.34E-3	7.10E-3	5.72E-5	-2.13E-2	4.80E-2
EP-fw	kg P eq	1.95E-4	1.29E-5	8.33E-6	2.16E-4	1.93E-6	3.81E-5	6.85E-8	-8.53E-5	1.71E-4
EP-m	kg N eq	7.70E-3	3.55E-3	1.13E-3	1.24E-2	4.79E-4	2.04E-3	3.39E-5	-3.76E-3	1.12E-2
EP-T	mol N eq	8.68E-2	3.92E-2	1.24E-2	1.38E-1	5.28E-3	2.24E-2	2.33E-4	-4.18E-2	1.25E-1
POCP	kg NMVOC eq	3.90E-2	1.09E-2	3.45E-3	5.33E-2	1.51E-3	7.12E-3	8.31E-5	-1.92E-2	4.28E-2
ADP-mm	kg Sb eq	2.27E-4	3.21E-5	1.36E-5	2.73E-4	6.08E-6	2.88E-5	5.65E-8	-4.96E-5	2.58E-4
ADP-f	MJ	4.39E+2	2.02E+1	4.49E+0	4.63E+2	3.61E+0	2.30E+1	1.78E-1	-2.36E+2	2.54E+2
WDP	m3 depriv.	8.81E+0	6.86E-2	2.89E+0	1.18E+1	1.11E-2	4.43E-1	8.55E-4	-4.14E+0	8.09E+0
PM	disease inc.	4.04E-7	1.14E-7	6.45E-8	5.83E-7	2.12E-8	1.19E-7	1.21E-9	-1.79E-7	5.47E-7
IR	kBq U-235 eq	2.44E-1	8.48E-2	1.33E-2	3.42E-1	1.58E-2	6.96E-2	8.13E-4	-1.12E-1	3.16E-1
ETP-fw	CTUe	8.04E+1	1.76E+1	1.25E+1	1.10E+2	2.93E+0	2.58E+1	1.38E-1	-3.32E+1	1.06E+2
HTP-c	CTUh	3.57E-9	6.04E-10	4.94E-10	4.67E-9	1.04E-10	2.94E-9	3.87E-12	-1.26E-9	6.45E-9
HTP-nc	CTUh	9.06E-8	1.89E-8	1.35E-8	1.23E-7	3.49E-9	3.74E-8	8.67E-11	-3.12E-8	1.33E-7
SQP	Pt	1.91E+1	1.63E+1	5.90E-1	3.60E+1	3.09E+0	1.86E+1	4.42E-1	-6.57E+0	5.15E+1
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	9.90E+0	2.43E-1	2.83E+1	3.84E+1	5.18E-2	1.13E+0	5.96E-3	-3.01E+0	3.66E+1
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	9.90E+0	2.43E-1	2.83E+1	3.84E+1	5.18E-2	1.13E+0	5.96E-3	-3.01E+0	3.66E+1
PENRE	MJ	4.71E+2	2.14E+1	4.76E+0	4.97E+2	3.83E+0	2.45E+1	1.89E-1	-2.54E+2	2.71E+2
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	4.71E+2	2.14E+1	4.76E+0	4.97E+2	3.83E+0	2.45E+1	1.89E-1	-2.54E+2	2.71E+2
PET	MJ	4.81E+2	2.17E+1	3.31E+1	5.35E+2	3.88E+0	2.57E+1	1.95E-1	-2.57E+2	3.08E+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	1.36E-1	2.34E-3	6.87E-2	2.07E-1	4.08E-4	1.28E-2	2.18E-4	-6.26E-2	1.58E-1

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	6.31E-5	4.85E-5	6.83E-6	1.18E-4	9.23E-6	3.73E-5	2.11E-7	-5.69E-5	1.08E-4
NHWD	kg	5.78E-1	1.18E+0	2.09E-2	1.78E+0	2.24E-1	1.12E+0	8.93E-1	-1.85E-1	3.84E+0
RWD	kg	2.16E-4	1.33E-4	1.90E-5	3.69E-4	2.45E-5	8.84E-5	1.17E-6	-1.01E-4	3.82E-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



Ecochain Technologies BV
H.J.E. Wenckebachweg 123, 1096 AM Amsterdam, The Netherlands
<https://www.ecochain.com>
+31 20 3035 777