Environmental Profile

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

Ecochain v3.5.64

Ecochain

Product:	3062125 - Wafix PP Pipe BR 200 SN8 L=1	
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

WAVIN
An Orbia business.

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

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]

Statement of Confidentiality

Results

Environmental impact	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
GWP-total	kg CO2 eq	9.38E+0	8.02E-1	2.97E-1	1.05E+1	1.05E-1	4.01E+0	4.95E-2	-5.48E+0	9.17E+0
GWP-f	kg CO2 eq	9.38E+0	8.01E-1	2.15E-1	1.04E+1	1.05E-1	4.02E+0	4.95E-2	-5.46E+0	9.10E+0
GWP-b	kg CO2 eq	1.48E-3	3.64E-4	5.66E-2	5.84E-2	6.37E-5	-4.24E-3	4.31E-5	-1.70E-2	3.73E-2
GWP-luluc	kg CO2 eq	2.89E-3	2.96E-4	2.50E-2	2.82E-2	3.71E-5	5.99E-4	8.40E-7	-9.42E-4	2.79E-2
ODP	kg CFC11 eq	1.83E-7	1.77E-7	2.44E-8	3.83E-7	2.42E-8	7.98E-8	1.24E-9	-2.37E-7	2.52E-7
AP	mol H+ eq	3.42E-2	4.86E-3	1.82E-3	4.09E-2	5.98E-4	3.42E-3	2.96E-5	-1.43E-2	3.07E-2
EP-fw	kg P eq	1.57E-4	8.03E-6	3.97E-6	1.69E-4	8.63E-7	1.73E-5	3.85E-8	-5.58E-5	1.31E-4
EP-m	kg N eq	5.75E-3	1.69E-3	5.40E-4	7.97E-3	2.14E-4	1.02E-3	1.93E-5	-2.58E-3	6.64E-3
EP-T	mol N eq	6.47E-2	1.86E-2	5.92E-3	8.93E-2	2.36E-3	1.12E-2	1.20E-4	-2.86E-2	7.44E-2
POCP	kg NMVOC eq	2.90E-2	5.29E-3	1.65E-3	3.60E-2	6.74E-4	3.51E-3	4.51E-5	-1.31E-2	2.71E-2
ADP-mm	kg Sb eq	1.22E-4	2.01E-5	6.47E-6	1.48E-4	2.71E-6	1.31E-5	2.98E-8	-3.26E-5	1.32E-4
ADP-f	MJ	3.23E+2	1.21E+1	2.14E+0	3.37E+2	1.61E+0	1.05E+1	9.05E-2	-1.64E+2	1.86E+2
WDP	m3 depriv.	6.42E+0	4.29E-2	1.38E+0	7.84E+0	4.94E-3	2.04E-1	4.53E-4	-2.70E+0	5.34E+0
PM	disease inc.	3.00E-7	7.14E-8	3.07E-8	4.02E-7	9.47E-9	5.53E-8	6.22E-10	-1.18E-7	3.49E-7
IR	kBq U-235 eq	1.77E-1	5.05E-2	6.36E-3	2.34E-1	7.04E-3	3.17E-2	4.20E-4	-7.36E-2	1.99E-1
ETP-fw	CTUe	6.01E+1	1.07E+1	5.96E+0	7.68E+1	1.31E+0	1.20E+1	7.58E-2	-2.08E+1	6.93E+1
HTP-c	CTUh	2.80E-9	3.50E-10	2.35E-10	3.38E-9	4.65E-11	1.53E-9	2.21E-12	-8.56E-10	4.11E-9
HTP-nc	CTUh	6.80E-8	1.17E-8	6.42E-9	8.62E-8	1.56E-9	1.84E-8	4.88E-11	-1.74E-8	8.88E-8
SQP	Pt	1.54E+1	1.04E+1	2.81E-1	2.61E+1	1.38E+0	8.39E+0	2.32E-1	-4.43E+0	3.16E+1

Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	5.45E+0	1.50E-1	1.35E+1	1.91E+1	2.31E-2	5.14E-1	3.51E-3	-1.93E+0	1.77E+1
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	5.45E+0	1.50E-1	1.35E+1	1.91E+1	2.31E-2	5.14E-1	3.51E-3	-1.93E+0	1.77E+1
PENRE	MJ	3.47E+2	1.28E+1	2.27E+0	3.62E+2	1.71E+0	1.12E+1	9.60E-2	-1.77E+2	1.98E+2
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	3.47E+2	1.28E+1	2.27E+0	3.62E+2	1.71E+0	1.12E+1	9.60E-2	-1.77E+2	1.98E+2
PET	MJ	3.52E+2	1.30E+1	1.57E+1	3.81E+2	1.73E+0	1.17E+1	9.96E-2	-1.79E+2	2.16E+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	1.03E-1	1.46E-3	3.27E-2	1.38E-1	1.82E-4	6.17E-3	1.12E-4	-4.07E-2	1.03E-1

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	4.43E-5	3.04E-5	3.25E-6	7.80E-5	4.12E-6	1.73E-5	1.09E-7	-5.01E-5	4.94E-5
NHWD	kg	4.26E-1	7.59E-1	9.98E-3	1.19E+0	9.98E-2	5.61E-1	3.99E-1	-1.25E-1	2.13E+0
RWD	kg	1.53E-4	7.92E-5	9.04E-6	2.41E-4	1.10E-5	4.03E-5	5.91E-7	-6.77E-5	2.26E-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