

# Environmental Profile

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

Ecochain v3.5.64



Product: 4055377 - Wafix PP Pipe GY 50 L=2 w/socket  
 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]

## Statement of Confidentiality

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# Results

Environmental impact	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
GWP-total	kg CO2 eq	1.22E+0	4.67E-2	3.92E-2	1.31E+0	1.54E-2	4.58E-1	7.23E-3	-7.25E-1	1.07E+0
GWP-f	kg CO2 eq	1.22E+0	4.67E-2	2.84E-2	1.29E+0	1.53E-2	4.58E-1	7.23E-3	-7.23E-1	1.05E+0
GWP-b	kg CO2 eq	5.33E-3	1.30E-5	7.48E-3	1.28E-2	9.31E-6	-6.22E-4	6.30E-6	-2.45E-3	9.76E-3
GWP-luluc	kg CO2 eq	3.40E-4	2.03E-5	3.30E-3	3.67E-3	5.43E-6	8.64E-5	1.23E-7	-1.35E-4	3.62E-3
ODP	kg CFC11 eq	2.57E-8	1.01E-8	3.22E-9	3.90E-8	3.53E-9	1.13E-8	1.81E-10	-2.71E-8	2.68E-8
AP	mol H+ eq	4.41E-3	6.09E-4	2.41E-4	5.26E-3	8.74E-5	4.75E-4	4.32E-6	-2.02E-3	3.80E-3
EP-fw	kg P eq	1.90E-5	3.92E-7	5.25E-7	1.99E-5	1.26E-7	2.50E-6	5.64E-9	-8.00E-6	1.46E-5
EP-m	kg N eq	7.33E-4	1.72E-4	7.13E-5	9.77E-4	3.13E-5	1.38E-4	2.82E-6	-3.58E-4	7.91E-4
EP-T	mol N eq	8.28E-3	1.91E-3	7.83E-4	1.10E-2	3.45E-4	1.52E-3	1.76E-5	-3.96E-3	8.89E-3
POCP	kg NMVOC eq	3.80E-3	5.13E-4	2.17E-4	4.53E-3	9.85E-5	4.81E-4	6.59E-6	-1.84E-3	3.28E-3
ADP-mm	kg Sb eq	1.97E-5	9.50E-7	8.55E-7	2.15E-5	3.97E-7	1.88E-6	4.36E-9	-4.72E-6	1.91E-5
ADP-f	MJ	4.28E+1	6.75E-1	2.82E-1	4.37E+1	2.35E-1	1.50E+0	1.32E-2	-2.26E+1	2.29E+1
WDP	m3 depriv.	8.46E-1	2.05E-3	1.82E-1	1.03E+0	7.23E-4	2.94E-2	6.63E-5	-3.90E-1	6.70E-1
PM	disease inc.	3.89E-8	3.45E-9	4.06E-9	4.65E-8	1.38E-9	7.81E-9	9.10E-11	-1.70E-8	3.87E-8
IR	kBq U-235 eq	2.37E-2	2.85E-3	8.40E-4	2.73E-2	1.03E-3	4.53E-3	6.14E-5	-1.04E-2	2.26E-2
ETP-fw	CTUe	7.19E+0	5.61E-1	7.87E-1	8.54E+0	1.91E-1	1.70E+0	1.11E-2	-2.93E+0	7.52E+0
HTP-c	CTUh	3.70E-10	2.15E-11	3.11E-11	4.22E-10	6.80E-12	2.05E-10	3.23E-13	-1.20E-10	5.15E-10
HTP-nc	CTUh	8.97E-9	5.82E-10	8.48E-10	1.04E-8	2.28E-10	2.53E-9	7.13E-12	-2.52E-9	1.06E-8
SQP	Pt	1.65E+0	4.68E-1	3.71E-2	2.15E+0	2.01E-1	1.20E+0	3.40E-2	-6.12E-1	2.98E+0
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	8.52E-1	7.46E-3	1.78E+0	2.64E+0	3.38E-3	7.41E-2	5.13E-4	-2.78E-1	2.44E+0
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	8.52E-1	7.46E-3	1.78E+0	2.64E+0	3.38E-3	7.41E-2	5.13E-4	-2.78E-1	2.44E+0
PENRE	MJ	4.59E+1	7.17E-1	3.00E-1	4.69E+1	2.50E-1	1.60E+0	1.40E-2	-2.44E+1	2.44E+1
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	4.59E+1	7.17E-1	3.00E-1	4.69E+1	2.50E-1	1.60E+0	1.40E-2	-2.44E+1	2.44E+1
PET	MJ	4.68E+1	7.25E-1	2.08E+0	4.96E+1	2.53E-1	1.67E+0	1.46E-2	-2.46E+1	2.69E+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	1.29E-2	7.05E-5	4.32E-3	1.73E-2	2.66E-5	8.66E-4	1.63E-5	-5.84E-3	1.24E-2

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	6.12E-6	1.45E-6	4.30E-7	7.99E-6	6.02E-7	2.45E-6	1.59E-8	-5.83E-6	5.23E-6
NHWD	kg	5.37E-2	3.30E-2	1.32E-3	8.81E-2	1.46E-2	7.42E-2	5.83E-2	-1.77E-2	2.17E-1
RWD	kg	2.10E-5	4.50E-6	1.19E-6	2.67E-5	1.60E-6	5.74E-6	8.64E-8	-9.40E-6	2.47E-5
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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