

# Environmental Profile

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

Ecochain v3.5.64



Product: 3061953 - Wafix PP Pipe GY 75 L=3 PL/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]

## 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	3.33E+0	1.26E-1	1.13E-1	3.57E+0	4.23E-2	1.27E+0	1.99E-2	-2.00E+0	2.90E+0
GWP-f	kg CO2 eq	3.32E+0	1.26E-1	8.21E-2	3.53E+0	4.22E-2	1.28E+0	1.99E-2	-2.00E+0	2.87E+0
GWP-b	kg CO2 eq	1.38E-2	3.33E-5	2.16E-2	3.55E-2	2.56E-5	-1.71E-3	1.73E-5	-6.75E-3	2.71E-2
GWP-luluc	kg CO2 eq	9.19E-4	5.52E-5	9.55E-3	1.05E-2	1.49E-5	2.38E-4	3.38E-7	-3.71E-4	1.04E-2
ODP	kg CFC11 eq	6.29E-8	2.70E-8	9.30E-9	9.92E-8	9.73E-9	3.11E-8	4.99E-10	-7.56E-8	6.50E-8
AP	mol H+ eq	1.19E-2	1.70E-3	6.96E-4	1.43E-2	2.41E-4	1.31E-3	1.19E-5	-5.57E-3	1.03E-2
EP-fw	kg P eq	5.14E-5	1.04E-6	1.52E-6	5.40E-5	3.47E-7	6.88E-6	1.55E-8	-2.20E-5	3.92E-5
EP-m	kg N eq	1.98E-3	4.77E-4	2.06E-4	2.66E-3	8.61E-5	3.81E-4	7.75E-6	-9.87E-4	2.15E-3
EP-T	mol N eq	2.23E-2	5.28E-3	2.26E-3	2.98E-2	9.48E-4	4.20E-3	4.83E-5	-1.09E-2	2.41E-2
POCP	kg NMVOC eq	1.03E-2	1.42E-3	6.28E-4	1.23E-2	2.71E-4	1.33E-3	1.81E-5	-5.06E-3	8.89E-3
ADP-mm	kg Sb eq	4.43E-5	2.51E-6	2.47E-6	4.93E-5	1.09E-6	5.18E-6	1.20E-8	-1.30E-5	4.26E-5
ADP-f	MJ	1.17E+2	1.81E+0	8.16E-1	1.20E+2	6.48E-1	4.13E+0	3.64E-2	-6.24E+1	6.21E+1
WDP	m3 depriv.	2.30E+0	5.44E-3	5.26E-1	2.84E+0	1.99E-3	8.09E-2	1.83E-4	-1.07E+0	1.84E+0
PM	disease inc.	1.04E-7	9.14E-9	1.17E-8	1.25E-7	3.81E-9	2.15E-8	2.51E-10	-4.68E-8	1.04E-7
IR	kBq U-235 eq	6.26E-2	7.64E-3	2.43E-3	7.27E-2	2.83E-3	1.25E-2	1.69E-4	-2.86E-2	5.96E-2
ETP-fw	CTUe	1.89E+1	1.50E+0	2.28E+0	2.26E+1	5.26E-1	4.68E+0	3.05E-2	-8.07E+0	1.98E+1
HTP-c	CTUh	9.82E-10	5.81E-11	8.99E-11	1.13E-9	1.87E-11	5.66E-10	8.90E-13	-3.30E-10	1.39E-9
HTP-nc	CTUh	2.38E-8	1.55E-9	2.45E-9	2.78E-8	6.27E-10	6.99E-9	1.96E-11	-6.94E-9	2.85E-8
SQP	Pt	4.25E+0	1.23E+0	1.07E-1	5.59E+0	5.54E-1	3.31E+0	9.35E-2	-1.69E+0	7.86E+0
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	1.76E+0	1.98E-2	5.15E+0	6.93E+0	9.30E-3	2.04E-1	1.41E-3	-7.66E-1	6.38E+0
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	1.76E+0	1.98E-2	5.15E+0	6.93E+0	9.30E-3	2.04E-1	1.41E-3	-7.66E-1	6.38E+0
PENRE	MJ	1.26E+2	1.92E+0	8.67E-1	1.28E+2	6.88E-1	4.40E+0	3.87E-2	-6.72E+1	6.62E+1
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	1.26E+2	1.92E+0	8.67E-1	1.28E+2	6.88E-1	4.40E+0	3.87E-2	-6.72E+1	6.62E+1
PET	MJ	1.27E+2	1.94E+0	6.01E+0	1.35E+2	6.97E-1	4.61E+0	4.01E-2	-6.80E+1	7.26E+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	3.50E-2	1.87E-4	1.25E-2	4.77E-2	7.33E-5	2.39E-3	4.49E-5	-1.61E-2	3.41E-2

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	1.62E-5	3.84E-6	1.24E-6	2.12E-5	1.66E-6	6.74E-6	4.39E-8	-1.62E-5	1.34E-5
NHWD	kg	1.37E-1	8.68E-2	3.81E-3	2.28E-1	4.02E-2	2.05E-1	1.61E-1	-4.89E-2	5.84E-1
RWD	kg	5.43E-5	1.21E-5	3.45E-6	6.98E-5	4.41E-6	1.58E-5	2.38E-7	-2.59E-5	6.44E-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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