

# Environmental Profile

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

Ecochain v3.5.64



Product: 3061941 - Wafix PP Pipe GY 40 L=1 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 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	5.32E-1	1.98E-2	1.56E-2	5.67E-1	6.37E-3	1.96E-1	3.00E-3	-3.05E-1	4.67E-1
GWP-f	kg CO2 eq	5.30E-1	1.98E-2	1.13E-2	5.61E-1	6.36E-3	1.96E-1	3.00E-3	-3.04E-1	4.62E-1
GWP-b	kg CO2 eq	2.13E-3	5.69E-6	2.98E-3	5.12E-3	3.86E-6	-2.59E-4	2.61E-6	-1.01E-3	3.86E-3
GWP-luluc	kg CO2 eq	1.60E-4	8.52E-6	1.32E-3	1.49E-3	2.25E-6	3.59E-5	5.11E-8	-5.54E-5	1.47E-3
ODP	kg CFC11 eq	1.35E-8	4.27E-9	1.28E-9	1.90E-8	1.47E-9	4.71E-9	7.52E-11	-1.16E-8	1.37E-8
AP	mol H+ eq	1.96E-3	2.50E-4	9.60E-5	2.31E-3	3.62E-5	1.99E-4	1.79E-6	-8.45E-4	1.70E-3
EP-fw	kg P eq	8.78E-6	1.68E-7	2.09E-7	9.16E-6	5.24E-8	1.04E-6	2.34E-9	-3.36E-6	6.89E-6
EP-m	kg N eq	3.27E-4	7.10E-5	2.85E-5	4.26E-4	1.30E-5	5.79E-5	1.17E-6	-1.50E-4	3.48E-4
EP-T	mol N eq	3.70E-3	7.87E-4	3.12E-4	4.80E-3	1.43E-4	6.38E-4	7.29E-6	-1.66E-3	3.92E-3
POCP	kg NMVOC eq	1.67E-3	2.12E-4	8.67E-5	1.97E-3	4.09E-5	2.01E-4	2.74E-6	-7.70E-4	1.44E-3
ADP-mm	kg Sb eq	1.10E-5	4.08E-7	3.41E-7	1.18E-5	1.65E-7	7.84E-7	1.81E-9	-1.96E-6	1.08E-5
ADP-f	MJ	1.83E+1	2.87E-1	1.13E-1	1.87E+1	9.77E-2	6.25E-1	5.49E-3	-9.44E+0	9.96E+0
WDP	m3 depriv.	3.64E-1	8.81E-4	7.26E-2	4.38E-1	3.00E-4	1.22E-2	2.80E-5	-1.62E-1	2.88E-1
PM	disease inc.	1.75E-8	1.48E-9	1.62E-9	2.06E-8	5.74E-10	3.26E-9	3.78E-11	-7.12E-9	1.73E-8
IR	kBq U-235 eq	1.11E-2	1.21E-3	3.35E-4	1.26E-2	4.27E-4	1.89E-3	2.55E-5	-4.31E-3	1.06E-2
ETP-fw	CTUe	3.50E+0	2.39E-1	3.14E-1	4.05E+0	7.93E-2	7.09E-1	4.60E-3	-1.25E+0	3.60E+0
HTP-c	CTUh	1.84E-10	9.08E-12	1.24E-11	2.06E-10	2.82E-12	8.61E-11	1.34E-13	-5.00E-11	2.45E-10
HTP-nc	CTUh	4.26E-9	2.49E-10	3.38E-10	4.84E-9	9.46E-11	1.06E-9	2.96E-12	-8.71E-10	5.13E-9
SQP	Pt	8.02E-1	2.02E-1	1.48E-2	1.02E+0	8.36E-2	5.01E-1	1.41E-2	-2.57E-1	1.36E+0
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	4.49E-1	3.19E-3	7.10E-1	1.16E+0	1.40E-3	3.09E-2	2.13E-4	-1.15E-1	1.08E+0
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	4.49E-1	3.19E-3	7.10E-1	1.16E+0	1.40E-3	3.09E-2	2.13E-4	-1.15E-1	1.08E+0
PENRE	MJ	1.96E+1	3.04E-1	1.20E-1	2.00E+1	1.04E-1	6.66E-1	5.83E-3	-1.02E+1	1.06E+1
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	1.96E+1	3.04E-1	1.20E-1	2.00E+1	1.04E-1	6.66E-1	5.83E-3	-1.02E+1	1.06E+1
PET	MJ	2.01E+1	3.08E-1	8.30E-1	2.12E+1	1.05E-1	6.96E-1	6.04E-3	-1.03E+1	1.17E+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	5.71E-3	3.02E-5	1.72E-3	7.46E-3	1.11E-5	3.61E-4	6.77E-6	-2.43E-3	5.41E-3

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	3.07E-6	6.21E-7	1.72E-7	3.86E-6	2.50E-7	1.02E-6	6.62E-9	-2.60E-6	2.54E-6
NHWD	kg	2.63E-2	1.43E-2	5.26E-4	4.11E-2	6.05E-3	3.11E-2	2.42E-2	-7.48E-3	9.50E-2
RWD	kg	1.01E-5	1.91E-6	4.77E-7	1.25E-5	6.64E-7	2.39E-6	3.59E-8	-3.92E-6	1.17E-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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