

Environmental Profile

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

Ecochain v3.5.64



Product: 3061944 - Wafix PP Pipe GY 40 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	1.37E+0	5.18E-2	4.66E-2	1.47E+0	1.74E-2	5.22E-1	8.21E-3	-8.24E-1	1.19E+0
GWP-f	kg CO2 eq	1.36E+0	5.18E-2	3.38E-2	1.45E+0	1.74E-2	5.23E-1	8.22E-3	-8.21E-1	1.17E+0
GWP-b	kg CO2 eq	5.76E-3	1.37E-5	8.89E-3	1.47E-2	1.06E-5	-7.04E-4	7.15E-6	-2.79E-3	1.12E-2
GWP-luluc	kg CO2 eq	3.72E-4	2.28E-5	3.93E-3	4.33E-3	6.17E-6	9.81E-5	1.40E-7	-1.54E-4	4.28E-3
ODP	kg CFC11 eq	2.54E-8	1.11E-8	3.83E-9	4.04E-8	4.02E-9	1.28E-8	2.06E-10	-3.09E-8	2.65E-8
AP	mol H+ eq	4.86E-3	7.00E-4	2.86E-4	5.85E-3	9.93E-5	5.39E-4	4.91E-6	-2.29E-3	4.20E-3
EP-fw	kg P eq	2.08E-5	4.30E-7	6.24E-7	2.19E-5	1.43E-7	2.83E-6	6.41E-9	-9.06E-6	1.58E-5
EP-m	kg N eq	8.08E-4	1.97E-4	8.49E-5	1.09E-3	3.55E-5	1.57E-4	3.20E-6	-4.06E-4	8.79E-4
EP-T	mol N eq	9.11E-3	2.18E-3	9.31E-4	1.22E-2	3.91E-4	1.73E-3	2.00E-5	-4.50E-3	9.86E-3
POCP	kg NMVOC eq	4.21E-3	5.85E-4	2.59E-4	5.06E-3	1.12E-4	5.46E-4	7.49E-6	-2.08E-3	3.64E-3
ADP-mm	kg Sb eq	1.82E-5	1.04E-6	1.02E-6	2.02E-5	4.51E-7	2.13E-6	4.95E-9	-5.36E-6	1.75E-5
ADP-f	MJ	4.81E+1	7.47E-1	3.36E-1	4.92E+1	2.67E-1	1.70E+0	1.50E-2	-2.57E+1	2.55E+1
WDP	m3 depriv.	9.48E-1	2.24E-3	2.16E-1	1.17E+0	8.21E-4	3.34E-2	7.55E-5	-4.43E-1	7.58E-1
PM	disease inc.	4.27E-8	3.77E-9	4.83E-9	5.13E-8	1.57E-9	8.87E-9	1.03E-10	-1.93E-8	4.25E-8
IR	kBq U-235 eq	2.55E-2	3.15E-3	9.99E-4	2.96E-2	1.17E-3	5.14E-3	6.97E-5	-1.18E-2	2.42E-2
ETP-fw	CTUe	7.60E+0	6.17E-1	9.37E-1	9.16E+0	2.17E-1	1.93E+0	1.26E-2	-3.30E+0	8.02E+0
HTP-c	CTUh	3.85E-10	2.39E-11	3.70E-11	4.46E-10	7.73E-12	2.33E-10	3.67E-13	-1.36E-10	5.51E-10
HTP-nc	CTUh	9.54E-9	6.37E-10	1.01E-9	1.12E-8	2.59E-10	2.88E-9	8.10E-12	-3.05E-9	1.13E-8
SQP	Pt	1.72E+0	5.09E-1	4.42E-2	2.28E+0	2.29E-1	1.36E+0	3.86E-2	-6.94E-1	3.21E+0
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	7.16E-1	8.17E-3	2.12E+0	2.84E+0	3.84E-3	8.41E-2	5.83E-4	-3.16E-1	2.62E+0
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	7.16E-1	8.17E-3	2.12E+0	2.84E+0	3.84E-3	8.41E-2	5.83E-4	-3.16E-1	2.62E+0
PENRE	MJ	5.16E+1	7.93E-1	3.57E-1	5.28E+1	2.84E-1	1.82E+0	1.60E-2	-2.77E+1	2.72E+1
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	5.16E+1	7.93E-1	3.57E-1	5.28E+1	2.84E-1	1.82E+0	1.60E-2	-2.77E+1	2.72E+1
PET	MJ	5.23E+1	8.01E-1	2.48E+0	5.56E+1	2.88E-1	1.90E+0	1.65E-2	-2.80E+1	2.98E+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	1.44E-2	7.70E-5	5.14E-3	1.96E-2	3.03E-5	9.84E-4	1.85E-5	-6.63E-3	1.40E-2

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	6.45E-6	1.58E-6	5.12E-7	8.54E-6	6.84E-7	2.78E-6	1.81E-8	-6.53E-6	5.49E-6
NHWD	kg	5.52E-2	3.58E-2	1.57E-3	9.25E-2	1.66E-2	8.43E-2	6.63E-2	-2.01E-2	2.40E-1
RWD	kg	2.21E-5	4.98E-6	1.42E-6	2.85E-5	1.82E-6	6.52E-6	9.82E-8	-1.07E-5	2.62E-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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