

Environmental Profile

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

Ecochain v3.5.64



Product: 3020701 - Wafix PP Pipe BK 160 L=5
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



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					Use stage							End-of-Life stage				
A1 Raw material supply A2 Transport A3 Manufacturing					B1 Use B2 Maintenance B3 Repair B4 Replacement B5 Refurbishment B6 Operational energy use B7 Operational water use							C1 De-construction demolition C2 Transport C3 Waste processing C4 Disposal				
Construction process stage					Benefits and loads beyond the system boundaries											
A4 Transport gate to site A5 Assembly / Construction installation process					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]

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Results

Environmental impact	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
GWP-total	kg CO2 eq	2.37E+1	9.14E-1	8.29E-1	2.54E+1	3.09E-1	8.95E+0	1.45E-1	-1.44E+1	2.04E+1
GWP-f	kg CO2 eq	2.36E+1	9.14E-1	6.01E-1	2.51E+1	3.08E-1	8.96E+0	1.45E-1	-1.43E+1	2.02E+1
GWP-b	kg CO2 eq	1.08E-1	2.42E-4	1.58E-1	2.66E-1	1.87E-4	-1.24E-2	1.27E-4	-4.96E-2	2.04E-1
GWP-luluc	kg CO2 eq	6.13E-3	4.02E-4	6.98E-2	7.64E-2	1.09E-4	1.73E-3	2.47E-6	-2.73E-3	7.55E-2
ODP	kg CFC11 eq	4.21E-7	1.97E-7	6.80E-8	6.86E-7	7.10E-8	2.25E-7	3.64E-9	-5.28E-7	4.58E-7
AP	mol H+ eq	8.37E-2	1.24E-2	5.09E-3	1.01E-1	1.76E-3	9.48E-3	8.69E-5	-4.03E-2	7.21E-2
EP-fw	kg P eq	3.48E-4	7.57E-6	1.11E-5	3.67E-4	2.54E-6	5.00E-5	1.13E-7	-1.59E-4	2.60E-4
EP-m	kg N eq	1.39E-2	3.47E-3	1.51E-3	1.89E-2	6.28E-4	2.75E-3	5.66E-5	-7.12E-3	1.52E-2
EP-T	mol N eq	1.56E-1	3.85E-2	1.65E-2	2.11E-1	6.92E-3	3.03E-2	3.53E-4	-7.89E-2	1.70E-1
POCP	kg NMVOC eq	7.26E-2	1.03E-2	4.60E-3	8.75E-2	1.98E-3	9.59E-3	1.32E-4	-3.65E-2	6.27E-2
ADP-mm	kg Sb eq	3.16E-4	1.83E-5	1.81E-5	3.52E-4	7.97E-6	3.76E-5	8.76E-8	-9.48E-5	3.03E-4
ADP-f	MJ	8.39E+2	1.32E+1	5.97E+0	8.58E+2	4.73E+0	3.01E+1	2.66E-1	-4.51E+2	4.42E+2
WDP	m3 depriv.	1.65E+1	3.96E-2	3.85E+0	2.04E+1	1.45E-2	5.89E-1	1.33E-3	-7.82E+0	1.32E+1
PM	disease inc.	7.33E-7	6.64E-8	8.58E-8	8.86E-7	2.78E-8	1.56E-7	1.83E-9	-3.39E-7	7.33E-7
IR	kBq U-235 eq	4.31E-1	5.56E-2	1.77E-2	5.04E-1	2.07E-2	9.06E-2	1.23E-3	-2.08E-1	4.08E-1
ETP-fw	CTUe	1.26E+2	1.09E+1	1.66E+1	1.53E+2	3.84E+0	3.40E+1	2.23E-1	-5.72E+1	1.34E+2
HTP-c	CTUh	6.16E-9	4.22E-10	6.57E-10	7.24E-9	1.37E-10	4.08E-9	6.49E-12	-2.39E-9	9.08E-9
HTP-nc	CTUh	1.59E-7	1.12E-8	1.79E-8	1.88E-7	4.58E-9	5.05E-8	1.43E-10	-5.85E-8	1.85E-7
SQP	Pt	2.86E+1	8.97E+0	7.85E-1	3.84E+1	4.05E+0	2.40E+1	6.83E-1	-1.22E+1	5.50E+1
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	1.21E+1	1.44E-1	3.76E+1	4.99E+1	6.79E-2	1.48E+0	1.03E-2	-5.59E+0	4.58E+1
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	1.21E+1	1.44E-1	3.76E+1	4.99E+1	6.79E-2	1.48E+0	1.03E-2	-5.59E+0	4.58E+1
PENRE	MJ	9.01E+2	1.40E+1	6.34E+0	9.21E+2	5.02E+0	3.20E+1	2.82E-1	-4.86E+2	4.72E+2
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	9.01E+2	1.40E+1	6.34E+0	9.21E+2	5.02E+0	3.20E+1	2.82E-1	-4.86E+2	4.72E+2
PET	MJ	9.13E+2	1.41E+1	4.40E+1	9.71E+2	5.09E+0	3.35E+1	2.93E-1	-4.92E+2	5.18E+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	2.48E-1	1.36E-3	9.14E-2	3.41E-1	5.35E-4	1.73E-2	3.28E-4	-1.17E-1	2.42E-1

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	1.03E-4	2.79E-5	9.09E-6	1.40E-4	1.21E-5	4.89E-5	3.20E-7	-1.09E-4	9.25E-5
NHWD	kg	9.18E-1	6.30E-1	2.79E-2	1.58E+0	2.93E-1	1.47E+0	1.17E+0	-3.51E-1	4.16E+0
RWD	kg	3.73E-4	8.79E-5	2.53E-5	4.86E-4	3.22E-5	1.15E-4	1.74E-6	-1.88E-4	4.47E-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



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