

Environmental Profile

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

Ecochain v3.5.64



Product: 3020971 - Wafix PP Pipe BK 32 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	2.73E+0	1.06E-1	9.74E-2	2.93E+0	3.57E-2	1.03E+0	1.68E-2	-1.66E+0	2.36E+0
GWP-f	kg CO2 eq	2.72E+0	1.06E-1	7.06E-2	2.89E+0	3.56E-2	1.04E+0	1.68E-2	-1.65E+0	2.33E+0
GWP-b	kg CO2 eq	1.24E-2	2.79E-5	1.86E-2	3.10E-2	2.16E-5	-1.43E-3	1.46E-5	-5.76E-3	2.39E-2
GWP-luluc	kg CO2 eq	7.01E-4	4.64E-5	8.21E-3	8.96E-3	1.26E-5	2.00E-4	2.86E-7	-3.18E-4	8.86E-3
ODP	kg CFC11 eq	4.81E-8	2.27E-8	8.00E-9	7.88E-8	8.21E-9	2.60E-8	4.21E-10	-6.10E-8	5.25E-8
AP	mol H+ eq	9.63E-3	1.43E-3	5.98E-4	1.17E-2	2.03E-4	1.09E-3	1.00E-5	-4.65E-3	8.32E-3
EP-fw	kg P eq	3.97E-5	8.75E-7	1.30E-6	4.19E-5	2.93E-7	5.78E-6	1.31E-8	-1.83E-5	2.97E-5
EP-m	kg N eq	1.60E-3	4.02E-4	1.77E-4	2.17E-3	7.26E-5	3.18E-4	6.54E-6	-8.22E-4	1.75E-3
EP-T	mol N eq	1.80E-2	4.45E-3	1.95E-3	2.44E-2	8.01E-4	3.50E-3	4.08E-5	-9.10E-3	1.96E-2
POCP	kg NMVOC eq	8.36E-3	1.19E-3	5.40E-4	1.01E-2	2.29E-4	1.11E-3	1.53E-5	-4.21E-3	7.24E-3
ADP-mm	kg Sb eq	3.67E-5	2.11E-6	2.13E-6	4.09E-5	9.22E-7	4.34E-6	1.01E-8	-1.10E-5	3.52E-5
ADP-f	MJ	9.69E+1	1.52E+0	7.02E-1	9.91E+1	5.47E-1	3.47E+0	3.08E-2	-5.21E+1	5.10E+1
WDP	m3 depriv.	1.91E+0	4.57E-3	4.52E-1	2.37E+0	1.68E-3	6.81E-2	1.54E-4	-9.04E-1	1.53E+0
PM	disease inc.	8.43E-8	7.67E-9	1.01E-8	1.02E-7	3.22E-9	1.80E-8	2.11E-10	-3.90E-8	8.45E-8
IR	kBq U-235 eq	4.93E-2	6.42E-3	2.09E-3	5.78E-2	2.39E-3	1.05E-2	1.43E-4	-2.41E-2	4.67E-2
ETP-fw	CTUe	1.43E+1	1.26E+0	1.96E+0	1.75E+1	4.44E-1	3.92E+0	2.57E-2	-6.53E+0	1.53E+1
HTP-c	CTUh	6.62E-10	4.88E-11	7.73E-11	7.88E-10	1.58E-11	4.72E-10	7.51E-13	-2.75E-10	1.00E-9
HTP-nc	CTUh	1.78E-8	1.30E-9	2.11E-9	2.12E-8	5.30E-10	5.84E-9	1.66E-11	-7.27E-9	2.03E-8
SQP	Pt	3.29E+0	1.04E+0	9.23E-2	4.42E+0	4.68E-1	2.78E+0	7.89E-2	-1.40E+0	6.34E+0
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	1.39E+0	1.66E-2	4.43E+0	5.83E+0	7.85E-3	1.71E-1	1.19E-3	-6.47E-1	5.36E+0
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	1.39E+0	1.66E-2	4.43E+0	5.83E+0	7.85E-3	1.71E-1	1.19E-3	-6.47E-1	5.36E+0
PENRE	MJ	1.04E+2	1.62E+0	7.45E-1	1.06E+2	5.81E-1	3.70E+0	3.26E-2	-5.62E+1	5.45E+1
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	1.04E+2	1.62E+0	7.45E-1	1.06E+2	5.81E-1	3.70E+0	3.26E-2	-5.62E+1	5.45E+1
PET	MJ	1.05E+2	1.63E+0	5.17E+0	1.12E+2	5.89E-1	3.87E+0	3.38E-2	-5.68E+1	5.98E+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	2.86E-2	1.57E-4	1.07E-2	3.95E-2	6.19E-5	2.00E-3	3.79E-5	-1.35E-2	2.81E-2

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	1.16E-5	3.22E-6	1.07E-6	1.59E-5	1.40E-6	5.65E-6	3.71E-8	-1.23E-5	1.07E-5
NHWD	kg	1.04E-1	7.28E-2	3.28E-3	1.80E-1	3.39E-2	1.70E-1	1.36E-1	-4.04E-2	4.79E-1
RWD	kg	4.26E-5	1.02E-5	2.97E-6	5.58E-5	3.72E-6	1.33E-5	2.01E-7	-2.17E-5	5.12E-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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