

Environmental Profile

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

Ecochain v3.5.64



Product: 3061937 - Wafix PP Pipe WT 32 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 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

This document and supporting material contain confidential and proprietary business information of Wavin - SE - Eskilstuna. These materials may be printed or (photo) copied or otherwise used only with the written consent of Wavin - SE - Eskilstuna.

Results

Environmental impact	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
GWP-total	kg CO2 eq	1.13E+0	4.09E-2	3.67E-2	1.21E+0	1.38E-2	4.52E-1	6.48E-3	-6.75E-1	1.00E+0
GWP-f	kg CO2 eq	1.13E+0	4.09E-2	2.66E-2	1.19E+0	1.37E-2	4.52E-1	6.48E-3	-6.73E-1	9.92E-1
GWP-b	kg CO2 eq	3.32E-3	1.09E-5	7.00E-3	1.03E-2	8.34E-6	-5.56E-4	5.63E-6	-2.21E-3	7.58E-3
GWP-luluc	kg CO2 eq	3.41E-4	1.79E-5	3.10E-3	3.45E-3	4.86E-6	7.77E-5	1.12E-7	-1.22E-4	3.41E-3
ODP	kg CFC11 eq	2.28E-8	8.79E-9	3.02E-9	3.46E-8	3.17E-9	1.02E-8	1.63E-10	-2.69E-8	2.13E-8
AP	mol H+ eq	4.11E-3	5.49E-4	2.26E-4	4.89E-3	7.83E-5	4.32E-4	3.88E-6	-1.83E-3	3.57E-3
EP-fw	kg P eq	1.84E-5	3.40E-7	4.91E-7	1.92E-5	1.13E-7	2.25E-6	5.10E-9	-7.23E-6	1.43E-5
EP-m	kg N eq	6.83E-4	1.54E-4	6.68E-5	9.05E-4	2.80E-5	1.27E-4	2.51E-6	-3.27E-4	7.35E-4
EP-T	mol N eq	7.73E-3	1.71E-3	7.33E-4	1.02E-2	3.09E-4	1.39E-3	1.58E-5	-3.62E-3	8.27E-3
POCP	kg NMVOC eq	3.53E-3	4.60E-4	2.04E-4	4.19E-3	8.82E-5	4.39E-4	5.91E-6	-1.67E-3	3.05E-3
ADP-mm	kg Sb eq	1.62E-5	8.20E-7	8.01E-7	1.78E-5	3.55E-7	1.69E-6	3.93E-9	-4.25E-6	1.56E-5
ADP-f	MJ	3.90E+1	5.90E-1	2.65E-1	3.98E+1	2.11E-1	1.35E+0	1.19E-2	-2.07E+1	2.07E+1
WDP	m3 depriv.	7.86E-1	1.78E-3	1.70E-1	9.58E-1	6.47E-4	2.64E-2	6.49E-5	-3.52E-1	6.33E-1
PM	disease inc.	3.60E-8	2.98E-9	3.81E-9	4.27E-8	1.24E-9	7.07E-9	8.16E-11	-1.53E-8	3.58E-8
IR	kBq U-235 eq	2.17E-2	2.49E-3	7.87E-4	2.50E-2	9.22E-4	4.09E-3	5.50E-5	-9.45E-3	2.06E-2
ETP-fw	CTUe	7.00E+0	4.87E-1	7.38E-1	8.22E+0	1.71E-1	1.54E+0	9.93E-3	-2.66E+0	7.28E+0
HTP-c	CTUh	3.43E-10	1.89E-11	2.91E-11	3.91E-10	6.09E-12	1.92E-10	2.94E-13	-1.09E-10	4.80E-10
HTP-nc	CTUh	8.31E-9	5.04E-10	7.94E-10	9.61E-9	2.04E-10	2.33E-9	6.42E-12	-2.27E-9	9.88E-9
SQP	Pt	1.61E+0	4.03E-1	3.48E-2	2.05E+0	1.80E-1	1.08E+0	3.04E-2	-5.61E-1	2.78E+0
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	6.25E-1	6.46E-3	1.67E+0	2.30E+0	3.03E-3	6.67E-2	4.57E-4	-2.51E-1	2.12E+0
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	6.25E-1	6.46E-3	1.67E+0	2.30E+0	3.03E-3	6.67E-2	4.57E-4	-2.51E-1	2.12E+0
PENRE	MJ	4.18E+1	6.26E-1	2.81E-1	4.27E+1	2.24E-1	1.44E+0	1.26E-2	-2.23E+1	2.21E+1
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	4.18E+1	6.26E-1	2.81E-1	4.27E+1	2.24E-1	1.44E+0	1.26E-2	-2.23E+1	2.21E+1
PET	MJ	4.25E+1	6.32E-1	1.95E+0	4.50E+1	2.27E-1	1.51E+0	1.31E-2	-2.26E+1	2.42E+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	1.23E-2	6.09E-5	4.05E-3	1.64E-2	2.39E-5	7.85E-4	1.46E-5	-5.27E-3	1.20E-2

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	5.66E-6	1.25E-6	4.03E-7	7.32E-6	5.39E-7	2.22E-6	1.43E-8	-5.74E-6	4.36E-6
NHWD	kg	4.97E-2	2.83E-2	1.23E-3	7.93E-2	1.31E-2	6.87E-2	5.23E-2	-1.61E-2	1.97E-1
RWD	kg	1.88E-5	3.93E-6	1.12E-6	2.38E-5	1.43E-6	5.19E-6	7.74E-8	-8.61E-6	2.19E-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



Ecochain Technologies BV
H.J.E. Wenckebachweg 123, 1096 AM Amsterdam, The Netherlands
<https://www.ecochain.com>
+31 20 3035 777