

Environmental Profile

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

Ecochain v3.5.64



Product: 3061935 - Wafix PP Pipe WT 32 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 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	4.34E-1	1.55E-2	1.22E-2	4.62E-1	5.00E-3	1.71E-1	2.35E-3	-2.45E-1	3.95E-1
GWP-f	kg CO2 eq	4.33E-1	1.55E-2	8.88E-3	4.57E-1	4.99E-3	1.71E-1	2.35E-3	-2.45E-1	3.92E-1
GWP-b	kg CO2 eq	1.33E-3	4.48E-6	2.33E-3	3.67E-3	3.03E-6	-2.00E-4	2.05E-6	-8.23E-4	2.66E-3
GWP-luluc	kg CO2 eq	1.25E-4	6.67E-6	1.03E-3	1.16E-3	1.77E-6	2.82E-5	4.06E-8	-4.53E-5	1.15E-3
ODP	kg CFC11 eq	9.96E-9	3.34E-9	1.01E-9	1.43E-8	1.15E-9	3.71E-9	5.91E-11	-9.81E-9	9.42E-9
AP	mol H+ eq	1.61E-3	1.95E-4	7.52E-5	1.88E-3	2.85E-5	1.57E-4	1.41E-6	-6.63E-4	1.40E-3
EP-fw	kg P eq	6.58E-6	1.32E-7	1.64E-7	6.88E-6	4.11E-8	8.15E-7	1.85E-9	-2.57E-6	5.17E-6
EP-m	kg N eq	2.65E-4	5.55E-5	2.23E-5	3.43E-4	1.02E-5	4.63E-5	9.13E-7	-1.18E-4	2.82E-4
EP-T	mol N eq	3.01E-3	6.15E-4	2.44E-4	3.87E-3	1.12E-4	5.09E-4	5.73E-6	-1.31E-3	3.19E-3
POCP	kg NMVOC eq	1.34E-3	1.66E-4	6.79E-5	1.57E-3	3.21E-5	1.60E-4	2.15E-6	-6.01E-4	1.17E-3
ADP-mm	kg Sb eq	8.16E-6	3.20E-7	2.67E-7	8.75E-6	1.29E-7	6.14E-7	1.43E-9	-1.54E-6	7.95E-6
ADP-f	MJ	1.46E+1	2.25E-1	8.82E-2	1.49E+1	7.67E-2	4.92E-1	4.32E-3	-7.53E+0	7.91E+0
WDP	m3 depriv.	3.02E-1	6.91E-4	5.68E-2	3.59E-1	2.35E-4	9.62E-3	2.36E-5	-1.28E-1	2.41E-1
PM	disease inc.	1.41E-8	1.16E-9	1.27E-9	1.65E-8	4.51E-10	2.57E-9	2.97E-11	-5.51E-9	1.41E-8
IR	kBq U-235 eq	8.24E-3	9.47E-4	2.62E-4	9.45E-3	3.35E-4	1.48E-3	2.00E-5	-3.45E-3	7.84E-3
ETP-fw	CTUe	2.70E+0	1.87E-1	2.46E-1	3.14E+0	6.23E-2	5.69E-1	3.61E-3	-9.19E-1	2.85E+0
HTP-c	CTUh	1.08E-10	7.11E-12	9.71E-12	1.24E-10	2.22E-12	7.11E-11	1.07E-13	-3.95E-11	1.58E-10
HTP-nc	CTUh	2.92E-9	1.95E-10	2.65E-10	3.38E-9	7.42E-11	8.51E-10	2.33E-12	-1.11E-9	3.20E-9
SQP	Pt	6.57E-1	1.58E-1	1.16E-2	8.27E-1	6.56E-2	3.93E-1	1.11E-2	-2.01E-1	1.09E+0
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	3.27E-1	2.50E-3	5.56E-1	8.85E-1	1.10E-3	2.42E-2	1.66E-4	-9.14E-2	8.19E-1
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	3.27E-1	2.50E-3	5.56E-1	8.85E-1	1.10E-3	2.42E-2	1.66E-4	-9.14E-2	8.19E-1
PENRE	MJ	1.56E+1	2.39E-1	9.37E-2	1.60E+1	8.14E-2	5.24E-1	4.58E-3	-8.13E+0	8.44E+0
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	1.56E+1	2.39E-1	9.37E-2	1.60E+1	8.14E-2	5.24E-1	4.58E-3	-8.13E+0	8.44E+0
PET	MJ	1.60E+1	2.41E-1	6.50E-1	1.68E+1	8.25E-2	5.48E-1	4.74E-3	-8.22E+0	9.26E+0
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	4.87E-3	2.37E-5	1.35E-3	6.24E-3	8.68E-6	2.86E-4	5.31E-6	-1.92E-3	4.62E-3

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	2.11E-6	4.87E-7	1.34E-7	2.74E-6	1.96E-7	8.08E-7	5.22E-9	-1.92E-6	1.82E-6
NHWD	kg	1.94E-2	1.12E-2	4.12E-4	3.10E-2	4.75E-3	2.52E-2	1.90E-2	-5.71E-3	7.43E-2
RWD	kg	7.41E-6	1.50E-6	3.73E-7	9.28E-6	5.21E-7	1.88E-6	2.81E-8	-3.13E-6	8.58E-6
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