

Environmental Profile

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

Ecochain v3.5.80



Product: 3043848 - Wafix PP Pipe WT 32 L=0.25 L/CH
Unit: 1 piece
Manufacturer: Wavin - PL -Buk - Extra products

Wafix PP is a versatile, uncomplicated solution for your indoor drainage. You can easily install the impact-resistant pipes even in frost. Their excellent chemical resistance makes them ideal for cast-in applications.

LCA standard: EN15804+A2 (2019)
Standard database: Worldwide - Ecoinvent v 3.6 Cut-Off
Externally verified: Yes
Issue date: 08-06-2023
End of validity: 08-06-2028
Verifier: Martijn van Hövell - 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 - PL -Buk - Extra products (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 EN15804+A2 Climate Change [kg CO2 eq]; **GWP-f** = EF Climate change - Fossil [kg CO2 eq]; **GWP-b** = EF EN15804+A2 Climate Change - Biogenic [kg CO2 eq]; **GWP-luluc** = EF EN15804+A2 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

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Results

Environmental impact	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
GWP-total	kg CO2 eq	1.74E-1	7.82E-4	1.45E-4	1.75E-1	2.07E-3	1.07E-1	9.72E-4	-1.02E-1	1.84E-1
GWP-f	kg CO2 eq	2.07E-1	7.82E-4	1.46E-4	2.08E-1	2.06E-3	6.90E-2	9.73E-4	-1.10E-1	1.70E-1
GWP-b	kg CO2 eq	-3.31E-2	4.75E-7	-1.54E-6	-3.31E-2	1.25E-6	3.84E-2	8.45E-7	8.79E-3	1.40E-2
GWP-luluc	kg CO2 eq	1.56E-4	2.77E-7	1.49E-7	1.56E-4	7.30E-7	1.20E-5	1.69E-8	-1.05E-4	6.39E-5
ODP	kg CFC11 eq	8.63E-9	1.80E-10	8.26E-12	8.82E-9	4.76E-10	1.71E-9	2.44E-11	-6.35E-9	4.68E-9
AP	mol H+ eq	8.41E-4	4.45E-6	1.47E-6	8.47E-4	1.18E-5	7.11E-5	5.84E-7	-3.52E-4	5.79E-4
EP-fw	kg P eq	4.38E-6	6.43E-9	8.24E-9	4.40E-6	1.70E-8	3.50E-7	7.69E-10	-2.19E-6	2.57E-6
EP-m	kg N eq	1.50E-4	1.59E-6	1.55E-7	1.51E-4	4.21E-6	2.14E-5	3.77E-7	-6.81E-5	1.09E-4
EP-T	mol N eq	1.67E-3	1.76E-5	1.85E-6	1.69E-3	4.64E-5	2.35E-4	2.37E-6	-7.65E-4	1.21E-3
POCP	kg NMVOC eq	6.85E-4	5.02E-6	6.28E-7	6.91E-4	1.33E-5	7.36E-5	8.88E-7	-3.13E-4	4.66E-4
ADP-mm	kg Sb eq	6.37E-6	2.02E-8	1.97E-8	6.41E-6	5.34E-8	2.79E-7	5.91E-10	-8.11E-7	5.93E-6
ADP-f	MJ	6.57E+0	1.20E-2	1.36E-3	6.59E+0	3.17E-2	2.15E-1	1.78E-3	-3.25E+0	3.58E+0
WDP	m3 depriv.	1.37E-1	3.68E-5	5.22E-5	1.37E-1	9.72E-5	4.06E-3	1.01E-5	-7.01E-2	7.10E-2
PM	disease inc.	8.09E-9	7.06E-11	9.08E-12	8.17E-9	1.86E-10	1.15E-9	1.23E-11	-3.81E-9	5.71E-9
IR	kBq U-235 eq	4.95E-3	5.24E-5	1.02E-6	5.01E-3	1.38E-4	6.67E-4	8.25E-6	-2.33E-3	3.49E-3
ETP-fw	CTUe	3.06E+0	9.74E-3	1.21E-2	3.08E+0	2.57E-2	2.51E-1	1.49E-3	-1.29E+0	2.07E+0
HTP-c	CTUh	8.53E-11	3.47E-13	6.17E-13	8.63E-11	9.15E-13	3.10E-11	4.44E-14	-3.49E-11	8.33E-11
HTP-nc	CTUh	2.02E-9	1.16E-11	1.57E-11	2.05E-9	3.07E-11	3.69E-10	9.66E-13	-7.87E-10	1.66E-9
SQP	Pt	3.61E+0	1.03E-2	2.24E-3	3.62E+0	2.71E-2	1.69E-1	4.57E-3	-4.23E+0	-4.05E-1
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	1.21E+0	1.72E-4	2.40E-2	1.23E+0	4.54E-4	1.03E-2	6.85E-5	-7.17E-1	5.27E-1
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	1.21E+0	1.72E-4	2.40E-2	1.23E+0	4.54E-4	1.03E-2	6.85E-5	-7.17E-1	5.27E-1
PENRE	MJ	7.05E+0	1.27E-2	1.44E-3	7.07E+0	3.36E-2	2.29E-1	1.89E-3	-3.50E+0	3.83E+0
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	7.05E+0	1.27E-2	1.44E-3	7.07E+0	3.36E-2	2.29E-1	1.89E-3	-3.50E+0	3.83E+0
PET	MJ	8.26E+0	1.29E-2	2.55E-2	8.30E+0	3.41E-2	2.39E-1	1.96E-3	-4.22E+0	4.35E+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	2.36E-3	1.36E-6	1.46E-6	2.36E-3	3.58E-6	1.23E-4	2.19E-6	-1.22E-3	1.27E-3

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	1.54E-6	3.07E-8	2.73E-13	1.57E-6	8.10E-8	3.65E-7	2.16E-9	-1.13E-6	8.91E-7
NHWD	kg	1.29E-2	7.44E-4	1.05E-6	1.36E-2	1.96E-3	1.08E-2	7.85E-3	-4.63E-3	2.97E-2
RWD	kg	4.85E-6	8.16E-8	1.10E-13	4.93E-6	2.15E-7	8.56E-7	1.16E-8	-2.20E-6	3.81E-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



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