

Environmental Profile

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

Ecochain v3.5.80



Product: 3020643 - Wafix PP Branch 88° WT 40x40x40 S/S/S
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	1.03E-1	1.28E-3	1.45E-4	1.05E-1	1.73E-3	1.70E-1	8.13E-4	-1.03E-1	1.74E-1
GWP-f	kg CO2 eq	2.02E-1	1.28E-3	1.46E-4	2.03E-1	1.73E-3	6.85E-2	8.14E-4	-1.06E-1	1.68E-1
GWP-b	kg CO2 eq	-9.86E-2	7.76E-7	-1.54E-6	-9.86E-2	1.05E-6	1.01E-1	7.06E-7	3.30E-3	5.82E-3
GWP-luluc	kg CO2 eq	1.84E-4	4.52E-7	1.49E-7	1.84E-4	6.11E-7	1.02E-5	1.42E-8	-9.84E-5	9.68E-5
ODP	kg CFC11 eq	1.21E-8	2.95E-10	8.26E-12	1.24E-8	3.98E-10	1.50E-9	2.04E-11	-7.04E-9	7.33E-9
AP	mol H+ eq	8.86E-4	7.28E-6	1.47E-6	8.95E-4	9.84E-6	6.29E-5	4.89E-7	-3.47E-4	6.22E-4
EP-fw	kg P eq	4.97E-6	1.05E-8	8.24E-9	4.99E-6	1.42E-8	2.99E-7	6.46E-10	-2.01E-6	3.29E-6
EP-m	kg N eq	1.60E-4	2.61E-6	1.55E-7	1.62E-4	3.52E-6	1.93E-5	3.15E-7	-7.21E-5	1.13E-4
EP-T	mol N eq	1.81E-3	2.87E-5	1.85E-6	1.84E-3	3.88E-5	2.12E-4	1.98E-6	-8.18E-4	1.27E-3
POCP	kg NMVOC eq	7.37E-4	8.21E-6	6.28E-7	7.45E-4	1.11E-5	6.57E-5	7.43E-7	-3.30E-4	4.93E-4
ADP-mm	kg Sb eq	1.07E-5	3.31E-8	1.97E-8	1.08E-5	4.47E-8	2.39E-7	4.96E-10	-8.26E-7	1.02E-5
ADP-f	MJ	6.02E+0	1.96E-2	1.36E-3	6.04E+0	2.65E-2	1.85E-1	1.49E-3	-2.96E+0	3.29E+0
WDP	m3 depriv.	1.30E-1	6.02E-5	5.22E-5	1.30E-1	8.13E-5	3.44E-3	8.75E-6	-5.72E-2	7.59E-2
PM	disease inc.	9.31E-9	1.15E-10	9.08E-12	9.43E-9	1.56E-10	1.00E-9	1.03E-11	-4.15E-9	6.44E-9
IR	kBq U-235 eq	6.12E-3	8.58E-5	1.02E-6	6.20E-3	1.16E-4	5.82E-4	6.90E-6	-2.25E-3	4.66E-3
ETP-fw	CTUe	2.98E+0	1.59E-2	1.21E-2	3.00E+0	2.15E-2	2.15E-1	1.25E-3	-1.11E+0	2.13E+0
HTP-c	CTUh	1.15E-10	5.67E-13	6.17E-13	1.17E-10	7.66E-13	2.82E-11	3.74E-14	-5.30E-11	9.26E-11
HTP-nc	CTUh	2.24E-9	1.90E-11	1.57E-11	2.28E-9	2.57E-11	3.25E-10	8.10E-13	-8.18E-10	1.81E-9
SQP	Pt	8.92E+0	1.68E-2	2.24E-3	8.94E+0	2.27E-2	1.46E-1	3.83E-3	-7.86E+0	1.25E+0
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	1.98E+0	2.82E-4	2.40E-2	2.00E+0	3.80E-4	8.84E-3	5.71E-5	-1.23E+0	7.82E-1
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	1.98E+0	2.82E-4	2.40E-2	2.00E+0	3.80E-4	8.84E-3	5.71E-5	-1.23E+0	7.82E-1
PENRE	MJ	6.45E+0	2.08E-2	1.44E-3	6.48E+0	2.81E-2	1.97E-1	1.58E-3	-3.19E+0	3.51E+0
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	6.45E+0	2.08E-2	1.44E-3	6.48E+0	2.81E-2	1.97E-1	1.58E-3	-3.19E+0	3.51E+0
PET	MJ	8.43E+0	2.11E-2	2.55E-2	8.48E+0	2.85E-2	2.06E-1	1.64E-3	-4.42E+0	4.29E+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	2.44E-3	2.22E-6	1.46E-6	2.45E-3	3.00E-6	1.07E-4	1.84E-6	-9.83E-4	1.58E-3

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	2.09E-6	5.02E-8	2.73E-13	2.14E-6	6.78E-8	3.18E-7	1.81E-9	-1.42E-6	1.10E-6
NHWD	kg	1.67E-2	1.22E-3	1.05E-6	1.79E-2	1.64E-3	9.85E-3	6.57E-3	-6.46E-3	2.95E-2
RWD	kg	6.48E-6	1.33E-7	1.10E-13	6.61E-6	1.80E-7	7.48E-7	9.73E-9	-2.24E-6	5.30E-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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