

Environmental Profile

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

Ecochain v3.5.80



Product: 3020650 - Wafix PP Branch 88° WT 50x50x50 S/S/S
 Unit: 1 piece
 Manufacturer: Wavin - PL -Buk - Extra products

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



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.

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

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 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	1.13E-1	1.48E-3	1.45E-4	1.15E-1	1.89E-3	1.75E-1	8.88E-4	-1.05E-1	1.87E-1
GWP-f	kg CO2 eq	2.11E-1	1.48E-3	1.46E-4	2.13E-1	1.88E-3	6.87E-2	8.88E-4	-1.18E-1	1.66E-1
GWP-b	kg CO2 eq	-9.86E-2	8.98E-7	-1.54E-6	-9.86E-2	1.14E-6	1.06E-1	7.71E-7	1.33E-2	2.10E-2
GWP-luluc	kg CO2 eq	2.44E-4	5.24E-7	1.49E-7	2.45E-4	6.67E-7	1.15E-5	1.54E-8	-1.71E-4	8.59E-5
ODP	kg CFC11 eq	1.17E-8	3.41E-10	8.26E-12	1.20E-8	4.34E-10	1.79E-9	2.23E-11	-7.80E-9	6.47E-9
AP	mol H+ eq	9.08E-4	8.43E-6	1.47E-6	9.18E-4	1.07E-5	7.37E-5	5.33E-7	-4.24E-4	5.78E-4
EP-fw	kg P eq	5.56E-6	1.22E-8	8.24E-9	5.58E-6	1.55E-8	3.41E-7	7.04E-10	-3.09E-6	2.86E-6
EP-m	kg N eq	1.76E-4	3.01E-6	1.55E-7	1.79E-4	3.84E-6	2.27E-5	3.44E-7	-8.83E-5	1.18E-4
EP-T	mol N eq	1.94E-3	3.32E-5	1.85E-6	1.97E-3	4.23E-5	2.50E-4	2.16E-6	-1.00E-3	1.26E-3
POCP	kg NMVOC eq	7.62E-4	9.50E-6	6.28E-7	7.73E-4	1.21E-5	7.73E-5	8.11E-7	-3.92E-4	4.70E-4
ADP-mm	kg Sb eq	7.81E-6	3.83E-8	1.97E-8	7.87E-6	4.88E-8	2.87E-7	5.40E-10	-9.46E-7	7.26E-6
ADP-f	MJ	6.20E+0	2.27E-2	1.36E-3	6.22E+0	2.89E-2	2.12E-1	1.63E-3	-3.25E+0	3.22E+0
WDP	m3 depriv.	1.30E-1	6.97E-5	5.22E-5	1.30E-1	8.88E-5	3.82E-3	9.37E-6	-7.66E-2	5.75E-2
PM	disease inc.	1.01E-8	1.34E-10	9.08E-12	1.02E-8	1.70E-10	1.17E-9	1.12E-11	-5.46E-9	6.09E-9
IR	kBq U-235 eq	5.94E-3	9.92E-5	1.02E-6	6.04E-3	1.26E-4	6.81E-4	7.53E-6	-2.95E-3	3.91E-3
ETP-fw	CTUe	4.15E+0	1.84E-2	1.21E-2	4.18E+0	2.35E-2	2.56E-1	1.36E-3	-2.02E+0	2.44E+0
HTP-c	CTUh	1.57E-10	6.56E-13	6.17E-13	1.58E-10	8.36E-13	3.12E-11	4.07E-14	-6.05E-11	1.30E-10
HTP-nc	CTUh	2.69E-9	2.20E-11	1.57E-11	2.73E-9	2.80E-11	3.69E-10	8.83E-13	-5.64E-10	2.56E-9
SQP	Pt	9.28E+0	1.94E-2	2.24E-3	9.31E+0	2.48E-2	1.67E-1	4.18E-3	-9.77E+0	-2.68E-1
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	1.82E+0	3.26E-4	2.40E-2	1.84E+0	4.15E-4	1.01E-2	6.24E-5	-1.58E+0	2.78E-1
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	1.82E+0	3.26E-4	2.40E-2	1.84E+0	4.15E-4	1.01E-2	6.24E-5	-1.58E+0	2.78E-1
PENRE	MJ	6.65E+0	2.41E-2	1.44E-3	6.67E+0	3.07E-2	2.26E-1	1.73E-3	-3.50E+0	3.43E+0
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	6.65E+0	2.41E-2	1.44E-3	6.67E+0	3.07E-2	2.26E-1	1.73E-3	-3.50E+0	3.43E+0
PET	MJ	8.47E+0	2.44E-2	2.55E-2	8.52E+0	3.11E-2	2.36E-1	1.79E-3	-5.07E+0	3.71E+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	2.43E-3	2.57E-6	1.46E-6	2.44E-3	3.27E-6	1.19E-4	2.00E-6	-1.44E-3	1.12E-3

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	2.43E-6	5.81E-8	2.73E-13	2.49E-6	7.40E-8	3.75E-7	1.97E-9	-1.84E-6	1.10E-6
NHWD	kg	1.94E-2	1.41E-3	1.05E-6	2.08E-2	1.79E-3	1.09E-2	7.17E-3	-7.75E-3	3.29E-2
RWD	kg	6.14E-6	1.54E-7	1.10E-13	6.29E-6	1.97E-7	8.83E-7	1.06E-8	-2.92E-6	4.46E-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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