

Environmental Profile

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

Ecochain v3.5.80



Product: 3020646 - Wafix PP Branch 45° WT 50x50x50 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	1.67E-1	1.46E-3	1.45E-4	1.69E-1	2.60E-3	1.96E-1	1.22E-3	-1.37E-1	2.32E-1
GWP-f	kg CO2 eq	2.65E-1	1.46E-3	1.46E-4	2.67E-1	2.60E-3	8.95E-2	1.22E-3	-1.50E-1	2.10E-1
GWP-b	kg CO2 eq	-9.82E-2	8.85E-7	-1.54E-6	-9.82E-2	1.58E-6	1.07E-1	1.06E-6	1.40E-2	2.23E-2
GWP-luluc	kg CO2 eq	2.62E-4	5.16E-7	1.49E-7	2.62E-4	9.19E-7	1.54E-5	2.11E-8	-1.85E-4	9.40E-5
ODP	kg CFC11 eq	1.27E-8	3.36E-10	8.26E-12	1.31E-8	5.98E-10	2.30E-9	3.07E-11	-9.05E-9	6.96E-9
AP	mol H+ eq	1.10E-3	8.31E-6	1.47E-6	1.11E-3	1.48E-5	9.50E-5	7.33E-7	-5.15E-4	7.02E-4
EP-fw	kg P eq	6.26E-6	1.20E-8	8.24E-9	6.28E-6	2.14E-8	4.53E-7	9.62E-10	-3.47E-6	3.29E-6
EP-m	kg N eq	2.07E-4	2.97E-6	1.55E-7	2.10E-4	5.29E-6	2.89E-5	4.75E-7	-1.04E-4	1.40E-4
EP-T	mol N eq	2.29E-3	3.28E-5	1.85E-6	2.32E-3	5.83E-5	3.19E-4	2.98E-6	-1.18E-3	1.52E-3
POCP	kg NMVOC eq	9.23E-4	9.36E-6	6.28E-7	9.33E-4	1.67E-5	9.91E-5	1.12E-6	-4.70E-4	5.80E-4
ADP-mm	kg Sb eq	8.54E-6	3.77E-8	1.97E-8	8.59E-6	6.71E-8	3.71E-7	7.41E-10	-1.17E-6	7.86E-6
ADP-f	MJ	8.15E+0	2.24E-2	1.36E-3	8.18E+0	3.98E-2	2.81E-1	2.24E-3	-4.29E+0	4.21E+0
WDP	m3 depriv.	1.68E-1	6.87E-5	5.22E-5	1.68E-1	1.22E-4	5.18E-3	1.22E-5	-9.55E-2	7.83E-2
PM	disease inc.	1.16E-8	1.32E-10	9.08E-12	1.17E-8	2.34E-10	1.52E-9	1.54E-11	-6.23E-9	7.24E-9
IR	kBq U-235 eq	6.91E-3	9.78E-5	1.02E-6	7.01E-3	1.74E-4	8.85E-4	1.04E-5	-3.51E-3	4.57E-3
ETP-fw	CTUe	4.47E+0	1.82E-2	1.21E-2	4.50E+0	3.24E-2	3.32E-1	1.88E-3	-2.16E+0	2.70E+0
HTP-c	CTUh	1.45E-10	6.47E-13	6.17E-13	1.47E-10	1.15E-12	4.05E-11	5.54E-14	-6.63E-11	1.22E-10
HTP-nc	CTUh	2.81E-9	2.17E-11	1.57E-11	2.84E-9	3.86E-11	4.82E-10	1.21E-12	-1.03E-9	2.33E-9
SQP	Pt	9.39E+0	1.91E-2	2.24E-3	9.41E+0	3.41E-2	2.21E-1	5.75E-3	-9.94E+0	-2.75E-1
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	2.03E+0	3.21E-4	2.40E-2	2.05E+0	5.72E-4	1.34E-2	8.63E-5	-1.62E+0	4.52E-1
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	2.03E+0	3.21E-4	2.40E-2	2.05E+0	5.72E-4	1.34E-2	8.63E-5	-1.62E+0	4.52E-1
PENRE	MJ	8.75E+0	2.38E-2	1.44E-3	8.77E+0	4.23E-2	2.99E-1	2.38E-3	-4.62E+0	4.50E+0
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	8.75E+0	2.38E-2	1.44E-3	8.77E+0	4.23E-2	2.99E-1	2.38E-3	-4.62E+0	4.50E+0
PET	MJ	1.08E+1	2.41E-2	2.55E-2	1.08E+1	4.29E-2	3.12E-1	2.47E-3	-6.23E+0	4.95E+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	3.00E-3	2.53E-6	1.46E-6	3.01E-3	4.51E-6	1.59E-4	2.76E-6	-1.74E-3	1.44E-3

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	2.50E-6	5.72E-8	2.73E-13	2.56E-6	1.02E-7	4.84E-7	2.71E-9	-1.91E-6	1.24E-6
NHWD	kg	2.01E-2	1.39E-3	1.05E-6	2.15E-2	2.47E-3	1.42E-2	9.87E-3	-8.46E-3	3.96E-2
RWD	kg	6.98E-6	1.52E-7	1.10E-13	7.13E-6	2.71E-7	1.14E-6	1.46E-8	-3.42E-6	5.15E-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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