

Environmental Profile

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

Ecochain v3.5.80



Product: 3020639 - Wafix PP Branch 45° 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	1.31E-1	1.46E-3	1.45E-4	1.33E-1	1.97E-3	1.81E-1	9.25E-4	-1.10E-1	2.07E-1
GWP-f	kg CO2 eq	2.29E-1	1.46E-3	1.46E-4	2.31E-1	1.96E-3	7.61E-2	9.25E-4	-1.22E-1	1.87E-1
GWP-b	kg CO2 eq	-9.83E-2	8.87E-7	-1.54E-6	-9.83E-2	1.19E-6	1.05E-1	8.04E-7	1.30E-2	2.00E-2
GWP-luluc	kg CO2 eq	2.42E-4	5.17E-7	1.49E-7	2.43E-4	6.95E-7	1.18E-5	1.61E-8	-1.68E-4	8.74E-5
ODP	kg CFC11 eq	1.37E-8	3.37E-10	8.26E-12	1.41E-8	4.53E-10	1.81E-9	2.32E-11	-8.15E-9	8.20E-9
AP	mol H+ eq	9.97E-4	8.32E-6	1.47E-6	1.01E-3	1.12E-5	7.47E-5	5.56E-7	-4.23E-4	6.71E-4
EP-fw	kg P eq	5.82E-6	1.20E-8	8.24E-9	5.84E-6	1.62E-8	3.47E-7	7.32E-10	-2.97E-6	3.24E-6
EP-m	kg N eq	1.87E-4	2.98E-6	1.55E-7	1.90E-4	4.00E-6	2.31E-5	3.58E-7	-8.80E-5	1.29E-4
EP-T	mol N eq	2.08E-3	3.28E-5	1.85E-6	2.11E-3	4.41E-5	2.54E-4	2.25E-6	-1.00E-3	1.41E-3
POCP	kg NMVOC eq	8.26E-4	9.38E-6	6.28E-7	8.36E-4	1.26E-5	7.87E-5	8.45E-7	-3.87E-4	5.41E-4
ADP-mm	kg Sb eq	1.10E-5	3.78E-8	1.97E-8	1.11E-5	5.08E-8	2.88E-7	5.63E-10	-9.63E-7	1.05E-5
ADP-f	MJ	6.80E+0	2.24E-2	1.36E-3	6.83E+0	3.01E-2	2.17E-1	1.70E-3	-3.40E+0	3.68E+0
WDP	m3 depriv.	1.45E-1	6.88E-5	5.22E-5	1.45E-1	9.25E-5	3.97E-3	9.68E-6	-7.71E-2	7.24E-2
PM	disease inc.	1.06E-8	1.32E-10	9.08E-12	1.07E-8	1.77E-10	1.19E-9	1.17E-11	-5.33E-9	6.79E-9
IR	kBq U-235 eq	6.87E-3	9.80E-5	1.02E-6	6.97E-3	1.32E-4	6.90E-4	7.85E-6	-3.01E-3	4.79E-3
ETP-fw	CTUe	4.27E+0	1.82E-2	1.21E-2	4.30E+0	2.45E-2	2.58E-1	1.42E-3	-1.89E+0	2.69E+0
HTP-c	CTUh	1.24E-10	6.48E-13	6.17E-13	1.25E-10	8.71E-13	3.26E-11	4.23E-14	-6.05E-11	9.82E-11
HTP-nc	CTUh	2.48E-9	2.17E-11	1.57E-11	2.52E-9	2.92E-11	3.78E-10	9.19E-13	-1.06E-9	1.87E-9
SQP	Pt	9.33E+0	1.92E-2	2.24E-3	9.35E+0	2.58E-2	1.70E-1	4.35E-3	-9.61E+0	-5.72E-2
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	2.06E+0	3.22E-4	2.40E-2	2.08E+0	4.32E-4	1.02E-2	6.51E-5	-1.55E+0	5.45E-1
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	2.06E+0	3.22E-4	2.40E-2	2.08E+0	4.32E-4	1.02E-2	6.51E-5	-1.55E+0	5.45E-1
PENRE	MJ	7.30E+0	2.38E-2	1.44E-3	7.32E+0	3.20E-2	2.31E-1	1.80E-3	-3.66E+0	3.93E+0
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	7.30E+0	2.38E-2	1.44E-3	7.32E+0	3.20E-2	2.31E-1	1.80E-3	-3.66E+0	3.93E+0
PET	MJ	9.35E+0	2.41E-2	2.55E-2	9.40E+0	3.24E-2	2.42E-1	1.87E-3	-5.21E+0	4.47E+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	2.75E-3	2.54E-6	1.46E-6	2.75E-3	3.41E-6	1.24E-4	2.09E-6	-1.44E-3	1.45E-3

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	2.35E-6	5.73E-8	2.73E-13	2.41E-6	7.71E-8	3.79E-7	2.06E-9	-1.62E-6	1.25E-6
NHWD	kg	1.90E-2	1.39E-3	1.05E-6	2.04E-2	1.87E-3	1.13E-2	7.47E-3	-7.49E-3	3.36E-2
RWD	kg	7.22E-6	1.52E-7	1.10E-13	7.37E-6	2.05E-7	8.92E-7	1.11E-8	-2.96E-6	5.53E-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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