

Environmental Profile

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

Ecochain v3.5.80



Product: 3020729 - Wafix PP Reducer WT 50x32 Short
 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	5.58E-2	3.71E-4	1.45E-4	5.63E-2	7.75E-4	8.30E-2	3.65E-4	-4.71E-2	9.33E-2
GWP-f	kg CO2 eq	1.05E-1	3.71E-4	1.46E-4	1.05E-1	7.74E-4	3.19E-2	3.65E-4	-5.03E-2	8.81E-2
GWP-b	kg CO2 eq	-4.92E-2	2.25E-7	-1.54E-6	-4.92E-2	4.70E-7	5.11E-2	3.16E-7	3.30E-3	5.25E-3
GWP-luluc	kg CO2 eq	9.96E-5	1.31E-7	1.49E-7	9.99E-5	2.74E-7	4.68E-6	6.39E-9	-5.84E-5	4.65E-5
ODP	kg CFC11 eq	6.04E-9	8.55E-11	8.26E-12	6.13E-9	1.78E-10	7.11E-10	9.16E-12	-3.49E-9	3.54E-9
AP	mol H+ eq	4.69E-4	2.11E-6	1.47E-6	4.72E-4	4.41E-6	2.97E-5	2.19E-7	-1.71E-4	3.36E-4
EP-fw	kg P eq	2.66E-6	3.05E-9	8.24E-9	2.67E-6	6.37E-9	1.38E-7	2.90E-10	-1.11E-6	1.71E-6
EP-m	kg N eq	8.49E-5	7.56E-7	1.55E-7	8.58E-5	1.58E-6	9.16E-6	1.41E-7	-3.59E-5	6.08E-5
EP-T	mol N eq	9.58E-4	8.34E-6	1.85E-6	9.69E-4	1.74E-5	1.01E-4	8.89E-7	-4.09E-4	6.79E-4
POCP	kg NMVOC eq	3.81E-4	2.38E-6	6.28E-7	3.85E-4	4.97E-6	3.12E-5	3.33E-7	-1.62E-4	2.59E-4
ADP-mm	kg Sb eq	4.85E-6	9.60E-9	1.97E-8	4.88E-6	2.00E-8	1.13E-7	2.23E-10	-3.96E-7	4.62E-6
ADP-f	MJ	3.05E+0	5.70E-3	1.36E-3	3.06E+0	1.19E-2	8.57E-2	6.69E-4	-1.37E+0	1.78E+0
WDP	m3 depriv.	6.65E-2	1.75E-5	5.22E-5	6.65E-2	3.65E-5	1.56E-3	4.02E-6	-2.86E-2	3.96E-2
PM	disease inc.	4.91E-9	3.35E-11	9.08E-12	4.95E-9	6.99E-11	4.69E-10	4.60E-12	-2.15E-9	3.35E-9
IR	kBq U-235 eq	3.01E-3	2.49E-5	1.02E-6	3.04E-3	5.19E-5	2.73E-4	3.09E-6	-1.15E-3	2.22E-3
ETP-fw	CTUe	1.80E+0	4.63E-3	1.21E-2	1.82E+0	9.65E-3	1.01E-1	5.60E-4	-6.70E-1	1.26E+0
HTP-c	CTUh	7.16E-11	1.65E-13	6.17E-13	7.23E-11	3.43E-13	1.32E-11	1.68E-14	-2.67E-11	5.91E-11
HTP-nc	CTUh	1.35E-9	5.51E-12	1.57E-11	1.38E-9	1.15E-11	1.51E-10	3.64E-13	-3.19E-10	1.22E-9
SQP	Pt	4.53E+0	4.87E-3	2.24E-3	4.53E+0	1.02E-2	6.77E-2	1.71E-3	-4.19E+0	4.23E-1
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	1.12E+0	8.17E-5	2.40E-2	1.15E+0	1.70E-4	4.07E-3	2.56E-5	-6.61E-1	4.90E-1
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	1.12E+0	8.17E-5	2.40E-2	1.15E+0	1.70E-4	4.07E-3	2.56E-5	-6.61E-1	4.90E-1
PENRE	MJ	3.27E+0	6.05E-3	1.44E-3	3.28E+0	1.26E-2	9.13E-2	7.10E-4	-1.48E+0	1.90E+0
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	3.27E+0	6.05E-3	1.44E-3	3.28E+0	1.26E-2	9.13E-2	7.10E-4	-1.48E+0	1.90E+0
PET	MJ	4.39E+0	6.13E-3	2.55E-2	4.42E+0	1.28E-2	9.54E-2	7.36E-4	-2.14E+0	2.40E+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	1.26E-3	6.45E-7	1.46E-6	1.26E-3	1.34E-6	4.90E-5	8.22E-7	-5.15E-4	7.98E-4

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	1.13E-6	1.46E-8	2.73E-13	1.14E-6	3.04E-8	1.50E-7	8.12E-10	-7.60E-7	5.64E-7
NHWD	kg	9.26E-3	3.53E-4	1.05E-6	9.61E-3	7.36E-4	4.59E-3	2.94E-3	-3.29E-3	1.46E-2
RWD	kg	3.12E-6	3.87E-8	1.10E-13	3.16E-6	8.08E-8	3.52E-7	4.36E-9	-1.15E-6	2.45E-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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