

Environmental Profile

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

Ecochain v3.5.80



Product: 3043906 - Wafix PP Reducer WT 50x32
 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	7.01E-2	4.88E-4	1.45E-4	7.07E-2	8.54E-4	8.97E-2	4.02E-4	-4.98E-2	1.12E-1
GWP-f	kg CO2 eq	1.19E-1	4.87E-4	1.46E-4	1.20E-1	8.53E-4	3.63E-2	4.02E-4	-5.81E-2	9.91E-2
GWP-b	kg CO2 eq	-4.91E-2	2.96E-7	-1.54E-6	-4.91E-2	5.18E-7	5.33E-2	3.49E-7	8.45E-3	1.27E-2
GWP-luluc	kg CO2 eq	1.32E-4	1.73E-7	1.49E-7	1.33E-4	3.02E-7	5.28E-6	7.02E-9	-9.48E-5	4.35E-5
ODP	kg CFC11 eq	6.94E-9	1.12E-10	8.26E-12	7.06E-9	1.97E-10	8.47E-10	1.01E-11	-4.12E-9	4.00E-9
AP	mol H+ eq	5.34E-4	2.78E-6	1.47E-6	5.38E-4	4.86E-6	3.50E-5	2.41E-7	-2.07E-4	3.71E-4
EP-fw	kg P eq	3.20E-6	4.01E-9	8.24E-9	3.21E-6	7.02E-9	1.57E-7	3.19E-10	-1.60E-6	1.77E-6
EP-m	kg N eq	1.00E-4	9.93E-7	1.55E-7	1.01E-4	1.74E-6	1.09E-5	1.55E-7	-4.38E-5	7.04E-5
EP-T	mol N eq	1.11E-3	1.09E-5	1.85E-6	1.13E-3	1.92E-5	1.21E-4	9.79E-7	-4.99E-4	7.69E-4
POCP	kg NMVOC eq	4.32E-4	3.13E-6	6.28E-7	4.35E-4	5.48E-6	3.71E-5	3.67E-7	-1.89E-4	2.89E-4
ADP-mm	kg Sb eq	5.10E-6	1.26E-8	1.97E-8	5.13E-6	2.21E-8	1.34E-7	2.45E-10	-4.55E-7	4.83E-6
ADP-f	MJ	3.40E+0	7.48E-3	1.36E-3	3.41E+0	1.31E-2	9.87E-2	7.38E-4	-1.55E+0	1.97E+0
WDP	m3 depriv.	7.42E-2	2.30E-5	5.22E-5	7.43E-2	4.02E-5	1.76E-3	4.33E-6	-3.81E-2	3.80E-2
PM	disease inc.	5.65E-9	4.40E-11	9.08E-12	5.71E-9	7.70E-11	5.51E-10	5.07E-12	-2.74E-9	3.60E-9
IR	kBq U-235 eq	3.42E-3	3.27E-5	1.02E-6	3.46E-3	5.72E-5	3.19E-4	3.41E-6	-1.52E-3	2.32E-3
ETP-fw	CTUe	2.57E+0	6.08E-3	1.21E-2	2.59E+0	1.06E-2	1.20E-1	6.17E-4	-1.08E+0	1.64E+0
HTP-c	CTUh	8.34E-11	2.16E-13	6.17E-13	8.43E-11	3.78E-13	1.51E-11	1.85E-14	-3.05E-11	6.94E-11
HTP-nc	CTUh	1.60E-9	7.24E-12	1.57E-11	1.63E-9	1.27E-11	1.75E-10	4.00E-13	-3.90E-10	1.42E-9
SQP	Pt	4.76E+0	6.40E-3	2.24E-3	4.77E+0	1.12E-2	7.71E-2	1.89E-3	-5.12E+0	-2.59E-1
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	1.27E+0	1.07E-4	2.40E-2	1.30E+0	1.88E-4	4.62E-3	2.82E-5	-8.30E-1	4.71E-1
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	1.27E+0	1.07E-4	2.40E-2	1.30E+0	1.88E-4	4.62E-3	2.82E-5	-8.30E-1	4.71E-1
PENRE	MJ	3.65E+0	7.94E-3	1.44E-3	3.66E+0	1.39E-2	1.05E-1	7.83E-4	-1.67E+0	2.11E+0
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	3.65E+0	7.94E-3	1.44E-3	3.66E+0	1.39E-2	1.05E-1	7.83E-4	-1.67E+0	2.11E+0
PET	MJ	4.92E+0	8.05E-3	2.55E-2	4.96E+0	1.41E-2	1.10E-1	8.11E-4	-2.50E+0	2.58E+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	1.43E-3	8.47E-7	1.46E-6	1.43E-3	1.48E-6	5.58E-5	9.06E-7	-7.41E-4	7.50E-4

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	1.30E-6	1.91E-8	2.73E-13	1.32E-6	3.35E-8	1.77E-7	8.94E-10	-9.03E-7	6.25E-7
NHWD	kg	1.08E-2	4.64E-4	1.05E-6	1.12E-2	8.11E-4	5.27E-3	3.24E-3	-3.81E-3	1.67E-2
RWD	kg	3.52E-6	5.09E-8	1.10E-13	3.57E-6	8.90E-8	4.15E-7	4.81E-9	-1.51E-6	2.57E-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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