

Environmental Profile

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

Ecochain v3.5.80



Product: 3043883 - Wafix PP Reducer GY 40x32 S/SP
 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	5.44E-2	5.34E-4	1.45E-4	5.51E-2	8.48E-4	8.70E-2	3.99E-4	-4.87E-2	9.47E-2
GWP-f	kg CO2 eq	1.04E-1	5.33E-4	1.46E-4	1.04E-1	8.48E-4	3.39E-2	3.99E-4	-5.57E-2	8.38E-2
GWP-b	kg CO2 eq	-4.93E-2	3.24E-7	-1.54E-6	-4.93E-2	5.15E-7	5.31E-2	3.47E-7	7.00E-3	1.08E-2
GWP-luluc	kg CO2 eq	1.23E-4	1.89E-7	1.49E-7	1.23E-4	3.00E-7	5.20E-6	6.97E-9	-8.68E-5	4.21E-5
ODP	kg CFC11 eq	5.98E-9	1.23E-10	8.26E-12	6.11E-9	1.95E-10	8.22E-10	1.00E-11	-3.88E-9	3.25E-9
AP	mol H+ eq	4.59E-4	3.04E-6	1.47E-6	4.63E-4	4.83E-6	3.39E-5	2.40E-7	-1.99E-4	3.03E-4
EP-fw	kg P eq	2.80E-6	4.39E-9	8.24E-9	2.82E-6	6.97E-9	1.54E-7	3.17E-10	-1.49E-6	1.49E-6
EP-m	kg N eq	8.75E-5	1.09E-6	1.55E-7	8.88E-5	1.73E-6	1.06E-5	1.54E-7	-4.20E-5	5.92E-5
EP-T	mol N eq	9.70E-4	1.20E-5	1.85E-6	9.84E-4	1.90E-5	1.16E-4	9.73E-7	-4.78E-4	6.42E-4
POCP	kg NMVOC eq	3.78E-4	3.43E-6	6.28E-7	3.82E-4	5.44E-6	3.58E-5	3.65E-7	-1.83E-4	2.41E-4
ADP-mm	kg Sb eq	4.38E-6	1.38E-8	1.97E-8	4.41E-6	2.19E-8	1.31E-7	2.43E-10	-4.45E-7	4.12E-6
ADP-f	MJ	2.99E+0	8.19E-3	1.36E-3	3.00E+0	1.30E-2	9.67E-2	7.33E-4	-1.51E+0	1.60E+0
WDP	m3 depriv.	6.41E-2	2.51E-5	5.22E-5	6.41E-2	3.99E-5	1.73E-3	4.31E-6	-3.61E-2	2.98E-2
PM	disease inc.	4.96E-9	4.82E-11	9.08E-12	5.02E-9	7.65E-11	5.36E-10	5.04E-12	-2.61E-9	3.03E-9
IR	kBq U-235 eq	2.99E-3	3.58E-5	1.02E-6	3.02E-3	5.69E-5	3.11E-4	3.39E-6	-1.44E-3	1.95E-3
ETP-fw	CTUe	2.19E+0	6.65E-3	1.21E-2	2.21E+0	1.06E-2	1.17E-1	6.13E-4	-9.86E-1	1.35E+0
HTP-c	CTUh	7.10E-11	2.37E-13	6.17E-13	7.18E-11	3.76E-13	1.47E-11	1.84E-14	-2.96E-11	5.72E-11
HTP-nc	CTUh	1.33E-9	7.93E-12	1.57E-11	1.36E-9	1.26E-11	1.70E-10	3.98E-13	-4.15E-10	1.13E-9
SQP	Pt	4.68E+0	7.01E-3	2.24E-3	4.69E+0	1.11E-2	7.55E-2	1.88E-3	-4.91E+0	-1.38E-1
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	1.15E+0	1.17E-4	2.40E-2	1.17E+0	1.87E-4	4.53E-3	2.80E-5	-7.93E-1	3.85E-1
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	1.15E+0	1.17E-4	2.40E-2	1.17E+0	1.87E-4	4.53E-3	2.80E-5	-7.93E-1	3.85E-1
PENRE	MJ	3.21E+0	8.69E-3	1.44E-3	3.22E+0	1.38E-2	1.03E-1	7.78E-4	-1.63E+0	1.71E+0
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	3.21E+0	8.69E-3	1.44E-3	3.22E+0	1.38E-2	1.03E-1	7.78E-4	-1.63E+0	1.71E+0
PET	MJ	4.36E+0	8.81E-3	2.55E-2	4.39E+0	1.40E-2	1.07E-1	8.06E-4	-2.42E+0	2.10E+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	1.23E-3	9.27E-7	1.46E-6	1.23E-3	1.47E-6	5.46E-5	9.01E-7	-6.92E-4	5.95E-4

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	1.15E-6	2.09E-8	2.73E-13	1.17E-6	3.33E-8	1.72E-7	8.89E-10	-8.30E-7	5.44E-7
NHWD	kg	9.25E-3	5.08E-4	1.05E-6	9.76E-3	8.06E-4	5.08E-3	3.22E-3	-3.71E-3	1.52E-2
RWD	kg	3.09E-6	5.57E-8	1.10E-13	3.14E-6	8.85E-8	4.04E-7	4.78E-9	-1.43E-6	2.21E-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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