

# Environmental Profile

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

Ecochain v3.5.80



Product: 3043888 - Wafix PP Reducer GY 75x50 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	1.32E-1	5.85E-4	1.45E-4	1.33E-1	1.82E-3	1.16E-1	8.59E-4	-9.37E-2	1.58E-1
GWP-f	kg CO2 eq	1.81E-1	5.84E-4	1.46E-4	1.82E-1	1.82E-3	6.25E-2	8.59E-4	-1.02E-1	1.44E-1
GWP-b	kg CO2 eq	-4.88E-2	3.55E-7	-1.54E-6	-4.88E-2	1.11E-6	5.39E-2	7.47E-7	8.84E-3	1.40E-2
GWP-luluc	kg CO2 eq	1.52E-4	2.07E-7	1.49E-7	1.53E-4	6.45E-7	1.07E-5	1.47E-8	-1.09E-4	5.51E-5
ODP	kg CFC11 eq	7.20E-9	1.35E-10	8.26E-12	7.34E-9	4.20E-10	1.57E-9	2.15E-11	-5.72E-9	3.64E-9
AP	mol H+ eq	7.35E-4	3.33E-6	1.47E-6	7.40E-4	1.04E-5	6.50E-5	5.14E-7	-3.37E-4	4.79E-4
EP-fw	kg P eq	4.05E-6	4.81E-9	8.24E-9	4.06E-6	1.50E-8	3.15E-7	6.72E-10	-2.18E-6	2.21E-6
EP-m	kg N eq	1.35E-4	1.19E-6	1.55E-7	1.36E-4	3.71E-6	1.97E-5	3.34E-7	-6.69E-5	9.30E-5
EP-T	mol N eq	1.49E-3	1.31E-5	1.85E-6	1.51E-3	4.09E-5	2.17E-4	2.09E-6	-7.55E-4	1.01E-3
POCP	kg NMVOC eq	6.14E-4	3.75E-6	6.28E-7	6.18E-4	1.17E-5	6.75E-5	7.83E-7	-3.06E-4	3.92E-4
ADP-mm	kg Sb eq	4.48E-6	1.51E-8	1.97E-8	4.52E-6	4.71E-8	2.54E-7	5.19E-10	-7.58E-7	4.06E-6
ADP-f	MJ	5.65E+0	8.97E-3	1.36E-3	5.66E+0	2.80E-2	1.94E-1	1.57E-3	-2.96E+0	2.93E+0
WDP	m3 depriv.	1.15E-1	2.75E-5	5.22E-5	1.15E-1	8.58E-5	3.61E-3	8.16E-6	-6.38E-2	5.52E-2
PM	disease inc.	7.40E-9	5.27E-11	9.08E-12	7.46E-9	1.64E-10	1.05E-9	1.08E-11	-3.89E-9	4.80E-9
IR	kBq U-235 eq	4.20E-3	3.92E-5	1.02E-6	4.25E-3	1.22E-4	6.07E-4	7.29E-6	-2.22E-3	2.76E-3
ETP-fw	CTUe	2.95E+0	7.28E-3	1.21E-2	2.97E+0	2.27E-2	2.28E-1	1.32E-3	-1.33E+0	1.89E+0
HTP-c	CTUh	1.05E-10	2.59E-13	6.17E-13	1.05E-10	8.08E-13	2.77E-11	3.86E-14	-3.84E-11	9.56E-11
HTP-nc	CTUh	2.12E-9	8.68E-12	1.57E-11	2.14E-9	2.71E-11	3.33E-10	8.48E-13	-5.68E-10	1.93E-9
SQP	Pt	4.85E+0	7.67E-3	2.24E-3	4.86E+0	2.39E-2	1.53E-1	4.03E-3	-5.31E+0	-2.66E-1
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	1.56E+0	1.29E-4	2.40E-2	1.59E+0	4.01E-4	9.30E-3	6.08E-5	-8.75E-1	7.23E-1
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	1.56E+0	1.29E-4	2.40E-2	1.59E+0	4.01E-4	9.30E-3	6.08E-5	-8.75E-1	7.23E-1
PENRE	MJ	6.06E+0	9.52E-3	1.44E-3	6.07E+0	2.97E-2	2.06E-1	1.67E-3	-3.19E+0	3.13E+0
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	6.06E+0	9.52E-3	1.44E-3	6.07E+0	2.97E-2	2.06E-1	1.67E-3	-3.19E+0	3.13E+0
PET	MJ	7.63E+0	9.65E-3	2.55E-2	7.66E+0	3.01E-2	2.16E-1	1.73E-3	-4.06E+0	3.85E+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	1.99E-3	1.01E-6	1.46E-6	1.99E-3	3.16E-6	1.10E-4	1.94E-6	-1.14E-3	9.68E-4

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	1.49E-6	2.29E-8	2.73E-13	1.51E-6	7.15E-8	3.32E-7	1.90E-9	-1.25E-6	6.71E-7
NHWD	kg	1.21E-2	5.56E-4	1.05E-6	1.27E-2	1.73E-3	9.84E-3	6.93E-3	-5.01E-3	2.62E-2
RWD	kg	4.07E-6	6.10E-8	1.10E-13	4.13E-6	1.90E-7	7.81E-7	1.03E-8	-2.14E-6	2.97E-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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