Environmental Profile

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

Ecochain v3.5.80

Product:	3043875 - Wafix PP Repair Socket GY 40
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

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

Results

Environmental impact	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
GWP-total	kg CO2 eq	7.23E-2	8.83E-4	1.45E-4	7.34E-2	1.01E-3	9.21E-2	4.76E-4	-5.73E-2	1.10E-1
GWP-f	kg CO2 eq	1.21E-1	8.83E-4	1.46E-4	1.22E-1	1.01E-3	3.98E-2	4.76E-4	-6.33E-2	1.00E-1
GWP-b	kg CO2 eq	-4.91E-2	5.36E-7	-1.54E-6	-4.91E-2	6.14E-7	5.23E-2	4.14E-7	6.05E-3	9.28E-3
GWP-luluc	kg CO2 eq	1.20E-4	3.12E-7	1.49E-7	1.21E-4	3.58E-7	6.09E-6	8.26E-9	-8.00E-5	4.74E-5
ODP	kg CFC11 eq	7.80E-9	2.03E-10	8.26E-12	8.01E-9	2.33E-10	9.24E-10	1.20E-11	-4.15E-9	5.03E-9
AP	mol H+ eq	5.35E-4	5.03E-6	1.47E-6	5.41E-4	5.76E-6	3.84E-5	2.86E-7	-2.15E-4	3.71E-4
EP-fw	kg P eq	3.12E-6	7.26E-9	8.24E-9	3.13E-6	8.32E-9	1.79E-7	3.77E-10	-1.47E-6	1.85E-6
EP-m	kg N eq	9.87E-5	1.80E-6	1.55E-7	1.01E-4	2.06E-6	1.18E-5	1.85E-7	-4.45E-5	7.02E-5
EP-T	mol N eq	1.11E-3	1.98E-5	1.85E-6	1.13E-3	2.27E-5	1.30E-4	1.16E-6	-5.05E-4	7.76E-4
POCP	kg NMVOC eq	4.41E-4	5.67E-6	6.28E-7	4.47E-4	6.49E-6	4.03E-5	4.35E-7	-1.99E-4	2.96E-4
ADP-mm	kg Sb eq	6.85E-6	2.28E-8	1.97E-8	6.89E-6	2.61E-8	1.48E-7	2.90E-10	-4.87E-7	6.58E-6
ADP-f	MJ	3.57E+0	1.35E-2	1.36E-3	3.59E+0	1.55E-2	1.11E-1	8.74E-4	-1.75E+0	1.97E+0
WDP	m3 depriv.	7.69E-2	4.16E-5	5.22E-5	7.70E-2	4.76E-5	2.04E-3	4.96E-6	-3.86E-2	4.05E-2
PM	disease inc.	5.69E-9	7.97E-11	9.08E-12	5.78E-9	9.12E-11	6.10E-10	6.01E-12	-2.67E-9	3.82E-9
IR	kBq U-235 eq	3.83E-3	5.92E-5	1.02E-6	3.89E-3	6.78E-5	3.54E-4	4.04E-6	-1.48E-3	2.83E-3
ETP-fw	CTUe	2.23E+0	1.10E-2	1.21E-2	2.25E+0	1.26E-2	1.32E-1	7.31E-4	-9.24E-1	1.47E+0
HTP-c	CTUh	7.47E-11	3.92E-13	6.17E-13	7.57E-11	4.48E-13	1.67E-11	2.18E-14	-3.02E-11	6.27E-11
HTP-nc	CTUh	1.43E-9	1.31E-11	1.57E-11	1.46E-9	1.50E-11	1.95E-10	4.73E-13	-4.27E-10	1.25E-9
SQP	Pt	4.67E+0	1.16E-2	2.24E-3	4.69E+0	1.33E-2	8.77E-2	2.24E-3	-4.70E+0	8.95E-2
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	1.04E+0	1.94E-4	2.40E-2	1.06E+0	2.23E-4	5.29E-3	3.35E-5	-7.56E-1	3.13E-1
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	1.04E+0	1.94E-4	2.40E-2	1.06E+0	2.23E-4	5.29E-3	3.35E-5	-7.56E-1	3.13E-1
PENRE	MJ	3.83E+0	1.44E-2	1.44E-3	3.85E+0	1.65E-2	1.19E-1	9.27E-4	-1.89E+0	2.10E+0
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	3.83E+0	1.44E-2	1.44E-3	3.85E+0	1.65E-2	1.19E-1	9.27E-4	-1.89E+0	2.10E+0
PET	MJ	4.87E+0	1.46E-2	2.55E-2	4.91E+0	1.67E-2	1.24E-1	9.61E-4	-2.64E+0	2.41E+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	1.47E-3	1.53E-6	1.46E-6	1.48E-3	1.76E-6	6.35E-5	1.07E-6	-7.10E-4	8.33E-4

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	1.32E-6	3.46E-8	2.73E-13	1.35E-6	3.97E-8	1.94E-7	1.06E-9	-8.84E-7	7.05E-7
NHWD	kg	1.06E-2	8.40E-4	1.05E-6	1.15E-2	9.62E-4	5.86E-3	3.84E-3	-3.78E-3	1.84E-2
RWD	kg	4.08E-6	9.21E-8	1.10E-13	4.18E-6	1.06E-7	4.57E-7	5.70E-9	-1.46E-6	3.28E-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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