

Environmental Profile

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

Ecochain v3.5.64



Product: 3018468 - ED Tech PP Pipe HTEM 90 L=0,25 S/PL
Unit: 1 piece
Manufacturer: Wavin - IT - SM Maddalena

PP SWR (ED Tech) products made of PP for waste water discharge are the ideal solution for anyone who wants a quick and easy connection system. A push-fit system, made watertight using elastomeric seals. Triple-layer pipes, with a white inner layer for easier inspection. Low linear expansion.

LCA standard: EN15804+A2 (2019)
Standard database: Worldwide - Ecoinvent v 3.6 Cut-Off
Externally verified: Yes
Issue date: 24-11-2022
End of validity: 24-11-2027
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 - IT - SM Maddalena (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					Use stage							End-of-Life stage				
A1 Raw material supply A2 Transport A3 Manufacturing					B1 Use B2 Maintenance B3 Repair B4 Replacement B5 Refurbishment B6 Operational energy use B7 Operational water use							C1 De-construction demolition C2 Transport C3 Waste processing C4 Disposal				
Construction process stage												Benefits and loads beyond the system boundaries				
A4 Transport gate to site A5 Assembly / Construction installation process												D Reuse- Recovery- Recycling- potential				

Environmental impacts and parameters

GWP-total = EF Climate Change [kg CO2 eq]; **GWP-f** = EF Climate change - Fossil [kg CO2 eq]; **GWP-b** = EF Climate Change - Biogenic [kg CO2 eq]; **GWP-luluc** = EF 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	3.19E-1	2.75E-2	2.11E-2	3.68E-1	4.94E-3	2.56E-1	2.04E-3	-1.93E-1	4.38E-1
GWP-f	kg CO2 eq	3.92E-1	2.74E-2	1.89E-2	4.38E-1	4.94E-3	1.66E-1	2.04E-3	-2.28E-1	3.82E-1
GWP-b	kg CO2 eq	-7.24E-2	1.67E-5	1.19E-3	-7.12E-2	3.00E-6	8.95E-2	1.83E-6	3.62E-2	5.45E-2
GWP-luluc	kg CO2 eq	3.61E-4	9.71E-6	1.07E-3	1.44E-3	1.75E-6	2.81E-5	3.82E-8	-3.28E-4	1.15E-3
ODP	kg CFC11 eq	2.19E-8	6.32E-9	2.05E-9	3.03E-8	1.14E-9	4.16E-9	5.77E-11	-1.25E-8	2.32E-8
AP	mol H+ eq	1.69E-3	1.56E-4	6.36E-5	1.91E-3	2.81E-5	1.71E-4	1.36E-6	-7.72E-4	1.34E-3
EP-fw	kg P eq	8.97E-6	2.26E-7	2.52E-7	9.44E-6	4.07E-8	8.25E-7	1.72E-9	-5.75E-6	4.56E-6
EP-m	kg N eq	3.04E-4	5.59E-5	1.22E-5	3.72E-4	1.01E-5	5.17E-5	9.87E-7	-1.53E-4	2.82E-4
EP-T	mol N eq	3.34E-3	6.16E-4	1.34E-4	4.09E-3	1.11E-4	5.68E-4	5.51E-6	-1.73E-3	3.04E-3
POCP	kg NMVOC eq	1.35E-3	1.76E-4	4.26E-5	1.57E-3	3.17E-5	1.77E-4	2.02E-6	-6.72E-4	1.11E-3
ADP-mm	kg Sb eq	2.16E-5	7.10E-7	3.45E-7	2.27E-5	1.28E-7	6.71E-7	1.36E-9	-2.16E-6	2.13E-5
ADP-f	MJ	1.25E+1	4.21E-1	2.60E-1	1.32E+1	7.58E-2	5.10E-1	4.17E-3	-6.56E+0	7.23E+0
WDP	m3 depriv.	2.60E-1	1.29E-3	5.96E-2	3.21E-1	2.33E-4	9.81E-3	2.23E-5	-1.57E-1	1.74E-1
PM	disease inc.	1.71E-8	2.48E-9	7.71E-10	2.04E-8	4.46E-10	2.75E-9	2.85E-11	-9.22E-9	1.44E-8
IR	kBq U-235 eq	1.16E-2	1.84E-3	2.54E-4	1.36E-2	3.31E-4	1.59E-3	1.92E-5	-5.66E-3	9.93E-3
ETP-fw	CTUe	7.63E+0	3.42E-1	3.12E-1	8.28E+0	6.16E-2	6.59E-1	3.81E-3	-3.86E+0	5.15E+0
HTP-c	CTUh	1.61E-10	1.22E-11	1.90E-11	1.92E-10	2.19E-12	6.88E-11	9.90E-14	-8.00E-11	1.83E-10
HTP-nc	CTUh	3.44E-9	4.08E-10	3.44E-10	4.19E-9	7.34E-11	8.63E-10	2.27E-12	-1.84E-9	3.29E-9
SQP	Pt	8.31E+0	3.60E-1	5.38E-2	8.73E+0	6.49E-2	3.99E-1	1.05E-2	-1.19E+1	-2.73E+0
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	1.41E+0	6.04E-3	5.79E-1	1.99E+0	1.09E-3	2.43E-2	1.53E-4	-2.04E+0	-2.73E-2
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	1.41E+0	6.04E-3	5.79E-1	1.99E+0	1.09E-3	2.43E-2	1.53E-4	-2.04E+0	-2.73E-2
PENRE	MJ	1.34E+1	4.47E-1	2.84E-1	1.42E+1	8.05E-2	5.44E-1	4.43E-3	-7.07E+0	7.72E+0
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	1.34E+1	4.47E-1	2.84E-1	1.42E+1	8.05E-2	5.44E-1	4.43E-3	-7.07E+0	7.72E+0
PET	MJ	1.48E+1	4.53E-1	8.63E-1	1.62E+1	8.16E-2	5.68E-1	4.58E-3	-9.12E+0	7.69E+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	4.61E-3	4.76E-5	1.42E-3	6.08E-3	8.58E-6	3.31E-4	5.12E-6	-3.01E-3	3.41E-3

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	3.34E-6	1.08E-6	2.89E-7	4.70E-6	1.94E-7	8.92E-7	5.00E-9	-2.51E-6	3.29E-6
NHWD	kg	3.05E-2	2.61E-2	2.80E-3	5.94E-2	4.70E-3	2.55E-2	1.95E-2	-1.04E-2	9.87E-2
RWD	kg	1.23E-5	2.86E-6	3.08E-7	1.54E-5	5.16E-7	2.05E-6	2.73E-8	-5.43E-6	1.26E-5
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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