

Environmental Profile

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

Ecochain v3.5.64



Product: 3080367 - ED Tech PP Pipe HTEM 50 L=1 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	3.93E-1	3.50E-2	3.05E-2	4.59E-1	6.92E-3	2.81E-1	2.79E-3	-2.79E-1	4.70E-1
GWP-f	kg CO2 eq	4.77E-1	3.49E-2	2.73E-2	5.39E-1	6.91E-3	1.96E-1	2.79E-3	-2.78E-1	4.66E-1
GWP-b	kg CO2 eq	-8.34E-2	2.12E-5	1.72E-3	-8.16E-2	4.20E-6	8.48E-2	2.48E-6	-9.28E-4	2.26E-3
GWP-luluc	kg CO2 eq	1.86E-4	1.24E-5	1.55E-3	1.75E-3	2.45E-6	3.87E-5	5.19E-8	-7.94E-5	1.71E-3
ODP	kg CFC11 eq	1.56E-8	8.05E-9	2.97E-9	2.66E-8	1.59E-9	5.14E-9	7.85E-11	-1.15E-8	2.20E-8
AP	mol H+ eq	1.99E-3	1.99E-4	9.20E-5	2.28E-3	3.94E-5	2.16E-4	1.85E-6	-8.13E-4	1.72E-3
EP-fw	kg P eq	8.33E-6	2.87E-7	3.64E-7	8.98E-6	5.69E-8	1.12E-6	2.34E-9	-3.32E-6	6.83E-6
EP-m	kg N eq	3.13E-4	7.12E-5	1.76E-5	4.02E-4	1.41E-5	6.33E-5	1.21E-6	-1.50E-4	3.31E-4
EP-T	mol N eq	3.57E-3	7.85E-4	1.94E-4	4.55E-3	1.55E-4	6.97E-4	7.49E-6	-1.70E-3	3.71E-3
POCP	kg NMVOC eq	1.57E-3	2.24E-4	6.16E-5	1.86E-3	4.44E-5	2.19E-4	2.74E-6	-7.43E-4	1.38E-3
ADP-mm	kg Sb eq	1.49E-5	9.04E-7	4.99E-7	1.63E-5	1.79E-7	8.45E-7	1.85E-9	-2.12E-6	1.52E-5
ADP-f	MJ	1.62E+1	5.36E-1	3.76E-1	1.71E+1	1.06E-1	6.77E-1	5.68E-3	-8.60E+0	9.32E+0
WDP	m3 depriv.	3.36E-1	1.65E-3	8.62E-2	4.24E-1	3.26E-4	1.32E-2	3.09E-5	-1.48E-1	2.90E-1
PM	disease inc.	1.89E-8	3.15E-9	1.12E-9	2.31E-8	6.24E-10	3.53E-9	3.88E-11	-7.42E-9	1.99E-8
IR	kBq U-235 eq	1.10E-2	2.34E-3	3.67E-4	1.37E-2	4.64E-4	2.05E-3	2.61E-5	-4.35E-3	1.19E-2
ETP-fw	CTUe	3.58E+0	4.35E-1	4.52E-1	4.47E+0	8.62E-2	7.87E-1	4.79E-3	-1.44E+0	3.90E+0
HTP-c	CTUh	1.83E-10	1.55E-11	2.74E-11	2.26E-10	3.07E-12	9.32E-11	1.34E-13	-6.34E-11	2.59E-10
HTP-nc	CTUh	3.77E-9	5.19E-10	4.98E-10	4.78E-9	1.03E-10	1.13E-9	2.99E-12	-1.48E-9	4.55E-9
SQP	Pt	8.19E+0	4.59E-1	7.78E-2	8.73E+0	9.08E-2	5.42E-1	1.43E-2	-4.13E+0	5.25E+0
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	1.35E+0	7.69E-3	8.37E-1	2.20E+0	1.52E-3	3.32E-2	2.06E-4	-7.30E-1	1.50E+0
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	1.35E+0	7.69E-3	8.37E-1	2.20E+0	1.52E-3	3.32E-2	2.06E-4	-7.30E-1	1.50E+0
PENRE	MJ	1.74E+1	5.69E-1	4.11E-1	1.84E+1	1.13E-1	7.21E-1	6.03E-3	-9.27E+0	9.95E+0
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	1.74E+1	5.69E-1	4.11E-1	1.84E+1	1.13E-1	7.21E-1	6.03E-3	-9.27E+0	9.95E+0
PET	MJ	1.88E+1	5.77E-1	1.25E+0	2.06E+1	1.14E-1	7.55E-1	6.23E-3	-1.00E+1	1.15E+1
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	5.44E-3	6.07E-5	2.05E-3	7.55E-3	1.20E-5	4.09E-4	6.96E-6	-2.26E-3	5.71E-3

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	3.07E-6	1.37E-6	4.18E-7	4.86E-6	2.71E-7	1.12E-6	6.82E-9	-2.33E-6	3.92E-6
NHWD	kg	3.24E-2	3.32E-2	4.05E-3	6.97E-2	6.58E-3	3.41E-2	2.66E-2	-8.60E-3	1.28E-1
RWD	kg	1.06E-5	3.65E-6	4.46E-7	1.47E-5	7.22E-7	2.61E-6	3.72E-8	-4.05E-6	1.40E-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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