

Environmental Profile

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

Ecochain v3.5.64



Product: 3010759 - ED Tech PP Pipe HTDM 110 L=2 S/S
 Unit: 1 piece
 Manufacturer: Wavin - IT - SM Maddalena

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



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.

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	☑	☑	☑	☑									

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 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	2.67E+0	2.21E-1	1.96E-1	3.09E+0	4.46E-2	1.62E+0	1.81E-2	-1.80E+0	2.97E+0
GWP-f	kg CO2 eq	3.03E+0	2.21E-1	1.75E-1	3.42E+0	4.46E-2	1.25E+0	1.81E-2	-1.80E+0	2.94E+0
GWP-b	kg CO2 eq	-3.55E-1	1.34E-4	1.11E-2	-3.44E-1	2.71E-5	3.65E-1	1.60E-5	-6.05E-3	1.49E-2
GWP-luluc	kg CO2 eq	1.05E-3	7.82E-5	9.96E-3	1.11E-2	1.58E-5	2.49E-4	3.31E-7	-4.76E-4	1.09E-2
ODP	kg CFC11 eq	8.76E-8	5.09E-8	1.91E-8	1.58E-7	1.03E-8	3.30E-8	5.06E-10	-7.28E-8	1.28E-7
AP	mol H+ eq	1.19E-2	1.26E-3	5.91E-4	1.37E-2	2.54E-4	1.38E-3	1.19E-5	-5.19E-3	1.02E-2
EP-fw	kg P eq	5.00E-5	1.82E-6	2.34E-6	5.42E-5	3.67E-7	7.21E-6	1.50E-8	-2.11E-5	4.07E-5
EP-m	kg N eq	1.92E-3	4.50E-4	1.13E-4	2.48E-3	9.09E-5	4.02E-4	7.78E-6	-9.46E-4	2.04E-3
EP-T	mol N eq	2.18E-2	4.96E-3	1.25E-3	2.80E-2	1.00E-3	4.43E-3	4.83E-5	-1.06E-2	2.29E-2
POCP	kg NMVOC eq	9.79E-3	1.42E-3	3.95E-4	1.16E-2	2.86E-4	1.40E-3	1.77E-5	-4.73E-3	8.58E-3
ADP-mm	kg Sb eq	8.58E-5	5.71E-6	3.20E-6	9.47E-5	1.15E-6	5.44E-6	1.19E-8	-1.34E-5	8.79E-5
ADP-f	MJ	1.05E+2	3.39E+0	2.41E+0	1.11E+2	6.85E-1	4.36E+0	3.66E-2	-5.57E+1	6.01E+1
WDP	m3 depriv.	2.13E+0	1.04E-2	5.53E-1	2.69E+0	2.10E-3	8.52E-2	1.86E-4	-9.61E-1	1.82E+0
PM	disease inc.	1.10E-7	1.99E-8	7.16E-9	1.37E-7	4.03E-9	2.27E-8	2.50E-10	-4.64E-8	1.18E-7
IR	kBq U-235 eq	6.59E-2	1.48E-2	2.35E-3	8.31E-2	2.99E-3	1.32E-2	1.69E-4	-2.78E-2	7.17E-2
ETP-fw	CTUe	2.06E+1	2.75E+0	2.90E+0	2.62E+1	5.56E-1	5.04E+0	3.07E-2	-8.59E+0	2.33E+1
HTP-c	CTUh	9.95E-10	9.80E-11	1.76E-10	1.27E-9	1.98E-11	5.85E-10	8.57E-13	-3.89E-10	1.49E-9
HTP-nc	CTUh	2.22E-8	3.28E-9	3.20E-9	2.87E-8	6.63E-10	7.26E-9	1.92E-11	-9.21E-9	2.74E-8
SQP	Pt	3.61E+1	2.90E+0	4.99E-1	3.95E+1	5.86E-1	3.49E+0	9.26E-2	-2.12E+1	2.25E+1
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	6.25E+0	4.86E-2	5.38E+0	1.17E+1	9.82E-3	2.14E-1	1.33E-3	-3.75E+0	8.15E+0
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	6.25E+0	4.86E-2	5.38E+0	1.17E+1	9.82E-3	2.14E-1	1.33E-3	-3.75E+0	8.15E+0
PENRE	MJ	1.13E+2	3.60E+0	2.64E+0	1.19E+2	7.27E-1	4.64E+0	3.89E-2	-6.01E+1	6.42E+1
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	1.13E+2	3.60E+0	2.64E+0	1.19E+2	7.27E-1	4.64E+0	3.89E-2	-6.01E+1	6.42E+1
PET	MJ	1.19E+2	3.65E+0	8.01E+0	1.31E+2	7.37E-1	4.86E+0	4.02E-2	-6.38E+1	7.23E+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	3.36E-2	3.84E-4	1.32E-2	4.71E-2	7.75E-5	2.60E-3	4.50E-5	-1.46E-2	3.52E-2

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	1.75E-5	8.67E-6	2.68E-6	2.89E-5	1.75E-6	7.15E-6	4.39E-8	-1.47E-5	2.31E-5
NHWD	kg	1.72E-1	2.10E-1	2.60E-2	4.08E-1	4.24E-2	2.17E-1	1.71E-1	-5.31E-2	7.86E-1
RWD	kg	6.27E-5	2.31E-5	2.86E-6	8.86E-5	4.66E-6	1.67E-5	2.40E-7	-2.57E-5	8.46E-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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