

# Environmental Profile

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

Ecochain v3.5.64



Product: 3018482 - ED Tech PP Pipe HTEM 125 L=1,5 S/PL  
 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	2.17E+0	1.74E-1	1.59E-1	2.50E+0	3.63E-2	1.31E+0	1.47E-2	-1.46E+0	2.39E+0
GWP-f	kg CO2 eq	2.45E+0	1.74E-1	1.42E-1	2.77E+0	3.62E-2	1.01E+0	1.47E-2	-1.46E+0	2.37E+0
GWP-b	kg CO2 eq	-2.87E-1	1.05E-4	9.00E-3	-2.78E-1	2.20E-5	2.95E-1	1.30E-5	-4.92E-3	1.23E-2
GWP-luluc	kg CO2 eq	8.50E-4	6.15E-5	8.10E-3	9.01E-3	1.28E-5	2.03E-4	2.69E-7	-3.85E-4	8.84E-3
ODP	kg CFC11 eq	6.93E-8	4.00E-8	1.55E-8	1.25E-7	8.35E-9	2.68E-8	4.11E-10	-5.88E-8	1.02E-7
AP	mol H+ eq	9.64E-3	9.89E-4	4.80E-4	1.11E-2	2.06E-4	1.12E-3	9.64E-6	-4.21E-3	8.24E-3
EP-fw	kg P eq	4.04E-5	1.43E-6	1.90E-6	4.38E-5	2.98E-7	5.86E-6	1.21E-8	-1.71E-5	3.28E-5
EP-m	kg N eq	1.55E-3	3.54E-4	9.17E-5	2.00E-3	7.38E-5	3.26E-4	6.28E-6	-7.67E-4	1.64E-3
EP-T	mol N eq	1.76E-2	3.90E-3	1.01E-3	2.26E-2	8.14E-4	3.59E-3	3.92E-5	-8.60E-3	1.84E-2
POCP	kg NMVOC eq	7.92E-3	1.12E-3	3.21E-4	9.36E-3	2.33E-4	1.13E-3	1.44E-5	-3.84E-3	6.90E-3
ADP-mm	kg Sb eq	6.65E-5	4.49E-6	2.60E-6	7.36E-5	9.37E-7	4.42E-6	9.64E-9	-1.08E-5	6.82E-5
ADP-f	MJ	8.51E+1	2.67E+0	1.96E+0	8.97E+1	5.56E-1	3.54E+0	2.97E-2	-4.52E+1	4.86E+1
WDP	m3 depriv.	1.73E+0	8.18E-3	4.50E-1	2.18E+0	1.71E-3	6.92E-2	1.51E-4	-7.80E-1	1.47E+0
PM	disease inc.	8.90E-8	1.57E-8	5.82E-9	1.11E-7	3.27E-9	1.84E-8	2.03E-10	-3.76E-8	9.48E-8
IR	kBq U-235 eq	5.29E-2	1.17E-2	1.91E-3	6.65E-2	2.43E-3	1.07E-2	1.37E-4	-2.25E-2	5.73E-2
ETP-fw	CTUe	1.66E+1	2.17E+0	2.36E+0	2.11E+1	4.52E-1	4.08E+0	2.48E-2	-6.96E+0	1.87E+1
HTP-c	CTUh	8.08E-10	7.70E-11	1.43E-10	1.03E-9	1.61E-11	4.75E-10	6.94E-13	-3.14E-10	1.21E-9
HTP-nc	CTUh	1.80E-8	2.58E-9	2.60E-9	2.32E-8	5.38E-10	5.90E-9	1.55E-11	-7.47E-9	2.21E-8
SQP	Pt	2.92E+1	2.28E+0	4.06E-1	3.19E+1	4.76E-1	2.84E+0	7.51E-2	-1.70E+1	1.83E+1
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	5.05E+0	3.83E-2	4.37E+0	9.46E+0	7.98E-3	1.74E-1	1.08E-3	-3.02E+0	6.63E+0
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	5.05E+0	3.83E-2	4.37E+0	9.46E+0	7.98E-3	1.74E-1	1.08E-3	-3.02E+0	6.63E+0
PENRE	MJ	9.13E+1	2.83E+0	2.15E+0	9.62E+1	5.90E-1	3.77E+0	3.15E-2	-4.87E+1	5.19E+1
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	9.13E+1	2.83E+0	2.15E+0	9.62E+1	5.90E-1	3.77E+0	3.15E-2	-4.87E+1	5.19E+1
PET	MJ	9.63E+1	2.87E+0	6.52E+0	1.06E+2	5.98E-1	3.95E+0	3.26E-2	-5.18E+1	5.85E+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	2.72E-2	3.02E-4	1.07E-2	3.82E-2	6.29E-5	2.11E-3	3.65E-5	-1.19E-2	2.85E-2

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	1.41E-5	6.82E-6	2.18E-6	2.31E-5	1.42E-6	5.80E-6	3.56E-8	-1.19E-5	1.84E-5
NHWD	kg	1.40E-1	1.65E-1	2.12E-2	3.26E-1	3.45E-2	1.76E-1	1.39E-1	-4.30E-2	6.33E-1
RWD	kg	5.01E-5	1.81E-5	2.33E-6	7.05E-5	3.78E-6	1.36E-5	1.95E-7	-2.08E-5	6.73E-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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