

# Environmental Profile

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

Ecochain v3.5.64



Product: 3010762 - ED Tech PP Pipe HTDM 125 L=1 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	MND	MND	MND	MND	MND	MND	MND	MND	MND	☑	☑	☑	☑
<b>Product stage</b>					<b>Use stage</b>							<b>End-of-Life stage</b>				
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				
<b>Construction process stage</b>					<b>Benefits and loads beyond the system boundaries</b>											
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	1.67E+0	1.29E-1	1.17E-1	1.91E+0	2.73E-2	1.10E+0	1.13E-2	-1.12E+0	1.93E+0
GWP-f	kg CO2 eq	1.92E+0	1.29E-1	1.04E-1	2.15E+0	2.72E-2	8.43E-1	1.13E-2	-1.12E+0	1.92E+0
GWP-b	kg CO2 eq	-2.52E-1	7.85E-5	6.61E-3	-2.46E-1	1.65E-5	2.56E-1	1.00E-5	-3.60E-3	7.28E-3
GWP-luluc	kg CO2 eq	7.28E-4	4.58E-5	5.95E-3	6.72E-3	9.64E-6	1.51E-4	2.06E-7	-2.98E-4	6.58E-3
ODP	kg CFC11 eq	7.52E-8	2.98E-8	1.14E-8	1.16E-7	6.28E-9	2.01E-8	3.15E-10	-4.84E-8	9.47E-8
AP	mol H+ eq	7.70E-3	7.37E-4	3.52E-4	8.78E-3	1.55E-4	8.46E-4	7.40E-6	-3.18E-3	6.61E-3
EP-fw	kg P eq	3.34E-5	1.06E-6	1.39E-6	3.59E-5	2.24E-7	4.36E-6	9.34E-9	-1.29E-5	2.75E-5
EP-m	kg N eq	1.25E-3	2.64E-4	6.74E-5	1.58E-3	5.55E-5	2.48E-4	5.16E-6	-5.85E-4	1.30E-3
EP-T	mol N eq	1.42E-2	2.90E-3	7.43E-4	1.78E-2	6.12E-4	2.73E-3	3.01E-5	-6.58E-3	1.46E-2
POCP	kg NMVOC eq	6.36E-3	8.30E-4	2.36E-4	7.42E-3	1.75E-4	8.57E-4	1.10E-5	-2.91E-3	5.56E-3
ADP-mm	kg Sb eq	8.66E-5	3.35E-6	1.91E-6	9.19E-5	7.05E-7	3.29E-6	7.39E-9	-9.25E-6	8.66E-5
ADP-f	MJ	6.59E+1	1.98E+0	1.44E+0	6.93E+1	4.18E-1	2.64E+0	2.28E-2	-3.42E+1	3.82E+1
WDP	m3 depriv.	1.34E+0	6.09E-3	3.30E-1	1.68E+0	1.28E-3	5.24E-2	1.14E-4	-5.81E-1	1.15E+0
PM	disease inc.	7.42E-8	1.17E-8	4.27E-9	9.01E-8	2.46E-9	1.37E-8	1.55E-10	-2.85E-8	7.79E-8
IR	kBq U-235 eq	4.80E-2	8.68E-3	1.41E-3	5.81E-2	1.83E-3	7.98E-3	1.05E-4	-1.73E-2	5.07E-2
ETP-fw	CTUe	1.45E+1	1.61E+0	1.73E+0	1.78E+1	3.39E-1	3.18E+0	2.01E-2	-5.41E+0	1.59E+1
HTP-c	CTUh	6.57E-10	5.74E-11	1.05E-10	8.19E-10	1.21E-11	3.54E-10	5.34E-13	-2.43E-10	9.44E-10
HTP-nc	CTUh	1.46E-8	1.92E-9	1.91E-9	1.84E-8	4.05E-10	4.44E-9	1.22E-11	-5.68E-9	1.76E-8
SQP	Pt	2.56E+1	1.70E+0	2.98E-1	2.76E+1	3.58E-1	2.11E+0	5.76E-2	-1.40E+1	1.61E+1
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	4.35E+0	2.85E-2	3.21E+0	7.59E+0	6.00E-3	1.29E-1	8.38E-4	-2.47E+0	5.25E+0
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	4.35E+0	2.85E-2	3.21E+0	7.59E+0	6.00E-3	1.29E-1	8.38E-4	-2.47E+0	5.25E+0
PENRE	MJ	7.07E+1	2.11E+0	1.57E+0	7.43E+1	4.44E-1	2.81E+0	2.42E-2	-3.69E+1	4.07E+1
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	7.07E+1	2.11E+0	1.57E+0	7.43E+1	4.44E-1	2.81E+0	2.42E-2	-3.69E+1	4.07E+1
PET	MJ	7.50E+1	2.14E+0	4.78E+0	8.19E+1	4.50E-1	2.94E+0	2.50E-2	-3.94E+1	4.60E+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	2.17E-2	2.25E-4	7.86E-3	2.98E-2	4.73E-5	1.68E-3	2.80E-5	-8.90E-3	2.27E-2

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	1.23E-5	5.08E-6	1.60E-6	1.90E-5	1.07E-6	4.38E-6	2.73E-8	-9.68E-6	1.48E-5
NHWD	kg	1.13E-1	1.23E-1	1.55E-2	2.51E-1	2.59E-2	1.33E-1	1.06E-1	-3.30E-2	4.84E-1
RWD	kg	4.89E-5	1.35E-5	1.71E-6	6.41E-5	2.84E-6	1.01E-5	1.49E-7	-1.62E-5	6.10E-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



Ecochain Technologies BV  
H.J.E. Wenckebachweg 123, 1096 AM Amsterdam, The Netherlands  
<https://www.ecochain.com>  
+31 20 3035 777