

Environmental Profile

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

Ecochain v3.5.64



Product: 3010725 - ED Tech PP Pipe HTEM 110 L=0,5 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	6.99E-1	6.18E-2	5.27E-2	8.14E-1	1.26E-2	5.60E-1	5.15E-3	-5.20E-1	8.72E-1
GWP-f	kg CO2 eq	8.84E-1	6.17E-2	4.70E-2	9.92E-1	1.25E-2	3.73E-1	5.15E-3	-5.18E-1	8.65E-1
GWP-b	kg CO2 eq	-1.85E-1	3.75E-5	2.97E-3	-1.82E-1	7.62E-6	1.87E-1	4.58E-6	-1.68E-3	3.59E-3
GWP-luluc	kg CO2 eq	3.62E-4	2.19E-5	2.67E-3	3.06E-3	4.44E-6	6.99E-5	9.44E-8	-1.59E-4	2.97E-3
ODP	kg CFC11 eq	3.18E-8	1.42E-8	5.12E-9	5.11E-8	2.89E-9	9.36E-9	1.44E-10	-2.22E-8	4.13E-8
AP	mol H+ eq	3.55E-3	3.52E-4	1.59E-4	4.06E-3	7.15E-5	3.94E-4	3.38E-6	-1.51E-3	3.02E-3
EP-fw	kg P eq	1.55E-5	5.08E-7	6.27E-7	1.66E-5	1.03E-7	2.02E-6	4.27E-9	-6.25E-6	1.25E-5
EP-m	kg N eq	5.83E-4	1.26E-4	3.03E-5	7.40E-4	2.56E-5	1.16E-4	2.30E-6	-2.83E-4	6.01E-4
EP-T	mol N eq	6.64E-3	1.39E-3	3.34E-4	8.36E-3	2.82E-4	1.28E-3	1.37E-5	-3.20E-3	6.74E-3
POCP	kg NMVOC eq	2.94E-3	3.97E-4	1.06E-4	3.44E-3	8.06E-5	4.01E-4	5.04E-6	-1.39E-3	2.54E-3
ADP-mm	kg Sb eq	3.30E-5	1.60E-6	8.60E-7	3.54E-5	3.25E-7	1.53E-6	3.38E-9	-4.14E-6	3.31E-5
ADP-f	MJ	3.02E+1	9.48E-1	6.48E-1	3.18E+1	1.93E-1	1.23E+0	1.04E-2	-1.58E+1	1.74E+1
WDP	m3 depriv.	6.15E-1	2.91E-3	1.49E-1	7.66E-1	5.91E-4	2.41E-2	5.28E-5	-2.71E-1	5.20E-1
PM	disease inc.	3.56E-8	5.57E-9	1.92E-9	4.31E-8	1.13E-9	6.41E-9	7.11E-11	-1.41E-8	3.66E-8
IR	kBq U-235 eq	2.13E-2	4.14E-3	6.32E-4	2.61E-2	8.42E-4	3.72E-3	4.80E-5	-8.19E-3	2.25E-2
ETP-fw	CTUe	6.63E+0	7.70E-1	7.79E-1	8.18E+0	1.56E-1	1.45E+0	8.98E-3	-2.76E+0	7.04E+0
HTP-c	CTUh	3.25E-10	2.74E-11	4.73E-11	4.00E-10	5.57E-12	1.67E-10	2.44E-13	-1.26E-10	4.46E-10
HTP-nc	CTUh	6.83E-9	9.18E-10	8.58E-10	8.60E-9	1.86E-10	2.06E-9	5.52E-12	-2.79E-9	8.06E-9
SQP	Pt	1.77E+1	8.11E-1	1.34E-1	1.86E+1	1.65E-1	9.81E-1	2.63E-2	-9.55E+0	1.02E+1
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	2.87E+0	1.36E-2	1.44E+0	4.33E+0	2.76E-3	6.00E-2	3.82E-4	-1.64E+0	2.75E+0
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	2.87E+0	1.36E-2	1.44E+0	4.33E+0	2.76E-3	6.00E-2	3.82E-4	-1.64E+0	2.75E+0
PENRE	MJ	3.24E+1	1.01E+0	7.08E-1	3.41E+1	2.05E-1	1.31E+0	1.10E-2	-1.71E+1	1.86E+1
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	3.24E+1	1.01E+0	7.08E-1	3.41E+1	2.05E-1	1.31E+0	1.10E-2	-1.71E+1	1.86E+1
PET	MJ	3.53E+1	1.02E+0	2.15E+0	3.85E+1	2.07E-1	1.37E+0	1.14E-2	-1.87E+1	2.13E+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	9.93E-3	1.07E-4	3.53E-3	1.36E-2	2.18E-5	7.63E-4	1.28E-5	-4.16E-3	1.02E-2

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	5.84E-6	2.42E-6	7.20E-7	8.99E-6	4.93E-7	2.03E-6	1.25E-8	-4.55E-6	6.97E-6
NHWD	kg	5.42E-2	5.88E-2	6.99E-3	1.20E-1	1.19E-2	6.21E-2	4.86E-2	-1.68E-2	2.26E-1
RWD	kg	2.12E-5	6.45E-6	7.69E-7	2.84E-5	1.31E-6	4.73E-6	6.82E-8	-7.70E-6	2.68E-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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