

Environmental Profile

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

Ecochain v3.5.64



Product: 3010721 - ED Tech PP Pipe HTEM 90 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	5.07E-1	4.67E-2	3.71E-2	5.91E-1	9.13E-3	4.23E-1	3.78E-3	-3.81E-1	6.46E-1
GWP-f	kg CO2 eq	6.53E-1	4.66E-2	3.31E-2	7.33E-1	9.13E-3	2.75E-1	3.78E-3	-3.80E-1	6.41E-1
GWP-b	kg CO2 eq	-1.46E-1	2.83E-5	2.10E-3	-1.44E-1	5.54E-6	1.48E-1	3.36E-6	-1.23E-3	2.50E-3
GWP-luluc	kg CO2 eq	2.76E-4	1.65E-5	1.89E-3	2.18E-3	3.23E-6	5.08E-5	6.93E-8	-1.17E-4	2.11E-3
ODP	kg CFC11 eq	2.46E-8	1.07E-8	3.61E-9	3.89E-8	2.10E-9	6.81E-9	1.05E-10	-1.64E-8	3.15E-8
AP	mol H+ eq	2.69E-3	2.66E-4	1.12E-4	3.07E-3	5.20E-5	2.88E-4	2.47E-6	-1.11E-3	2.30E-3
EP-fw	kg P eq	1.16E-5	3.84E-7	4.42E-7	1.25E-5	7.51E-8	1.47E-6	3.14E-9	-4.58E-6	9.43E-6
EP-m	kg N eq	4.36E-4	9.51E-5	2.14E-5	5.53E-4	1.86E-5	8.50E-5	1.69E-6	-2.08E-4	4.50E-4
EP-T	mol N eq	4.97E-3	1.05E-3	2.36E-4	6.25E-3	2.05E-4	9.37E-4	1.00E-5	-2.37E-3	5.03E-3
POCP	kg NMVOC eq	2.19E-3	3.00E-4	7.48E-5	2.56E-3	5.86E-5	2.93E-4	3.69E-6	-1.02E-3	1.90E-3
ADP-mm	kg Sb eq	2.53E-5	1.21E-6	6.06E-7	2.71E-5	2.36E-7	1.11E-6	2.48E-9	-3.07E-6	2.54E-5
ADP-f	MJ	2.22E+1	7.16E-1	4.57E-1	2.34E+1	1.40E-1	8.92E-1	7.61E-3	-1.16E+1	1.28E+1
WDP	m3 depriv.	4.55E-1	2.20E-3	1.05E-1	5.62E-1	4.30E-4	1.76E-2	3.95E-5	-1.98E-1	3.82E-1
PM	disease inc.	2.71E-8	4.21E-9	1.36E-9	3.26E-8	8.24E-10	4.67E-9	5.20E-11	-1.04E-8	2.78E-8
IR	kBq U-235 eq	1.61E-2	3.13E-3	4.46E-4	1.97E-2	6.12E-4	2.71E-3	3.51E-5	-6.00E-3	1.70E-2
ETP-fw	CTUe	5.06E+0	5.81E-1	5.49E-1	6.19E+0	1.14E-1	1.06E+0	6.61E-3	-2.07E+0	5.31E+0
HTP-c	CTUh	2.52E-10	2.07E-11	3.33E-11	3.06E-10	4.05E-12	1.23E-10	1.80E-13	-9.28E-11	3.41E-10
HTP-nc	CTUh	5.17E-9	6.93E-10	6.05E-10	6.47E-9	1.36E-10	1.50E-9	4.05E-12	-2.06E-9	6.05E-9
SQP	Pt	1.40E+1	6.13E-1	9.45E-2	1.47E+1	1.20E-1	7.13E-1	1.92E-2	-7.10E+0	8.42E+0
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	2.26E+0	1.03E-2	1.02E+0	3.29E+0	2.01E-3	4.37E-2	2.80E-4	-1.23E+0	2.10E+0
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	2.26E+0	1.03E-2	1.02E+0	3.29E+0	2.01E-3	4.37E-2	2.80E-4	-1.23E+0	2.10E+0
PENRE	MJ	2.38E+1	7.60E-1	4.99E-1	2.51E+1	1.49E-1	9.51E-1	8.07E-3	-1.25E+1	1.37E+1
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	2.38E+1	7.60E-1	4.99E-1	2.51E+1	1.49E-1	9.51E-1	8.07E-3	-1.25E+1	1.37E+1
PET	MJ	2.61E+1	7.70E-1	1.52E+0	2.84E+1	1.51E-1	9.94E-1	8.35E-3	-1.37E+1	1.58E+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	7.42E-3	8.10E-5	2.49E-3	9.99E-3	1.59E-5	5.60E-4	9.34E-6	-3.05E-3	7.53E-3

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	4.44E-6	1.83E-6	5.08E-7	6.77E-6	3.58E-7	1.48E-6	9.12E-9	-3.35E-6	5.27E-6
NHWD	kg	4.27E-2	4.44E-2	4.92E-3	9.20E-2	8.68E-3	4.54E-2	3.54E-2	-1.24E-2	1.69E-1
RWD	kg	1.61E-5	4.87E-6	5.42E-7	2.15E-5	9.53E-7	3.44E-6	4.98E-8	-5.65E-6	2.03E-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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