

Environmental Profile

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

Ecochain v3.5.64



Product: 3080361 - ED Tech PP Pipe HTEM 32 L=3 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	7.91E-1	6.44E-2	5.82E-2	9.13E-1	1.32E-2	4.36E-1	5.28E-3	-5.25E-1	8.43E-1
GWP-f	kg CO2 eq	8.71E-1	6.44E-2	5.19E-2	9.87E-1	1.31E-2	3.50E-1	5.28E-3	-5.24E-1	8.32E-1
GWP-b	kg CO2 eq	-8.27E-2	3.91E-5	3.28E-3	-7.94E-2	7.98E-6	8.60E-2	4.67E-6	-1.81E-3	4.82E-3
GWP-luluc	kg CO2 eq	3.13E-3	2.28E-5	2.95E-3	6.11E-3	4.65E-6	7.39E-5	9.71E-8	-1.34E-4	6.06E-3
ODP	kg CFC11 eq	2.01E-8	1.48E-8	5.65E-9	4.06E-8	3.03E-9	9.71E-9	1.48E-10	-2.03E-8	3.32E-8
AP	mol H+ eq	3.37E-3	3.67E-4	1.75E-4	3.92E-3	7.49E-5	4.04E-4	3.47E-6	-1.51E-3	2.88E-3
EP-fw	kg P eq	1.40E-5	5.30E-7	6.93E-7	1.53E-5	1.08E-7	2.13E-6	4.38E-9	-6.15E-6	1.14E-5
EP-m	kg N eq	5.66E-4	1.31E-4	3.35E-5	7.31E-4	2.68E-5	1.17E-4	2.19E-6	-2.74E-4	6.03E-4
EP-T	mol N eq	6.21E-3	1.45E-3	3.69E-4	8.03E-3	2.95E-4	1.29E-3	1.41E-5	-3.06E-3	6.57E-3
POCP	kg NMVOC eq	2.77E-3	4.13E-4	1.17E-4	3.31E-3	8.44E-5	4.08E-4	5.17E-6	-1.38E-3	2.42E-3
ADP-mm	kg Sb eq	1.66E-5	1.67E-6	9.50E-7	1.92E-5	3.40E-7	1.61E-6	3.48E-9	-3.66E-6	1.75E-5
ADP-f	MJ	3.04E+1	9.88E-1	7.16E-1	3.21E+1	2.02E-1	1.29E+0	1.07E-2	-1.64E+1	1.72E+1
WDP	m3 depriv.	6.18E-1	3.03E-3	1.64E-1	7.85E-1	6.19E-4	2.50E-2	5.59E-5	-2.84E-1	5.27E-1
PM	disease inc.	3.03E-8	5.81E-9	2.12E-9	3.82E-8	1.19E-9	6.70E-9	7.31E-11	-1.34E-8	3.28E-8
IR	kBq U-235 eq	1.73E-2	4.32E-3	6.98E-4	2.23E-2	8.82E-4	3.90E-3	4.92E-5	-8.07E-3	1.91E-2
ETP-fw	CTUe	5.70E+0	8.03E-1	8.60E-1	7.36E+0	1.64E-1	1.46E+0	8.73E-3	-2.42E+0	6.57E+0
HTP-c	CTUh	2.77E-10	2.86E-11	5.22E-11	3.58E-10	5.83E-12	1.73E-10	2.51E-13	-1.10E-10	4.27E-10
HTP-nc	CTUh	6.32E-9	9.57E-10	9.48E-10	8.23E-9	1.95E-10	2.14E-9	5.55E-12	-2.66E-9	7.91E-9
SQP	Pt	8.42E+0	8.46E-1	1.48E-1	9.41E+0	1.73E-1	1.03E+0	2.70E-2	-5.28E+0	5.37E+0
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	1.51E+0	1.42E-2	1.59E+0	3.12E+0	2.90E-3	6.32E-2	3.87E-4	-9.46E-1	2.24E+0
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	1.51E+0	1.42E-2	1.59E+0	3.12E+0	2.90E-3	6.32E-2	3.87E-4	-9.46E-1	2.24E+0
PENRE	MJ	3.26E+1	1.05E+0	7.83E-1	3.44E+1	2.14E-1	1.37E+0	1.14E-2	-1.76E+1	1.84E+1
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	3.26E+1	1.05E+0	7.83E-1	3.44E+1	2.14E-1	1.37E+0	1.14E-2	-1.76E+1	1.84E+1
PET	MJ	3.41E+1	1.06E+0	2.38E+0	3.76E+1	2.17E-1	1.44E+0	1.17E-2	-1.86E+1	2.06E+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	9.74E-3	1.12E-4	3.90E-3	1.38E-2	2.28E-5	7.41E-4	1.31E-5	-4.32E-3	1.02E-2

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	4.66E-6	2.53E-6	7.96E-7	7.98E-6	5.16E-7	2.10E-6	1.28E-8	-4.13E-6	6.48E-6
NHWD	kg	4.77E-2	6.13E-2	7.72E-3	1.17E-1	1.25E-2	6.35E-2	5.01E-2	-1.52E-2	2.28E-1
RWD	kg	1.56E-5	6.72E-6	8.49E-7	2.32E-5	1.37E-6	4.95E-6	7.01E-8	-7.40E-6	2.22E-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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