

Environmental Profile

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

Ecochain v3.5.64



Product: 3010734 - ED Tech PP Pipe HTEM 160 L=1 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	2.22E+0	2.10E-1	1.89E-1	2.62E+0	4.22E-2	1.94E+0	1.71E-2	-1.73E+0	2.89E+0
GWP-f	kg CO2 eq	2.94E+0	2.09E-1	1.68E-1	3.31E+0	4.21E-2	1.21E+0	1.71E-2	-1.73E+0	2.86E+0
GWP-b	kg CO2 eq	-7.16E-1	1.27E-4	1.06E-2	-7.05E-1	2.56E-5	7.24E-1	1.52E-5	-5.65E-3	1.34E-2
GWP-luluc	kg CO2 eq	1.24E-3	7.41E-5	9.58E-3	1.09E-2	1.49E-5	2.36E-4	3.14E-7	-5.62E-4	1.06E-2
ODP	kg CFC11 eq	9.90E-8	4.82E-8	1.83E-8	1.66E-7	9.71E-9	3.16E-8	4.80E-10	-7.36E-8	1.34E-7
AP	mol H+ eq	1.18E-2	1.19E-3	5.68E-4	1.36E-2	2.40E-4	1.33E-3	1.13E-5	-5.12E-3	1.00E-2
EP-fw	kg P eq	5.13E-5	1.72E-6	2.25E-6	5.53E-5	3.47E-7	6.82E-6	1.42E-8	-2.13E-5	4.12E-5
EP-m	kg N eq	1.95E-3	4.27E-4	1.09E-4	2.49E-3	8.58E-5	3.91E-4	7.49E-6	-9.60E-4	2.01E-3
EP-T	mol N eq	2.23E-2	4.70E-3	1.20E-3	2.82E-2	9.46E-4	4.31E-3	4.58E-5	-1.09E-2	2.25E-2
POCP	kg NMVOC eq	9.79E-3	1.34E-3	3.80E-4	1.15E-2	2.70E-4	1.35E-3	1.68E-5	-4.71E-3	8.45E-3
ADP-mm	kg Sb eq	9.62E-5	5.42E-6	3.08E-6	1.05E-4	1.09E-6	5.17E-6	1.13E-8	-1.35E-5	9.75E-5
ADP-f	MJ	1.00E+2	3.21E+0	2.32E+0	1.06E+2	6.47E-1	4.14E+0	3.47E-2	-5.29E+1	5.78E+1
WDP	m3 depriv.	2.04E+0	9.86E-3	5.32E-1	2.58E+0	1.98E-3	8.09E-2	1.76E-4	-9.08E-1	1.76E+0
PM	disease inc.	1.20E-7	1.89E-8	6.89E-9	1.46E-7	3.80E-9	2.16E-8	2.37E-10	-4.84E-8	1.23E-7
IR	kBq U-235 eq	6.88E-2	1.40E-2	2.26E-3	8.51E-2	2.83E-3	1.26E-2	1.60E-4	-2.76E-2	7.30E-2
ETP-fw	CTUe	2.19E+1	2.61E+0	2.79E+0	2.73E+1	5.25E-1	4.83E+0	2.95E-2	-9.61E+0	2.31E+1
HTP-c	CTUh	1.12E-9	9.29E-11	1.69E-10	1.38E-9	1.87E-11	5.67E-10	8.12E-13	-4.43E-10	1.53E-9
HTP-nc	CTUh	2.28E-8	3.11E-9	3.07E-9	2.90E-8	6.26E-10	6.93E-9	1.82E-11	-9.55E-9	2.70E-8
SQP	Pt	6.76E+1	2.75E+0	4.80E-1	7.08E+1	5.53E-1	3.31E+0	8.77E-2	-3.64E+1	3.83E+1
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	1.08E+1	4.61E-2	5.17E+0	1.61E+1	9.28E-3	2.02E-1	1.27E-3	-6.20E+0	1.01E+1
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	1.08E+1	4.61E-2	5.17E+0	1.61E+1	9.28E-3	2.02E-1	1.27E-3	-6.20E+0	1.01E+1
PENRE	MJ	1.08E+2	3.41E+0	2.54E+0	1.14E+2	6.86E-1	4.41E+0	3.68E-2	-5.70E+1	6.17E+1
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	1.08E+2	3.41E+0	2.54E+0	1.14E+2	6.86E-1	4.41E+0	3.68E-2	-5.70E+1	6.17E+1
PET	MJ	1.18E+2	3.46E+0	7.71E+0	1.30E+2	6.96E-1	4.61E+0	3.81E-2	-6.32E+1	7.17E+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	3.28E-2	3.64E-4	1.27E-2	4.59E-2	7.32E-5	2.52E-3	4.26E-5	-1.40E-2	3.45E-2

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	1.98E-5	8.22E-6	2.58E-6	3.06E-5	1.65E-6	6.83E-6	4.15E-8	-1.52E-5	2.39E-5
NHWD	kg	1.85E-1	1.99E-1	2.50E-2	4.09E-1	4.01E-2	2.10E-1	1.63E-1	-5.86E-2	7.63E-1
RWD	kg	6.74E-5	2.19E-5	2.75E-6	9.20E-5	4.40E-6	1.60E-5	2.27E-7	-2.60E-5	8.66E-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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