

Environmental Profile

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

Ecochain v3.5.64



Product: 3010733 - ED Tech PP Pipe HTEM 160 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	1.14E+0	1.13E-1	1.01E-1	1.36E+0	2.30E-2	1.24E+0	9.45E-3	-9.59E-1	1.67E+0
GWP-f	kg CO2 eq	1.67E+0	1.13E-1	9.04E-2	1.87E+0	2.30E-2	7.15E-1	9.45E-3	-9.56E-1	1.66E+0
GWP-b	kg CO2 eq	-5.26E-1	6.86E-5	5.72E-3	-5.20E-1	1.40E-5	5.29E-1	8.43E-6	-3.02E-3	5.99E-3
GWP-luluc	kg CO2 eq	8.02E-4	4.00E-5	5.15E-3	5.99E-3	8.13E-6	1.28E-4	1.74E-7	-3.23E-4	5.80E-3
ODP	kg CFC11 eq	7.15E-8	2.60E-8	9.84E-9	1.07E-7	5.30E-9	1.73E-8	2.65E-10	-4.30E-8	8.72E-8
AP	mol H+ eq	6.92E-3	6.43E-4	3.05E-4	7.87E-3	1.31E-4	7.40E-4	6.24E-6	-2.85E-3	5.90E-3
EP-fw	kg P eq	3.10E-5	9.29E-7	1.21E-6	3.31E-5	1.89E-7	3.71E-6	7.87E-9	-1.17E-5	2.53E-5
EP-m	kg N eq	1.16E-3	2.30E-4	5.83E-5	1.44E-3	4.68E-5	2.21E-4	4.36E-6	-5.42E-4	1.17E-3
EP-T	mol N eq	1.32E-2	2.54E-3	6.43E-4	1.64E-2	5.16E-4	2.43E-3	2.53E-5	-6.24E-3	1.31E-2
POCP	kg NMVOC eq	5.72E-3	7.25E-4	2.04E-4	6.65E-3	1.48E-4	7.56E-4	9.28E-6	-2.61E-3	4.95E-3
ADP-mm	kg Sb eq	7.62E-5	2.92E-6	1.65E-6	8.08E-5	5.95E-7	2.81E-6	6.23E-9	-8.08E-6	7.61E-5
ADP-f	MJ	5.61E+1	1.73E+0	1.25E+0	5.91E+1	3.53E-1	2.25E+0	1.92E-2	-2.89E+1	3.28E+1
WDP	m3 depriv.	1.15E+0	5.32E-3	2.86E-1	1.44E+0	1.08E-3	4.45E-2	9.74E-5	-4.91E-1	9.96E-1
PM	disease inc.	7.66E-8	1.02E-8	3.70E-9	9.05E-8	2.07E-9	1.19E-8	1.31E-10	-2.72E-8	7.73E-8
IR	kBq U-235 eq	4.41E-2	7.57E-3	1.22E-3	5.29E-2	1.54E-3	6.85E-3	8.86E-5	-1.53E-2	4.61E-2
ETP-fw	CTUe	1.39E+1	1.41E+0	1.50E+0	1.68E+1	2.86E-1	2.72E+0	1.70E-2	-5.81E+0	1.40E+1
HTP-c	CTUh	6.93E-10	5.01E-11	9.10E-11	8.34E-10	1.02E-11	3.16E-10	4.51E-13	-2.48E-10	9.14E-10
HTP-nc	CTUh	1.37E-8	1.68E-9	1.65E-9	1.70E-8	3.42E-10	3.82E-9	1.03E-11	-5.43E-9	1.58E-8
SQP	Pt	4.95E+1	1.48E+0	2.58E-1	5.12E+1	3.02E-1	1.80E+0	4.85E-2	-2.20E+1	3.13E+1
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	7.82E+0	2.49E-2	2.78E+0	1.06E+1	5.06E-3	1.10E-1	7.05E-4	-3.85E+0	6.89E+0
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	7.82E+0	2.49E-2	2.78E+0	1.06E+1	5.06E-3	1.10E-1	7.05E-4	-3.85E+0	6.89E+0
PENRE	MJ	6.02E+1	1.84E+0	1.36E+0	6.34E+1	3.75E-1	2.40E+0	2.04E-2	-3.12E+1	3.50E+1
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	6.02E+1	1.84E+0	1.36E+0	6.34E+1	3.75E-1	2.40E+0	2.04E-2	-3.12E+1	3.50E+1
PET	MJ	6.80E+1	1.86E+0	4.14E+0	7.40E+1	3.80E-1	2.51E+0	2.11E-2	-3.51E+1	4.18E+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	1.91E-2	1.96E-4	6.80E-3	2.60E-2	3.99E-5	1.46E-3	2.36E-5	-7.60E-3	2.00E-2

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	1.27E-5	4.43E-6	1.39E-6	1.85E-5	9.02E-7	3.77E-6	2.30E-8	-8.78E-6	1.44E-5
NHWD	kg	1.13E-1	1.07E-1	1.34E-2	2.34E-1	2.19E-2	1.17E-1	8.98E-2	-3.28E-2	4.30E-1
RWD	kg	4.54E-5	1.18E-5	1.48E-6	5.86E-5	2.40E-6	8.72E-6	1.26E-7	-1.46E-5	5.53E-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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