

Environmental Profile

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

Ecochain v3.5.64



Product: 3018484 - ED Tech PP Pipe HTEM 160 L=1,5 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	3.52E+0	3.00E-1	2.76E-1	4.10E+0	6.13E-2	2.37E+0	2.47E-2	-2.47E+0	4.08E+0
GWP-f	kg CO2 eq	4.17E+0	3.00E-1	2.46E-1	4.71E+0	6.13E-2	1.71E+0	2.47E-2	-2.46E+0	4.05E+0
GWP-b	kg CO2 eq	-6.43E-1	1.82E-4	1.56E-2	-6.27E-1	3.72E-5	6.56E-1	2.20E-5	-8.29E-3	2.08E-2
GWP-luluc	kg CO2 eq	1.53E-3	1.06E-4	1.40E-2	1.57E-2	2.17E-5	3.43E-4	4.54E-7	-6.76E-4	1.53E-2
ODP	kg CFC11 eq	1.21E-7	6.91E-8	2.68E-8	2.17E-7	1.41E-8	4.55E-8	6.94E-10	-1.00E-7	1.78E-7
AP	mol H+ eq	1.65E-2	1.71E-3	8.31E-4	1.90E-2	3.49E-4	1.91E-3	1.63E-5	-7.17E-3	1.41E-2
EP-fw	kg P eq	6.97E-5	2.47E-6	3.29E-6	7.55E-5	5.04E-7	9.92E-6	2.05E-8	-2.92E-5	5.67E-5
EP-m	kg N eq	2.68E-3	6.12E-4	1.59E-4	3.45E-3	1.25E-4	5.59E-4	1.06E-5	-1.32E-3	2.83E-3
EP-T	mol N eq	3.05E-2	6.74E-3	1.75E-3	3.90E-2	1.38E-3	6.15E-3	6.62E-5	-1.48E-2	3.17E-2
POCP	kg NMVOC eq	1.36E-2	1.93E-3	5.56E-4	1.60E-2	3.93E-4	1.94E-3	2.43E-5	-6.54E-3	1.19E-2
ADP-mm	kg Sb eq	1.15E-4	7.76E-6	4.51E-6	1.27E-4	1.59E-6	7.50E-6	1.63E-8	-1.83E-5	1.18E-4
ADP-f	MJ	1.44E+2	4.61E+0	3.40E+0	1.52E+2	9.41E-1	6.00E+0	5.02E-2	-7.63E+1	8.26E+1
WDP	m3 depriv.	2.92E+0	1.41E-2	7.79E-1	3.72E+0	2.89E-3	1.17E-1	2.55E-4	-1.32E+0	2.52E+0
PM	disease inc.	1.58E-7	2.71E-8	1.01E-8	1.96E-7	5.53E-9	3.13E-8	3.43E-10	-6.48E-8	1.68E-7
IR	kBq U-235 eq	9.14E-2	2.01E-2	3.31E-3	1.15E-1	4.11E-3	1.82E-2	2.31E-4	-3.83E-2	9.91E-2
ETP-fw	CTUe	2.89E+1	3.74E+0	4.08E+0	3.67E+1	7.64E-1	6.93E+0	4.20E-2	-1.24E+1	3.20E+1
HTP-c	CTUh	1.43E-9	1.33E-10	2.48E-10	1.81E-9	2.72E-11	8.14E-10	1.17E-12	-5.44E-10	2.11E-9
HTP-nc	CTUh	3.11E-8	4.46E-9	4.50E-9	4.00E-8	9.11E-10	1.00E-8	2.62E-11	-1.29E-8	3.81E-8
SQP	Pt	6.37E+1	3.94E+0	7.02E-1	6.83E+1	8.05E-1	4.81E+0	1.27E-1	-3.23E+1	4.17E+1
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	1.07E+1	6.61E-2	7.56E+0	1.83E+1	1.35E-2	2.94E-1	1.83E-3	-5.79E+0	1.28E+1
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	1.07E+1	6.61E-2	7.56E+0	1.83E+1	1.35E-2	2.94E-1	1.83E-3	-5.79E+0	1.28E+1
PENRE	MJ	1.54E+2	4.89E+0	3.71E+0	1.63E+2	9.99E-1	6.40E+0	5.33E-2	-8.23E+1	8.82E+1
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	1.54E+2	4.89E+0	3.71E+0	1.63E+2	9.99E-1	6.40E+0	5.33E-2	-8.23E+1	8.82E+1
PET	MJ	1.65E+2	4.96E+0	1.13E+1	1.81E+2	1.01E+0	6.69E+0	5.51E-2	-8.81E+1	1.01E+2
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	4.63E-2	5.21E-4	1.85E-2	6.53E-2	1.06E-4	3.58E-3	6.16E-5	-2.01E-2	4.90E-2

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	2.51E-5	1.18E-5	3.77E-6	4.06E-5	2.41E-6	9.85E-6	6.01E-8	-2.03E-5	3.27E-5
NHWD	kg	2.45E-1	2.85E-1	3.66E-2	5.67E-1	5.83E-2	3.01E-1	2.35E-1	-7.42E-2	1.09E+0
RWD	kg	8.69E-5	3.13E-5	4.03E-6	1.22E-4	6.40E-6	2.31E-5	3.29E-7	-3.54E-5	1.17E-4
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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