Environmental Profile

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

Ecochain v3.5.64

Product:	3011059 - Ed Tech Trap Bend HTSW 50x1 1/2"
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

A1 Raw material supply A2 Transport A3 Manufacturing

Construction process stage

A4 Transport gate to site
A5 Assembly / Construction installation process

Use stage

B1 Use B2 Maintenance B3 Repair B4 Replacement B5 Refurbishment
B6 Operational energy use B7 Operational water use

End-of-Life stage

C1 De-construction demolition C2 Transport C3 Waste processing
C4 Disposal

Benefits and loads beyond the system boundaries

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

Results

Environmental impact	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
GWP-total	kg CO2 eq	4.53E-1	7.92E-3	6.15E-3	4.67E-1	1.11E-3	3.27E-1	5.21E-4	-2.16E-1	5.79E-1
GWP-f	kg CO2 eq	4.87E-1	7.92E-3	5.26E-3	5.00E-1	1.11E-3	2.92E-1	5.21E-4	-2.28E-1	5.66E-1
GWP-b	kg CO2 eq	-3.44E-2	4.81E-6	4.45E-4	-3.39E-2	6.71E-7	3.47E-2	4.53E-7	1.17E-2	1.25E-2
GWP-luluc	kg CO2 eq	4.31E-4	2.80E-6	4.44E-4	8.78E-4	3.91E-7	8.58E-6	9.01E-9	-1.16E-4	7.71E-4
ODP	kg CFC11 eq	2.15E-8	1.82E-9	5.28E-10	2.38E-8	2.55E-10	1.67E-9	1.31E-11	-2.00E-8	5.73E-9
AP	mol H+ eq	2.11E-3	4.51E-5	2.12E-5	2.18E-3	6.30E-6	8.32E-5	3.13E-7	-3.66E-4	1.90E-3
EP-fw	kg P eq	1.55E-5	6.51E-8	8.18E-8	1.57E-5	9.10E-9	2.61E-7	4.11E-10	-2.16E-6	1.38E-5
EP-m	kg N eq	3.85E-4	1.61E-5	3.59E-6	4.05E-4	2.25E-6	3.02E-5	2.02E-7	-8.74E-5	3.50E-4
EP-T	mol N eq	4.28E-3	1.78E-4	4.03E-5	4.50E-3	2.48E-5	3.35E-4	1.27E-6	-9.76E-4	3.88E-3
POCP	kg NMVOC eq	1.78E-3	5.08E-5	1.25E-5	1.84E-3	7.10E-6	9.74E-5	4.76E-7	-3.61E-4	1.59E-3
ADP-mm	kg Sb eq	4.77E-6	2.05E-7	1.28E-7	5.11E-6	2.86E-8	2.30E-7	3.16E-10	-5.87E-7	4.78E-6
ADP-f	MJ	1.29E+1	1.22E-1	6.93E-2	1.31E+1	1.70E-2	1.73E-1	9.55E-4	-4.69E+0	8.56E+0
WDP	m3 depriv.	2.53E-1	3.73E-4	2.45E-2	2.78E-1	5.21E-5	3.07E-3	5.33E-6	-5.97E-2	2.22E-1
PM	disease inc.	1.75E-8	7.15E-10	2.13E-10	1.84E-8	9.98E-11	1.12E-9	6.57E-12	-3.43E-9	1.62E-8
IR	kBq U-235 eq	1.56E-2	5.31E-4	6.46E-5	1.62E-2	7.42E-5	5.71E-4	4.42E-6	-2.65E-3	1.42E-2
ETP-fw	CTUe	7.34E+0	9.87E-2	1.09E-1	7.54E+0	1.38E-2	2.45E-1	8.00E-4	-1.47E+0	6.34E+0
HTP-c	CTUh	1.49E-10	3.51E-12	5.83E-12	1.59E-10	4.90E-13	5.03E-11	2.37E-14	-3.84E-11	1.71E-10
HTP-nc	CTUh	3.95E-9	1.18E-10	1.21E-10	4.19E-9	1.64E-11	4.91E-10	5.17E-13	-7.58E-10	3.94E-9
SQP	Pt	4.40E+0	1.04E-1	1.26E-2	4.51E+0	1.45E-2	1.36E-1	2.45E-3	-4.34E+0	3.22E-1
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	9.09E-1	1.74E-3	2.40E-1	1.15E+0	2.43E-4	7.62E-3	3.67E-5	-7.32E-1	4.26E-1
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	9.09E-1	1.74E-3	2.40E-1	1.15E+0	2.43E-4	7.62E-3	3.67E-5	-7.32E-1	4.26E-1
PENRE	MJ	1.38E+1	1.29E-1	7.56E-2	1.40E+1	1.80E-2	1.84E-1	1.01E-3	-5.14E+0	9.06E+0
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	1.38E+1	1.29E-1	7.56E-2	1.40E+1	1.80E-2	1.84E-1	1.01E-3	-5.14E+0	9.06E+0
PET	MJ	1.47E+1	1.31E-1	3.15E-1	1.51E+1	1.83E-2	1.92E-1	1.05E-3	-5.87E+0	9.49E+0
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	5.68E-3	1.38E-5	5.82E-4	6.27E-3	1.92E-6	1.29E-4	1.18E-6	-1.16E-3	5.24E-3

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	6.70E-6	3.11E-7	6.73E-8	7.08E-6	4.34E-8	3.61E-7	1.16E-9	-3.92E-6	3.56E-6
NHWD	kg	3.53E-2	7.53E-3	6.56E-4	4.35E-2	1.05E-3	1.93E-2	4.20E-3	-4.59E-3	6.35E-2
RWD	kg	1.36E-5	8.26E-7	7.19E-8	1.45E-5	1.15E-7	7.56E-7	6.23E-9	-2.83E-6	1.26E-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

Ecochain Technologies BV
H.J.E. Wenckebachweg 123, 1096 AM Amsterdam, The Netherlands
https://www.ecochain.com
+31 20 3035 777