

Environmental Profile

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

Ecochain v3.5.64



Product: 3010777 - Ed Tech PP Bend HTB 45° 110
 Unit: 1 piece
 Manufacturer: Wavin - IT - SM Maddalena

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



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.

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	☑	☑	☑	☑									

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

This document and supporting material contain confidential and proprietary business information of Wavin - IT - SM Maddalena. These materials may be printed or (photo) copied or otherwise used only with the written consent of Wavin - IT - SM Maddalena.

Results

Environmental impact	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
GWP-total	kg CO2 eq	3.40E-1	2.55E-2	2.39E-2	3.90E-1	4.47E-3	2.63E-1	2.20E-3	-2.12E-1	4.48E-1
GWP-f	kg CO2 eq	4.13E-1	2.55E-2	2.04E-2	4.59E-1	4.47E-3	1.76E-1	2.20E-3	-2.42E-1	4.00E-1
GWP-b	kg CO2 eq	-7.26E-2	1.55E-5	1.72E-3	-7.09E-2	2.71E-6	8.70E-2	1.94E-6	3.03E-2	4.63E-2
GWP-luluc	kg CO2 eq	3.38E-4	9.02E-6	1.72E-3	2.07E-3	1.58E-6	2.51E-5	3.83E-8	-2.90E-4	1.81E-3
ODP	kg CFC11 eq	2.36E-8	5.87E-9	2.05E-9	3.15E-8	1.03E-9	3.71E-9	5.57E-11	-1.30E-8	2.33E-8
AP	mol H+ eq	1.68E-3	1.45E-4	8.24E-5	1.91E-3	2.55E-5	1.55E-4	1.34E-6	-7.81E-4	1.31E-3
EP-fw	kg P eq	8.94E-6	2.10E-7	3.17E-7	9.47E-6	3.68E-8	7.37E-7	1.75E-9	-5.37E-6	4.88E-6
EP-m	kg N eq	3.09E-4	5.19E-5	1.39E-5	3.75E-4	9.11E-6	4.73E-5	1.05E-6	-1.54E-4	2.78E-4
EP-T	mol N eq	3.41E-3	5.72E-4	1.56E-4	4.14E-3	1.00E-4	5.20E-4	5.41E-6	-1.73E-3	3.04E-3
POCP	kg NMVOC eq	1.42E-3	1.64E-4	4.86E-5	1.64E-3	2.87E-5	1.61E-4	2.02E-6	-6.89E-4	1.14E-3
ADP-mm	kg Sb eq	2.57E-5	6.59E-7	4.97E-7	2.69E-5	1.16E-7	5.96E-7	1.35E-9	-2.34E-6	2.53E-5
ADP-f	MJ	1.35E+1	3.91E-1	2.69E-1	1.41E+1	6.86E-2	4.55E-1	4.07E-3	-6.97E+0	7.69E+0
WDP	m3 depriv.	2.73E-1	1.20E-3	9.51E-2	3.69E-1	2.10E-4	8.96E-3	2.15E-5	-1.55E-1	2.23E-1
PM	disease inc.	1.76E-8	2.30E-9	8.25E-10	2.07E-8	4.03E-10	2.44E-9	2.80E-11	-8.96E-9	1.46E-8
IR	kBq U-235 eq	1.23E-2	1.71E-3	2.51E-4	1.43E-2	3.00E-4	1.42E-3	1.90E-5	-5.49E-3	1.05E-2
ETP-fw	CTUe	7.00E+0	3.18E-1	4.24E-1	7.74E+0	5.57E-2	6.10E-1	3.97E-3	-3.44E+0	4.97E+0
HTP-c	CTUh	1.50E-10	1.13E-11	2.26E-11	1.84E-10	1.98E-12	6.28E-11	1.01E-13	-7.90E-11	1.70E-10
HTP-nc	CTUh	3.44E-9	3.79E-10	4.69E-10	4.29E-9	6.64E-11	7.88E-10	2.34E-12	-1.79E-9	3.35E-9
SQP	Pt	8.11E+0	3.35E-1	4.89E-2	8.49E+0	5.87E-2	3.53E-1	1.04E-2	-1.09E+1	-1.97E+0
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	1.37E+0	5.61E-3	9.30E-1	2.31E+0	9.84E-4	2.18E-2	1.60E-4	-1.86E+0	4.71E-1
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	1.37E+0	5.61E-3	9.30E-1	2.31E+0	9.84E-4	2.18E-2	1.60E-4	-1.86E+0	4.71E-1
PENRE	MJ	1.44E+1	4.15E-1	2.93E-1	1.52E+1	7.28E-2	4.84E-1	4.32E-3	-7.52E+0	8.20E+0
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	1.44E+1	4.15E-1	2.93E-1	1.52E+1	7.28E-2	4.84E-1	4.32E-3	-7.52E+0	8.20E+0
PET	MJ	1.58E+1	4.21E-1	1.22E+0	1.75E+1	7.38E-2	5.06E-1	4.48E-3	-9.37E+0	8.67E+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	4.74E-3	4.43E-5	2.26E-3	7.05E-3	7.76E-6	3.18E-4	5.02E-6	-2.88E-3	4.49E-3

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	3.37E-6	1.00E-6	2.61E-7	4.64E-6	1.75E-7	8.04E-7	4.91E-9	-2.61E-6	3.01E-6
NHWD	kg	2.67E-2	2.42E-2	2.55E-3	5.35E-2	4.25E-3	2.30E-2	1.79E-2	-1.03E-2	8.84E-2
RWD	kg	1.33E-5	2.66E-6	2.79E-7	1.62E-5	4.66E-7	1.82E-6	2.66E-8	-5.28E-6	1.32E-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