

Environmental Profile

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

Ecochain v3.5.64



Product: 3018723 - Ed Tech PP Bend HTB 15° 32
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

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	4.40E-2	2.99E-3	3.00E-3	5.00E-2	5.94E-4	4.22E-2	2.95E-4	-2.78E-2	6.52E-2
GWP-f	kg CO2 eq	5.85E-2	2.98E-3	2.57E-3	6.41E-2	5.93E-4	2.47E-2	2.95E-4	-3.41E-2	5.56E-2
GWP-b	kg CO2 eq	-1.46E-2	1.81E-6	2.17E-4	-1.44E-2	3.60E-7	1.75E-2	2.60E-7	6.32E-3	9.45E-3
GWP-luluc	kg CO2 eq	6.21E-5	1.06E-6	2.17E-4	2.80E-4	2.10E-7	3.38E-6	5.31E-9	-5.68E-5	2.27E-4
ODP	kg CFC11 eq	3.93E-9	6.87E-10	2.58E-10	4.87E-9	1.37E-10	5.29E-10	7.49E-12	-2.01E-9	3.54E-9
AP	mol H+ eq	2.51E-4	1.70E-5	1.04E-5	2.78E-4	3.38E-6	2.19E-5	1.80E-7	-1.18E-4	1.85E-4
EP-fw	kg P eq	1.43E-6	2.45E-8	3.99E-8	1.49E-6	4.88E-9	1.00E-7	2.41E-10	-9.41E-7	6.57E-7
EP-m	kg N eq	4.76E-5	6.08E-6	1.75E-6	5.54E-5	1.21E-6	6.78E-6	1.44E-7	-2.41E-5	3.95E-5
EP-T	mol N eq	5.24E-4	6.70E-5	1.97E-5	6.11E-4	1.33E-5	7.45E-5	7.28E-7	-2.72E-4	4.27E-4
POCP	kg NMVOC eq	2.07E-4	1.92E-5	6.11E-6	2.33E-4	3.81E-6	2.29E-5	2.72E-7	-1.03E-4	1.56E-4
ADP-mm	kg Sb eq	4.10E-6	7.72E-8	6.25E-8	4.24E-6	1.53E-8	8.40E-8	1.83E-10	-3.52E-7	3.99E-6
ADP-f	MJ	1.82E+0	4.58E-2	3.38E-2	1.90E+0	9.11E-3	6.25E-2	5.48E-4	-9.56E-1	1.02E+0
WDP	m3 depriv.	3.78E-2	1.41E-4	1.20E-2	4.99E-2	2.79E-5	1.21E-3	3.47E-6	-2.40E-2	2.72E-2
PM	disease inc.	2.73E-9	2.69E-10	1.04E-10	3.10E-9	5.36E-11	3.42E-10	3.76E-12	-1.49E-9	2.01E-9
IR	kBq U-235 eq	1.90E-3	2.00E-4	3.15E-5	2.13E-3	3.98E-5	1.98E-4	2.54E-6	-9.04E-4	1.46E-3
ETP-fw	CTUe	1.29E+0	3.72E-2	5.33E-2	1.38E+0	7.39E-3	8.70E-2	5.46E-4	-6.50E-1	8.26E-1
HTP-c	CTUh	2.47E-11	1.32E-12	2.84E-12	2.89E-11	2.63E-13	8.99E-12	1.41E-14	-1.36E-11	2.45E-11
HTP-nc	CTUh	5.39E-10	4.43E-11	5.90E-11	6.43E-10	8.82E-12	1.10E-10	3.20E-13	-2.97E-10	4.64E-10
SQP	Pt	1.59E+0	3.92E-2	6.16E-3	1.64E+0	7.79E-3	4.80E-2	1.40E-3	-2.21E+0	-5.09E-1
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	2.63E-1	6.57E-4	1.17E-1	3.80E-1	1.31E-4	2.95E-3	2.13E-5	-3.73E-1	9.97E-3
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	2.63E-1	6.57E-4	1.17E-1	3.80E-1	1.31E-4	2.95E-3	2.13E-5	-3.73E-1	9.97E-3
PENRE	MJ	1.95E+0	4.86E-2	3.69E-2	2.04E+0	9.67E-3	6.66E-2	5.81E-4	-1.03E+0	1.09E+0
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	1.95E+0	4.86E-2	3.69E-2	2.04E+0	9.67E-3	6.66E-2	5.81E-4	-1.03E+0	1.09E+0
PET	MJ	2.22E+0	4.93E-2	1.54E-1	2.42E+0	9.80E-3	6.95E-2	6.02E-4	-1.40E+0	1.10E+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	6.94E-4	5.18E-6	2.84E-4	9.84E-4	1.03E-6	4.45E-5	6.73E-7	-4.73E-4	5.57E-4

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	5.66E-7	1.17E-7	3.28E-8	7.16E-7	2.33E-8	1.14E-7	6.65E-10	-4.08E-7	4.46E-7
NHWD	kg	4.45E-3	2.84E-3	3.20E-4	7.61E-3	5.64E-4	3.17E-3	2.40E-3	-1.74E-3	1.20E-2
RWD	kg	2.08E-6	3.11E-7	3.51E-8	2.42E-6	6.19E-8	2.56E-7	3.57E-9	-8.78E-7	1.87E-6
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