

Environmental Profile

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

Ecochain v3.5.64



Product: 3010778 - Ed Tech PP Bend HTB 45° 125
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	4.68E-1	3.07E-2	3.24E-2	5.32E-1	6.09E-3	3.68E-1	3.01E-3	-2.88E-1	6.20E-1
GWP-f	kg CO2 eq	5.70E-1	3.07E-2	2.77E-2	6.28E-1	6.09E-3	2.45E-1	3.01E-3	-3.33E-1	5.50E-1
GWP-b	kg CO2 eq	-1.02E-1	1.86E-5	2.34E-3	-9.94E-2	3.70E-6	1.23E-1	2.66E-6	4.46E-2	6.79E-2
GWP-luluc	kg CO2 eq	4.85E-4	1.09E-5	2.34E-3	2.84E-3	2.16E-6	3.42E-5	5.25E-8	-4.19E-4	2.45E-3
ODP	kg CFC11 eq	3.39E-8	7.08E-9	2.78E-9	4.38E-8	1.40E-9	5.10E-9	7.63E-11	-1.82E-8	3.21E-8
AP	mol H+ eq	2.33E-3	1.75E-4	1.12E-4	2.62E-3	3.47E-5	2.14E-4	1.83E-6	-1.08E-3	1.79E-3
EP-fw	kg P eq	1.26E-5	2.53E-7	4.31E-7	1.33E-5	5.01E-8	1.01E-6	2.40E-9	-7.61E-6	6.70E-6
EP-m	kg N eq	4.31E-4	6.26E-5	1.89E-5	5.13E-4	1.24E-5	6.52E-5	1.46E-6	-2.14E-4	3.78E-4
EP-T	mol N eq	4.76E-3	6.90E-4	2.12E-4	5.66E-3	1.37E-4	7.17E-4	7.41E-6	-2.41E-3	4.11E-3
POCP	kg NMVOC eq	1.97E-3	1.97E-4	6.60E-5	2.24E-3	3.91E-5	2.21E-4	2.77E-6	-9.51E-4	1.55E-3
ADP-mm	kg Sb eq	3.73E-5	7.95E-7	6.75E-7	3.88E-5	1.58E-7	8.18E-7	1.84E-9	-3.28E-6	3.65E-5
ADP-f	MJ	1.85E+1	4.71E-1	3.65E-1	1.93E+1	9.35E-2	6.21E-1	5.58E-3	-9.54E+0	1.05E+1
WDP	m3 depriv.	3.75E-1	1.45E-3	1.29E-1	5.05E-1	2.87E-4	1.23E-2	2.94E-5	-2.16E-1	3.02E-1
PM	disease inc.	2.46E-8	2.77E-9	1.12E-9	2.85E-8	5.50E-10	3.35E-9	3.83E-11	-1.26E-8	1.99E-8
IR	kBq U-235 eq	1.74E-2	2.06E-3	3.41E-4	1.98E-2	4.09E-4	1.94E-3	2.60E-5	-7.72E-3	1.45E-2
ETP-fw	CTUe	1.01E+1	3.83E-1	5.76E-1	1.10E+1	7.59E-2	8.44E-1	5.49E-3	-4.95E+0	7.01E+0
HTP-c	CTUh	2.10E-10	1.36E-11	3.07E-11	2.55E-10	2.70E-12	8.57E-11	1.39E-13	-1.11E-10	2.33E-10
HTP-nc	CTUh	4.80E-9	4.56E-10	6.37E-10	5.89E-9	9.05E-11	1.08E-9	3.21E-12	-2.51E-9	4.55E-9
SQP	Pt	1.14E+1	4.03E-1	6.65E-2	1.19E+1	8.00E-2	4.82E-1	1.43E-2	-1.56E+1	-3.14E+0
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	1.93E+0	6.76E-3	1.26E+0	3.20E+0	1.34E-3	2.97E-2	2.20E-4	-2.67E+0	5.67E-1
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	1.93E+0	6.76E-3	1.26E+0	3.20E+0	1.34E-3	2.97E-2	2.20E-4	-2.67E+0	5.67E-1
PENRE	MJ	1.98E+1	5.01E-1	3.98E-1	2.07E+1	9.92E-2	6.62E-1	5.92E-3	-1.03E+1	1.12E+1
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	1.98E+1	5.01E-1	3.98E-1	2.07E+1	9.92E-2	6.62E-1	5.92E-3	-1.03E+1	1.12E+1
PET	MJ	2.18E+1	5.07E-1	1.66E+0	2.39E+1	1.01E-1	6.92E-1	6.14E-3	-1.30E+1	1.18E+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	6.58E-3	5.33E-5	3.07E-3	9.70E-3	1.06E-5	4.40E-4	6.88E-6	-4.05E-3	6.11E-3

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	4.76E-6	1.21E-6	3.55E-7	6.33E-6	2.39E-7	1.11E-6	6.73E-9	-3.65E-6	4.03E-6
NHWD	kg	3.76E-2	2.92E-2	3.46E-3	7.02E-2	5.79E-3	3.15E-2	2.45E-2	-1.44E-2	1.18E-1
RWD	kg	1.89E-5	3.21E-6	3.79E-7	2.25E-5	6.36E-7	2.50E-6	3.64E-8	-7.44E-6	1.82E-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