

Environmental Profile

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

Ecochain v3.5.64



Product: 3010773 - Ed Tech PP Bend HTB 45° 40
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	7.01E-2	5.14E-3	4.35E-3	7.96E-2	8.71E-4	5.70E-2	4.41E-4	-4.23E-2	9.55E-2
GWP-f	kg CO2 eq	8.47E-2	5.14E-3	3.72E-3	9.35E-2	8.71E-4	3.97E-2	4.41E-4	-4.82E-2	8.63E-2
GWP-b	kg CO2 eq	-1.47E-2	3.12E-6	3.15E-4	-1.43E-2	5.29E-7	1.73E-2	3.92E-7	5.93E-3	8.93E-3
GWP-luluc	kg CO2 eq	7.13E-5	1.82E-6	3.14E-4	3.88E-4	3.08E-7	4.76E-6	7.85E-9	-5.68E-5	3.36E-4
ODP	kg CFC11 eq	6.18E-9	1.18E-9	3.74E-10	7.74E-9	2.01E-10	7.18E-10	1.12E-11	-2.77E-9	5.89E-9
AP	mol H+ eq	3.60E-4	2.93E-5	1.50E-5	4.04E-4	4.96E-6	3.04E-5	2.70E-7	-1.51E-4	2.89E-4
EP-fw	kg P eq	1.95E-6	4.23E-8	5.79E-8	2.05E-6	7.16E-9	1.41E-7	3.58E-10	-1.04E-6	1.15E-6
EP-m	kg N eq	6.50E-5	1.05E-5	2.54E-6	7.81E-5	1.77E-6	9.32E-6	2.32E-7	-3.00E-5	5.93E-5
EP-T	mol N eq	7.23E-4	1.15E-4	2.85E-5	8.67E-4	1.96E-5	1.03E-4	1.09E-6	-3.39E-4	6.52E-4
POCP	kg NMVOC eq	3.00E-4	3.30E-5	8.86E-6	3.42E-4	5.59E-6	3.15E-5	4.07E-7	-1.34E-4	2.46E-4
ADP-mm	kg Sb eq	7.52E-6	1.33E-7	9.07E-8	7.75E-6	2.25E-8	1.14E-7	2.72E-10	-5.28E-7	7.36E-6
ADP-f	MJ	2.70E+0	7.89E-2	4.90E-2	2.83E+0	1.34E-2	8.69E-2	8.21E-4	-1.36E+0	1.57E+0
WDP	m3 depriv.	5.56E-2	2.42E-4	1.73E-2	7.32E-2	4.10E-5	1.77E-3	4.72E-6	-2.98E-2	4.53E-2
PM	disease inc.	3.84E-9	4.64E-10	1.50E-10	4.46E-9	7.86E-11	4.67E-10	5.64E-12	-1.74E-9	3.27E-9
IR	kBq U-235 eq	2.93E-3	3.45E-4	4.57E-5	3.32E-3	5.84E-5	2.71E-4	3.82E-6	-1.08E-3	2.57E-3
ETP-fw	CTUe	1.52E+0	6.41E-2	7.73E-2	1.66E+0	1.09E-2	1.26E-1	8.63E-4	-6.75E-1	1.12E+0
HTP-c	CTUh	3.29E-11	2.28E-12	4.12E-12	3.93E-11	3.86E-13	1.22E-11	2.08E-14	-1.56E-11	3.63E-11
HTP-nc	CTUh	7.53E-10	7.64E-11	8.55E-11	9.15E-10	1.29E-11	1.54E-10	4.88E-13	-3.48E-10	7.34E-10
SQP	Pt	1.65E+0	6.75E-2	8.93E-3	1.73E+0	1.14E-2	6.72E-2	2.10E-3	-2.15E+0	-3.46E-1
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	2.78E-1	1.13E-3	1.70E-1	4.49E-1	1.92E-4	4.16E-3	3.25E-5	-3.67E-1	8.66E-2
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	2.78E-1	1.13E-3	1.70E-1	4.49E-1	1.92E-4	4.16E-3	3.25E-5	-3.67E-1	8.66E-2
PENRE	MJ	2.90E+0	8.38E-2	5.35E-2	3.03E+0	1.42E-2	9.26E-2	8.71E-4	-1.46E+0	1.68E+0
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	2.90E+0	8.38E-2	5.35E-2	3.03E+0	1.42E-2	9.26E-2	8.71E-4	-1.46E+0	1.68E+0
PET	MJ	3.17E+0	8.49E-2	2.23E-1	3.48E+0	1.44E-2	9.68E-2	9.03E-4	-1.83E+0	1.76E+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	1.01E-3	8.93E-6	4.12E-4	1.44E-3	1.51E-6	6.83E-5	1.01E-6	-5.57E-4	9.49E-4

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	7.73E-7	2.02E-7	4.76E-8	1.02E-6	3.42E-8	1.58E-7	9.93E-10	-5.50E-7	6.66E-7
NHWD	kg	5.87E-3	4.89E-3	4.64E-4	1.12E-2	8.28E-4	4.50E-3	3.60E-3	-2.01E-3	1.82E-2
RWD	kg	3.32E-6	5.37E-7	5.08E-8	3.90E-6	9.09E-8	3.48E-7	5.36E-9	-1.06E-6	3.29E-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



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