

Environmental Profile

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

Ecochain v3.5.64



Product: 3018739 - Ed Tech PP Bend HTB 30° 90
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	1.88E-1	1.49E-2	1.26E-2	2.16E-1	2.44E-3	1.79E-1	1.23E-3	-1.15E-1	2.84E-1
GWP-f	kg CO2 eq	2.47E-1	1.49E-2	1.08E-2	2.72E-1	2.44E-3	1.08E-1	1.23E-3	-1.43E-1	2.41E-1
GWP-b	kg CO2 eq	-5.84E-2	9.06E-6	9.11E-4	-5.75E-2	1.48E-6	7.11E-2	1.09E-6	2.78E-2	4.15E-2
GWP-luluc	kg CO2 eq	2.67E-4	5.28E-6	9.11E-4	1.18E-3	8.63E-7	1.38E-5	2.16E-8	-2.46E-4	9.52E-4
ODP	kg CFC11 eq	1.76E-8	3.44E-9	1.08E-9	2.21E-8	5.62E-10	2.19E-9	3.12E-11	-8.68E-9	1.62E-8
AP	mol H+ eq	1.05E-3	8.50E-5	4.35E-5	1.18E-3	1.39E-5	9.12E-5	7.49E-7	-4.93E-4	7.93E-4
EP-fw	kg P eq	6.10E-6	1.23E-7	1.68E-7	6.39E-6	2.01E-8	4.10E-7	9.86E-10	-4.01E-6	2.81E-6
EP-m	kg N eq	2.02E-4	3.04E-5	7.35E-6	2.40E-4	4.97E-6	2.83E-5	6.29E-7	-1.01E-4	1.73E-4
EP-T	mol N eq	2.21E-3	3.35E-4	8.26E-5	2.63E-3	5.48E-5	3.11E-4	3.03E-6	-1.14E-3	1.85E-3
POCP	kg NMVOC eq	8.83E-4	9.58E-5	2.57E-5	1.00E-3	1.57E-5	9.55E-5	1.13E-6	-4.28E-4	6.88E-4
ADP-mm	kg Sb eq	1.92E-5	3.86E-7	2.63E-7	1.98E-5	6.31E-8	3.46E-7	7.53E-10	-1.54E-6	1.87E-5
ADP-f	MJ	7.73E+0	2.29E-1	1.42E-1	8.10E+0	3.75E-2	2.56E-1	2.28E-3	-3.95E+0	4.45E+0
WDP	m3 depriv.	1.58E-1	7.03E-4	5.02E-2	2.09E-1	1.15E-4	5.03E-3	1.24E-5	-1.01E-1	1.14E-1
PM	disease inc.	1.16E-8	1.35E-9	4.36E-10	1.34E-8	2.20E-10	1.41E-9	1.56E-11	-6.26E-9	8.80E-9
IR	kBq U-235 eq	8.40E-3	1.00E-3	1.32E-4	9.53E-3	1.64E-4	8.15E-4	1.06E-5	-3.84E-3	6.69E-3
ETP-fw	CTUe	5.57E+0	1.86E-1	2.24E-1	5.98E+0	3.04E-2	3.69E-1	2.35E-3	-2.81E+0	3.57E+0
HTP-c	CTUh	1.02E-10	6.62E-12	1.19E-11	1.21E-10	1.08E-12	3.57E-11	5.71E-14	-5.64E-11	1.01E-10
HTP-nc	CTUh	2.24E-9	2.22E-10	2.48E-10	2.71E-9	3.63E-11	4.50E-10	1.34E-12	-1.25E-9	1.95E-9
SQP	Pt	6.51E+0	1.96E-1	2.59E-2	6.74E+0	3.20E-2	1.96E-1	5.83E-3	-9.29E+0	-2.32E+0
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	1.08E+0	3.28E-3	4.91E-1	1.58E+0	5.37E-4	1.21E-2	9.02E-5	-1.58E+0	1.02E-2
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	1.08E+0	3.28E-3	4.91E-1	1.58E+0	5.37E-4	1.21E-2	9.02E-5	-1.58E+0	1.02E-2
PENRE	MJ	8.29E+0	2.43E-1	1.55E-1	8.68E+0	3.98E-2	2.73E-1	2.42E-3	-4.26E+0	4.74E+0
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	8.29E+0	2.43E-1	1.55E-1	8.68E+0	3.98E-2	2.73E-1	2.42E-3	-4.26E+0	4.74E+0
PET	MJ	9.37E+0	2.46E-1	6.46E-1	1.03E+1	4.03E-2	2.85E-1	2.51E-3	-5.84E+0	4.75E+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	2.92E-3	2.59E-5	1.19E-3	4.14E-3	4.24E-6	1.91E-4	2.81E-6	-2.01E-3	2.33E-3

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	2.38E-6	5.85E-7	1.38E-7	3.11E-6	9.58E-8	4.72E-7	2.75E-9	-1.75E-6	1.93E-6
NHWD	kg	1.85E-2	1.42E-2	1.34E-3	3.41E-2	2.32E-3	1.31E-2	1.00E-2	-7.21E-3	5.23E-2
RWD	kg	9.37E-6	1.56E-6	1.47E-7	1.11E-5	2.55E-7	1.06E-6	1.49E-8	-3.74E-6	8.67E-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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