

Environmental Profile

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

Ecochain v3.5.64



Product: 3018741 - Ed Tech PP Bend HTB 15° 110
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	3.20E-1	2.40E-2	2.19E-2	3.66E-1	4.13E-3	2.56E-1	2.04E-3	-1.93E-1	4.35E-1
GWP-f	kg CO2 eq	3.92E-1	2.39E-2	1.87E-2	4.35E-1	4.13E-3	1.67E-1	2.04E-3	-2.29E-1	3.79E-1
GWP-b	kg CO2 eq	-7.27E-2	1.45E-5	1.58E-3	-7.11E-2	2.51E-6	8.95E-2	1.80E-6	3.62E-2	5.47E-2
GWP-luluc	kg CO2 eq	3.64E-4	8.48E-6	1.58E-3	1.96E-3	1.46E-6	2.33E-5	3.56E-8	-3.28E-4	1.65E-3
ODP	kg CFC11 eq	2.38E-8	5.52E-9	1.88E-9	3.12E-8	9.51E-10	3.54E-9	5.17E-11	-1.28E-8	2.30E-8
AP	mol H+ eq	1.62E-3	1.36E-4	7.56E-5	1.83E-3	2.35E-5	1.48E-4	1.24E-6	-7.64E-4	1.24E-3
EP-fw	kg P eq	8.93E-6	1.97E-7	2.91E-7	9.42E-6	3.39E-8	6.88E-7	1.63E-9	-5.70E-6	4.44E-6
EP-m	kg N eq	3.04E-4	4.88E-5	1.28E-5	3.65E-4	8.41E-6	4.53E-5	9.86E-7	-1.52E-4	2.68E-4
EP-T	mol N eq	3.34E-3	5.38E-4	1.44E-4	4.02E-3	9.27E-5	4.98E-4	5.02E-6	-1.72E-3	2.89E-3
POCP	kg NMVOC eq	1.36E-3	1.54E-4	4.46E-5	1.56E-3	2.65E-5	1.54E-4	1.88E-6	-6.67E-4	1.08E-3
ADP-mm	kg Sb eq	2.55E-5	6.20E-7	4.57E-7	2.65E-5	1.07E-7	5.67E-7	1.25E-9	-2.27E-6	2.49E-5
ADP-f	MJ	1.26E+1	3.68E-1	2.47E-1	1.32E+1	6.33E-2	4.27E-1	3.78E-3	-6.52E+0	7.19E+0
WDP	m3 depriv.	2.56E-1	1.13E-3	8.73E-2	3.45E-1	1.94E-4	8.35E-3	2.02E-5	-1.55E-1	1.98E-1
PM	disease inc.	1.72E-8	2.16E-9	7.57E-10	2.02E-8	3.72E-10	2.31E-9	2.60E-11	-9.14E-9	1.37E-8
IR	kBq U-235 eq	1.21E-2	1.61E-3	2.30E-4	1.39E-2	2.77E-4	1.34E-3	1.76E-5	-5.62E-3	9.95E-3
ETP-fw	CTUe	7.60E+0	2.98E-1	3.89E-1	8.29E+0	5.14E-2	5.83E-1	3.72E-3	-3.82E+0	5.10E+0
HTP-c	CTUh	1.48E-10	1.06E-11	2.08E-11	1.79E-10	1.83E-12	5.91E-11	9.42E-14	-7.97E-11	1.60E-10
HTP-nc	CTUh	3.36E-9	3.56E-10	4.31E-10	4.14E-9	6.13E-11	7.41E-10	2.18E-12	-1.83E-9	3.12E-9
SQP	Pt	8.31E+0	3.14E-1	4.49E-2	8.67E+0	5.42E-2	3.30E-1	9.68E-3	-1.19E+1	-2.86E+0
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	1.41E+0	5.27E-3	8.54E-1	2.27E+0	9.09E-4	2.03E-2	1.49E-4	-2.04E+0	2.44E-1
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	1.41E+0	5.27E-3	8.54E-1	2.27E+0	9.09E-4	2.03E-2	1.49E-4	-2.04E+0	2.44E-1
PENRE	MJ	1.35E+1	3.90E-1	2.69E-1	1.42E+1	6.72E-2	4.54E-1	4.01E-3	-7.03E+0	7.68E+0
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	1.35E+1	3.90E-1	2.69E-1	1.42E+1	6.72E-2	4.54E-1	4.01E-3	-7.03E+0	7.68E+0
PET	MJ	1.49E+1	3.96E-1	1.12E+0	1.64E+1	6.81E-2	4.75E-1	4.16E-3	-9.08E+0	7.92E+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	4.55E-3	4.16E-5	2.07E-3	6.66E-3	7.17E-6	3.01E-4	4.66E-6	-2.97E-3	4.00E-3

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	3.38E-6	9.40E-7	2.40E-7	4.56E-6	1.62E-7	7.64E-7	4.56E-9	-2.57E-6	2.92E-6
NHWD	kg	2.67E-2	2.28E-2	2.34E-3	5.19E-2	3.93E-3	2.16E-2	1.66E-2	-1.03E-2	8.36E-2
RWD	kg	1.31E-5	2.50E-6	2.56E-7	1.59E-5	4.31E-7	1.73E-6	2.47E-8	-5.42E-6	1.27E-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



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