

Environmental Profile

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

Ecochain v3.5.64



Product: 3011027 - Ed Tech PP Reducer Type A HTR 90x110
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	2.29E-1	1.75E-2	1.56E-2	2.62E-1	2.97E-3	1.94E-1	1.47E-3	-1.40E-1	3.21E-1
GWP-f	kg CO2 eq	2.87E-1	1.75E-2	1.34E-2	3.18E-1	2.97E-3	1.23E-1	1.47E-3	-1.67E-1	2.78E-1
GWP-b	kg CO2 eq	-5.83E-2	1.06E-5	1.13E-3	-5.71E-2	1.80E-6	7.11E-2	1.31E-6	2.78E-2	4.17E-2
GWP-luluc	kg CO2 eq	2.77E-4	6.19E-6	1.13E-3	1.41E-3	1.05E-6	1.67E-5	2.57E-8	-2.50E-4	1.18E-3
ODP	kg CFC11 eq	1.83E-8	4.03E-9	1.34E-9	2.37E-8	6.84E-10	2.58E-9	3.74E-11	-9.59E-9	1.74E-8
AP	mol H+ eq	1.19E-3	9.97E-5	5.39E-5	1.35E-3	1.69E-5	1.07E-4	8.97E-7	-5.62E-4	9.09E-4
EP-fw	kg P eq	6.67E-6	1.44E-7	2.07E-7	7.02E-6	2.44E-8	4.95E-7	1.18E-9	-4.28E-6	3.26E-6
EP-m	kg N eq	2.25E-4	3.57E-5	9.10E-6	2.70E-4	6.05E-6	3.30E-5	7.26E-7	-1.13E-4	1.97E-4
EP-T	mol N eq	2.47E-3	3.93E-4	1.02E-4	2.97E-3	6.66E-5	3.63E-4	3.63E-6	-1.27E-3	2.13E-3
POCP	kg NMVOC eq	1.01E-3	1.12E-4	3.18E-5	1.15E-3	1.90E-5	1.12E-4	1.36E-6	-4.90E-4	7.92E-4
ADP-mm	kg Sb eq	1.97E-5	4.53E-7	3.25E-7	2.05E-5	7.67E-8	4.10E-7	9.02E-10	-1.70E-6	1.93E-5
ADP-f	MJ	9.17E+0	2.69E-1	1.76E-1	9.61E+0	4.55E-2	3.08E-1	2.73E-3	-4.72E+0	5.25E+0
WDP	m3 depriv.	1.86E-1	8.25E-4	6.22E-2	2.49E-1	1.40E-4	6.03E-3	1.44E-5	-1.14E-1	1.42E-1
PM	disease inc.	1.29E-8	1.58E-9	5.39E-10	1.50E-8	2.68E-10	1.67E-9	1.88E-11	-6.83E-9	1.01E-8
IR	kBq U-235 eq	9.12E-3	1.17E-3	1.64E-4	1.05E-2	1.99E-4	9.69E-4	1.27E-5	-4.19E-3	7.44E-3
ETP-fw	CTUe	5.77E+0	2.18E-1	2.77E-1	6.26E+0	3.70E-2	4.27E-1	2.73E-3	-2.90E+0	3.83E+0
HTP-c	CTUh	1.11E-10	7.76E-12	1.48E-11	1.33E-10	1.32E-12	4.26E-11	6.81E-14	-6.05E-11	1.17E-10
HTP-nc	CTUh	2.49E-9	2.60E-10	3.07E-10	3.06E-9	4.41E-11	5.36E-10	1.58E-12	-1.37E-9	2.27E-9
SQP	Pt	6.56E+0	2.30E-1	3.20E-2	6.83E+0	3.90E-2	2.37E-1	7.00E-3	-9.31E+0	-2.20E+0
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	1.10E+0	3.85E-3	6.08E-1	1.71E+0	6.53E-4	1.46E-2	1.08E-4	-1.59E+0	1.41E-1
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	1.10E+0	3.85E-3	6.08E-1	1.71E+0	6.53E-4	1.46E-2	1.08E-4	-1.59E+0	1.41E-1
PENRE	MJ	9.83E+0	2.85E-1	1.92E-1	1.03E+1	4.83E-2	3.28E-1	2.90E-3	-5.09E+0	5.60E+0
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	9.83E+0	2.85E-1	1.92E-1	1.03E+1	4.83E-2	3.28E-1	2.90E-3	-5.09E+0	5.60E+0
PET	MJ	1.09E+1	2.89E-1	8.00E-1	1.20E+1	4.90E-2	3.42E-1	3.01E-3	-6.68E+0	5.74E+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	3.34E-3	3.04E-5	1.48E-3	4.85E-3	5.15E-6	2.21E-4	3.37E-6	-2.21E-3	2.87E-3

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	2.55E-6	6.87E-7	1.71E-7	3.41E-6	1.16E-7	5.55E-7	3.29E-9	-1.92E-6	2.16E-6
NHWD	kg	2.00E-2	1.67E-2	1.66E-3	3.84E-2	2.82E-3	1.56E-2	1.20E-2	-7.81E-3	6.10E-2
RWD	kg	9.99E-6	1.83E-6	1.82E-7	1.20E-5	3.10E-7	1.25E-6	1.78E-8	-4.06E-6	9.52E-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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