

Environmental Profile

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

Ecochain v3.5.64



Product: 3011040 - Ed Tech PP Reducer Type B HTR GY 110x50
 Unit: 1 piece
 Manufacturer: Wavin - IT - SM Maddalena

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



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.

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

A1 Raw material supply A2 Transport A3 Manufacturing

Construction process stage

A4 Transport gate to site
 A5 Assembly / Construction installation process

Use stage

B1 Use B2 Maintenance B3 Repair B4 Replacement B5 Refurbishment
 B6 Operational energy use B7 Operational water use

End-of-Life stage

C1 De-construction demolition C2 Transport C3 Waste processing
 C4 Disposal

Benefits and loads beyond the system boundaries

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	1.31E-2	1.31E-2	2.14E-1	2.41E-3	1.25E-1	1.17E-3	-1.11E-1	2.31E-1
GWP-f	kg CO2 eq	2.16E-1	1.31E-2	1.12E-2	2.41E-1	2.41E-3	8.76E-2	1.17E-3	-1.28E-1	2.04E-1
GWP-b	kg CO2 eq	-2.87E-2	7.97E-6	9.44E-4	-2.78E-2	1.46E-6	3.71E-2	1.03E-6	1.74E-2	2.68E-2
GWP-luluc	kg CO2 eq	1.77E-4	4.65E-6	9.43E-4	1.13E-3	8.53E-7	1.37E-5	2.04E-8	-1.59E-4	9.80E-4
ODP	kg CFC11 eq	1.06E-8	3.03E-9	1.12E-9	1.48E-8	5.56E-10	2.02E-9	2.96E-11	-6.58E-9	1.08E-8
AP	mol H+ eq	8.64E-4	7.48E-5	4.51E-5	9.84E-4	1.37E-5	8.38E-5	7.09E-7	-4.19E-4	6.63E-4
EP-fw	kg P eq	4.58E-6	1.08E-7	1.74E-7	4.86E-6	1.98E-8	4.02E-7	9.32E-10	-2.94E-6	2.34E-6
EP-m	kg N eq	1.60E-4	2.68E-5	7.61E-6	1.94E-4	4.91E-6	2.54E-5	5.26E-7	-8.17E-5	1.43E-4
EP-T	mol N eq	1.76E-3	2.95E-4	8.55E-5	2.14E-3	5.41E-5	2.79E-4	2.87E-6	-9.19E-4	1.56E-3
POCP	kg NMVOC eq	7.28E-4	8.43E-5	2.66E-5	8.39E-4	1.55E-5	8.68E-5	1.07E-6	-3.66E-4	5.77E-4
ADP-mm	kg Sb eq	1.06E-5	3.40E-7	2.72E-7	1.12E-5	6.24E-8	3.26E-7	7.15E-10	-1.14E-6	1.04E-5
ADP-f	MJ	7.10E+0	2.02E-1	1.47E-1	7.45E+0	3.70E-2	2.48E-1	2.16E-3	-3.75E+0	3.99E+0
WDP	m3 depriv.	1.44E-1	6.19E-4	5.20E-2	1.96E-1	1.14E-4	4.81E-3	1.18E-5	-8.59E-2	1.15E-1
PM	disease inc.	8.86E-9	1.19E-9	4.51E-10	1.05E-8	2.18E-10	1.33E-9	1.49E-11	-4.78E-9	7.28E-9
IR	kBq U-235 eq	5.89E-3	8.81E-4	1.37E-4	6.91E-3	1.62E-4	7.73E-4	1.00E-5	-2.95E-3	4.91E-3
ETP-fw	CTUe	3.71E+0	1.64E-1	2.32E-1	4.11E+0	3.01E-2	3.20E-1	2.01E-3	-1.90E+0	2.56E+0
HTP-c	CTUh	7.38E-11	5.83E-12	1.24E-11	9.19E-11	1.07E-12	3.45E-11	5.39E-14	-3.95E-11	8.80E-11
HTP-nc	CTUh	1.75E-9	1.95E-10	2.57E-10	2.21E-9	3.58E-11	4.26E-10	1.22E-12	-9.60E-10	1.71E-9
SQP	Pt	3.52E+0	1.72E-1	2.68E-2	3.71E+0	3.17E-2	1.93E-1	5.54E-3	-5.35E+0	-1.41E+0
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	6.16E-1	2.89E-3	5.09E-1	1.13E+0	5.31E-4	1.19E-2	8.44E-5	-9.31E-1	2.09E-1
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	6.16E-1	2.89E-3	5.09E-1	1.13E+0	5.31E-4	1.19E-2	8.44E-5	-9.31E-1	2.09E-1
PENRE	MJ	7.62E+0	2.14E-1	1.60E-1	7.99E+0	3.93E-2	2.64E-1	2.29E-3	-4.04E+0	4.26E+0
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	7.62E+0	2.14E-1	1.60E-1	7.99E+0	3.93E-2	2.64E-1	2.29E-3	-4.04E+0	4.26E+0
PET	MJ	8.23E+0	2.17E-1	6.69E-1	9.12E+0	3.98E-2	2.76E-1	2.38E-3	-4.97E+0	4.47E+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	2.45E-3	2.28E-5	1.24E-3	3.71E-3	4.19E-6	1.62E-4	2.66E-6	-1.59E-3	2.29E-3

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	1.65E-6	5.16E-7	1.43E-7	2.31E-6	9.46E-8	4.34E-7	2.61E-9	-1.31E-6	1.53E-6
NHWD	kg	1.35E-2	1.25E-2	1.39E-3	2.74E-2	2.29E-3	1.24E-2	9.51E-3	-5.24E-3	4.63E-2
RWD	kg	6.13E-6	1.37E-6	1.53E-7	7.65E-6	2.52E-7	9.93E-7	1.41E-8	-2.81E-6	6.10E-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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