

Environmental Profile

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

Ecochain v3.5.64



Product: 3011022 - Ed Tech PP Reducer Type A HTR 40x75
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	1.03E-1	8.04E-3	7.50E-3	1.19E-1	1.40E-3	9.01E-2	6.89E-4	-6.60E-2	1.45E-1
GWP-f	kg CO2 eq	1.32E-1	8.04E-3	6.42E-3	1.47E-1	1.40E-3	5.55E-2	6.89E-4	-7.77E-2	1.27E-1
GWP-b	kg CO2 eq	-2.91E-2	4.88E-6	5.42E-4	-2.86E-2	8.48E-7	3.46E-2	6.08E-7	1.18E-2	1.79E-2
GWP-luluc	kg CO2 eq	1.22E-4	2.84E-6	5.42E-4	6.67E-4	4.94E-7	7.91E-6	1.20E-8	-1.10E-4	5.66E-4
ODP	kg CFC11 eq	7.82E-9	1.85E-9	6.44E-10	1.03E-8	3.22E-10	1.20E-9	1.74E-11	-4.34E-9	7.52E-9
AP	mol H+ eq	5.44E-4	4.58E-5	2.59E-5	6.16E-4	7.96E-6	5.00E-5	4.18E-7	-2.61E-4	4.13E-4
EP-fw	kg P eq	3.00E-6	6.61E-8	9.98E-8	3.16E-6	1.15E-8	2.33E-7	5.49E-10	-1.92E-6	1.49E-6
EP-m	kg N eq	1.02E-4	1.64E-5	4.37E-6	1.23E-4	2.85E-6	1.53E-5	3.29E-7	-5.21E-5	8.95E-5
EP-T	mol N eq	1.13E-3	1.81E-4	4.92E-5	1.36E-3	3.14E-5	1.68E-4	1.69E-6	-5.89E-4	9.69E-4
POCP	kg NMVOC eq	4.61E-4	5.16E-5	1.53E-5	5.28E-4	8.97E-6	5.20E-5	6.33E-7	-2.29E-4	3.61E-4
ADP-mm	kg Sb eq	8.17E-6	2.08E-7	1.56E-7	8.54E-6	3.61E-8	1.92E-7	4.21E-10	-7.63E-7	8.00E-6
ADP-f	MJ	4.26E+0	1.23E-1	8.45E-2	4.47E+0	2.14E-2	1.45E-1	1.27E-3	-2.22E+0	2.42E+0
WDP	m3 depriv.	8.64E-2	3.79E-4	2.99E-2	1.17E-1	6.58E-5	2.82E-3	6.80E-6	-5.22E-2	6.73E-2
PM	disease inc.	5.83E-9	7.25E-10	2.59E-10	6.82E-9	1.26E-10	7.84E-10	8.76E-12	-3.14E-9	4.60E-9
IR	kBq U-235 eq	4.02E-3	5.39E-4	7.88E-5	4.63E-3	9.37E-5	4.55E-4	5.93E-6	-1.90E-3	3.29E-3
ETP-fw	CTUe	2.51E+0	1.00E-1	1.33E-1	2.74E+0	1.74E-2	1.96E-1	1.24E-3	-1.28E+0	1.68E+0
HTP-c	CTUh	5.12E-11	3.56E-12	7.11E-12	6.18E-11	6.20E-13	2.01E-11	3.18E-14	-2.84E-11	5.42E-11
HTP-nc	CTUh	1.13E-9	1.19E-10	1.47E-10	1.40E-9	2.08E-11	2.51E-10	7.32E-13	-6.26E-10	1.05E-9
SQP	Pt	3.17E+0	1.06E-1	1.54E-2	3.29E+0	1.83E-2	1.12E-1	3.27E-3	-4.28E+0	-8.55E-1
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	5.26E-1	1.77E-3	2.92E-1	8.20E-1	3.08E-4	6.89E-3	5.01E-5	-7.25E-1	1.03E-1
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	5.26E-1	1.77E-3	2.92E-1	8.20E-1	3.08E-4	6.89E-3	5.01E-5	-7.25E-1	1.03E-1
PENRE	MJ	4.57E+0	1.31E-1	9.22E-2	4.79E+0	2.28E-2	1.54E-1	1.35E-3	-2.39E+0	2.58E+0
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	4.57E+0	1.31E-1	9.22E-2	4.79E+0	2.28E-2	1.54E-1	1.35E-3	-2.39E+0	2.58E+0
PET	MJ	5.09E+0	1.33E-1	3.85E-1	5.61E+0	2.31E-2	1.61E-1	1.40E-3	-3.11E+0	2.68E+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	1.52E-3	1.40E-5	7.10E-4	2.25E-3	2.43E-6	1.01E-4	1.57E-6	-9.97E-4	1.36E-3

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	1.15E-6	3.15E-7	8.21E-8	1.54E-6	5.48E-8	2.58E-7	1.54E-9	-8.81E-7	9.78E-7
NHWD	kg	9.09E-3	7.65E-3	8.00E-4	1.75E-2	1.33E-3	7.31E-3	5.61E-3	-3.65E-3	2.81E-2
RWD	kg	4.34E-6	8.39E-7	8.77E-8	5.26E-6	1.46E-7	5.86E-7	8.33E-9	-1.84E-6	4.16E-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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