

Environmental Profile

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

Ecochain v3.5.64



Product: 3010982 - Ed Tech Branch HTEA 87,5° 90x90
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					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	3.79E-1	2.84E-2	2.42E-2	4.32E-1	4.67E-3	3.19E-1	2.35E-3	-2.20E-1	5.38E-1
GWP-f	kg CO2 eq	4.66E-1	2.83E-2	2.07E-2	5.15E-1	4.67E-3	2.09E-1	2.35E-3	-2.68E-1	4.63E-1
GWP-b	kg CO2 eq	-8.76E-2	1.72E-5	1.75E-3	-8.58E-2	2.84E-6	1.10E-1	2.09E-6	4.87E-2	7.25E-2
GWP-luluc	kg CO2 eq	4.74E-4	1.00E-5	1.75E-3	2.23E-3	1.65E-6	2.61E-5	4.12E-8	-4.26E-4	1.83E-3
ODP	kg CFC11 eq	3.34E-8	6.53E-9	2.07E-9	4.20E-8	1.08E-9	4.10E-9	5.98E-11	-1.61E-8	3.12E-8
AP	mol H+ eq	1.97E-3	1.61E-4	8.34E-5	2.22E-3	2.66E-5	1.71E-4	1.44E-6	-9.00E-4	1.52E-3
EP-fw	kg P eq	1.13E-5	2.33E-7	3.21E-7	1.18E-5	3.84E-8	7.75E-7	1.89E-9	-7.13E-6	5.52E-6
EP-m	kg N eq	3.74E-4	5.78E-5	1.41E-5	4.45E-4	9.52E-6	5.31E-5	1.22E-6	-1.82E-4	3.28E-4
EP-T	mol N eq	4.09E-3	6.36E-4	1.58E-4	4.89E-3	1.05E-4	5.83E-4	5.81E-6	-2.05E-3	3.53E-3
POCP	kg NMVOC eq	1.66E-3	1.82E-4	4.92E-5	1.89E-3	3.00E-5	1.79E-4	2.17E-6	-7.80E-4	1.32E-3
ADP-mm	kg Sb eq	3.77E-5	7.33E-7	5.03E-7	3.90E-5	1.21E-7	6.49E-7	1.44E-9	-2.90E-6	3.68E-5
ADP-f	MJ	1.48E+1	4.35E-1	2.72E-1	1.55E+1	7.17E-2	4.84E-1	4.37E-3	-7.46E+0	8.56E+0
WDP	m3 depriv.	3.01E-1	1.33E-3	9.63E-2	3.99E-1	2.20E-4	9.59E-3	2.29E-5	-1.85E-1	2.24E-1
PM	disease inc.	2.16E-8	2.56E-9	8.35E-10	2.50E-8	4.21E-10	2.64E-9	3.00E-11	-1.11E-8	1.69E-8
IR	kBq U-235 eq	1.60E-2	1.90E-3	2.54E-4	1.81E-2	3.13E-4	1.53E-3	2.04E-5	-6.90E-3	1.31E-2
ETP-fw	CTUe	1.00E+1	3.53E-1	4.29E-1	1.08E+1	5.82E-2	7.00E-1	4.54E-3	-4.93E+0	6.64E+0
HTP-c	CTUh	1.83E-10	1.26E-11	2.29E-11	2.18E-10	2.07E-12	6.67E-11	1.09E-13	-9.66E-11	1.91E-10
HTP-nc	CTUh	4.16E-9	4.21E-10	4.75E-10	5.05E-9	6.94E-11	8.50E-10	2.58E-12	-2.23E-9	3.74E-9
SQP	Pt	1.03E+1	3.72E-1	4.96E-2	1.07E+1	6.13E-2	3.71E-1	1.12E-2	-1.52E+1	-4.11E+0
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	1.74E+0	6.24E-3	9.41E-1	2.69E+0	1.03E-3	2.29E-2	1.74E-4	-2.61E+0	9.70E-2
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	1.74E+0	6.24E-3	9.41E-1	2.69E+0	1.03E-3	2.29E-2	1.74E-4	-2.61E+0	9.70E-2
PENRE	MJ	1.58E+1	4.62E-1	2.97E-1	1.66E+1	7.61E-2	5.15E-1	4.64E-3	-8.05E+0	9.13E+0
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	1.58E+1	4.62E-1	2.97E-1	1.66E+1	7.61E-2	5.15E-1	4.64E-3	-8.05E+0	9.13E+0
PET	MJ	1.76E+1	4.68E-1	1.24E+0	1.93E+1	7.71E-2	5.38E-1	4.81E-3	-1.07E+1	9.23E+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	5.53E-3	4.92E-5	2.29E-3	7.87E-3	8.11E-6	3.67E-4	5.39E-6	-3.64E-3	4.61E-3

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	4.34E-6	1.11E-6	2.64E-7	5.72E-6	1.83E-7	8.88E-7	5.27E-9	-3.18E-6	3.61E-6
NHWD	kg	3.36E-2	2.70E-2	2.58E-3	6.32E-2	4.44E-3	2.48E-2	1.92E-2	-1.25E-2	9.91E-2
RWD	kg	1.79E-5	2.96E-6	2.82E-7	2.11E-5	4.87E-7	1.98E-6	2.86E-8	-6.71E-6	1.69E-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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