

Environmental Profile

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

Ecochain v3.5.64



Product: 3010792 - Ed Tech Branch HTEA 45° 50x50
 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	1.71E-1	1.20E-2	1.04E-2	1.93E-1	2.03E-3	1.30E-1	1.03E-3	-9.65E-2	2.30E-1
GWP-f	kg CO2 eq	2.00E-1	1.20E-2	8.86E-3	2.21E-1	2.03E-3	9.28E-2	1.03E-3	-1.14E-1	2.03E-1
GWP-b	kg CO2 eq	-2.92E-2	7.31E-6	7.48E-4	-2.85E-2	1.23E-6	3.71E-2	9.15E-7	1.75E-2	2.62E-2
GWP-luluc	kg CO2 eq	1.84E-4	4.26E-6	7.48E-4	9.36E-4	7.19E-7	1.12E-5	1.82E-8	-1.56E-4	7.92E-4
ODP	kg CFC11 eq	1.47E-8	2.77E-9	8.89E-10	1.84E-8	4.68E-10	1.72E-9	2.62E-11	-6.67E-9	1.39E-8
AP	mol H+ eq	8.50E-4	6.86E-5	3.57E-5	9.54E-4	1.16E-5	7.24E-5	6.30E-7	-3.66E-4	6.73E-4
EP-fw	kg P eq	4.72E-6	9.90E-8	1.38E-7	4.96E-6	1.67E-8	3.32E-7	8.32E-10	-2.73E-6	2.58E-6
EP-m	kg N eq	1.56E-4	2.45E-5	6.04E-6	1.87E-4	4.14E-6	2.23E-5	5.41E-7	-7.29E-5	1.41E-4
EP-T	mol N eq	1.73E-3	2.70E-4	6.78E-5	2.06E-3	4.56E-5	2.45E-4	2.55E-6	-8.22E-4	1.54E-3
POCP	kg NMVOC eq	7.07E-4	7.73E-5	2.11E-5	8.06E-4	1.30E-5	7.53E-5	9.50E-7	-3.19E-4	5.76E-4
ADP-mm	kg Sb eq	1.75E-5	3.11E-7	2.16E-7	1.80E-5	5.26E-8	2.73E-7	6.34E-10	-1.25E-6	1.71E-5
ADP-f	MJ	6.35E+0	1.85E-1	1.17E-1	6.66E+0	3.12E-2	2.06E-1	1.91E-3	-3.19E+0	3.70E+0
WDP	m3 depriv.	1.31E-1	5.67E-4	4.13E-2	1.72E-1	9.57E-5	4.15E-3	1.07E-5	-7.45E-2	1.02E-1
PM	disease inc.	9.12E-9	1.09E-9	3.58E-10	1.06E-8	1.83E-10	1.11E-9	1.31E-11	-4.32E-9	7.55E-9
IR	kBq U-235 eq	6.95E-3	8.07E-4	1.09E-4	7.87E-3	1.36E-4	6.45E-4	8.92E-6	-2.72E-3	5.93E-3
ETP-fw	CTUe	3.96E+0	1.50E-1	1.84E-1	4.29E+0	2.53E-2	3.01E-1	2.01E-3	-1.83E+0	2.79E+0
HTP-c	CTUh	7.60E-11	5.34E-12	9.81E-12	9.11E-11	9.01E-13	2.86E-11	4.83E-14	-3.67E-11	8.41E-11
HTP-nc	CTUh	1.78E-9	1.79E-10	2.03E-10	2.16E-9	3.02E-11	3.64E-10	1.14E-12	-8.70E-10	1.69E-9
SQP	Pt	3.59E+0	1.58E-1	2.12E-2	3.77E+0	2.67E-2	1.58E-1	4.90E-3	-5.34E+0	-1.39E+0
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	6.20E-1	2.65E-3	4.03E-1	1.03E+0	4.47E-4	9.79E-3	7.59E-5	-9.24E-1	1.13E-1
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	6.20E-1	2.65E-3	4.03E-1	1.03E+0	4.47E-4	9.79E-3	7.59E-5	-9.24E-1	1.13E-1
PENRE	MJ	6.81E+0	1.96E-1	1.27E-1	7.13E+0	3.31E-2	2.19E-1	2.03E-3	-3.44E+0	3.95E+0
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	6.81E+0	1.96E-1	1.27E-1	7.13E+0	3.31E-2	2.19E-1	2.03E-3	-3.44E+0	3.95E+0
PET	MJ	7.43E+0	1.99E-1	5.31E-1	8.16E+0	3.36E-2	2.29E-1	2.11E-3	-4.37E+0	4.06E+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	2.40E-3	2.09E-5	9.80E-4	3.40E-3	3.53E-6	1.61E-4	2.36E-6	-1.43E-3	2.13E-3

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	1.83E-6	4.72E-7	1.13E-7	2.41E-6	7.97E-8	3.76E-7	2.31E-9	-1.30E-6	1.57E-6
NHWD	kg	1.40E-2	1.15E-2	1.10E-3	2.66E-2	1.93E-3	1.06E-2	8.41E-3	-4.79E-3	4.27E-2
RWD	kg	7.85E-6	1.26E-6	1.21E-7	9.23E-6	2.12E-7	8.31E-7	1.25E-8	-2.64E-6	7.64E-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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