

Environmental Profile

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

Ecochain v3.5.64



Product: 3010963 - Ed Tech Branch Reduced HTEA 45° 110x40
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	4.29E-1	3.09E-2	2.88E-2	4.89E-1	5.42E-3	3.08E-1	2.68E-3	-2.56E-1	5.48E-1
GWP-f	kg CO2 eq	5.01E-1	3.09E-2	2.47E-2	5.57E-1	5.42E-3	2.18E-1	2.68E-3	-2.92E-1	4.91E-1
GWP-b	kg CO2 eq	-7.25E-2	1.87E-5	2.08E-3	-7.04E-2	3.29E-6	8.95E-2	2.37E-6	3.60E-2	5.51E-2
GWP-luluc	kg CO2 eq	4.02E-4	1.09E-5	2.08E-3	2.49E-3	1.92E-6	3.02E-5	4.68E-8	-3.39E-4	2.19E-3
ODP	kg CFC11 eq	2.96E-8	7.11E-9	2.47E-9	3.91E-8	1.25E-9	4.47E-9	6.79E-11	-1.57E-8	2.93E-8
AP	mol H+ eq	2.04E-3	1.76E-4	9.95E-5	2.32E-3	3.09E-5	1.87E-4	1.63E-6	-9.29E-4	1.61E-3
EP-fw	kg P eq	1.09E-5	2.54E-7	3.83E-7	1.15E-5	4.46E-8	8.89E-7	2.14E-9	-6.35E-6	6.09E-6
EP-m	kg N eq	3.73E-4	6.29E-5	1.68E-5	4.53E-4	1.10E-5	5.70E-5	1.30E-6	-1.82E-4	3.40E-4
EP-T	mol N eq	4.13E-3	6.93E-4	1.89E-4	5.01E-3	1.22E-4	6.27E-4	6.59E-6	-2.05E-3	3.72E-3
POCP	kg NMVOC eq	1.72E-3	1.98E-4	5.86E-5	1.98E-3	3.48E-5	1.94E-4	2.47E-6	-8.16E-4	1.40E-3
ADP-mm	kg Sb eq	3.33E-5	7.98E-7	6.00E-7	3.47E-5	1.40E-7	7.18E-7	1.64E-9	-2.86E-6	3.27E-5
ADP-f	MJ	1.63E+1	4.74E-1	3.24E-1	1.71E+1	8.32E-2	5.48E-1	4.96E-3	-8.41E+0	9.37E+0
WDP	m3 depriv.	3.32E-1	1.45E-3	1.15E-1	4.48E-1	2.55E-4	1.09E-2	2.66E-5	-1.86E-1	2.73E-1
PM	disease inc.	2.13E-8	2.79E-9	9.96E-10	2.51E-8	4.89E-10	2.94E-9	3.41E-11	-1.05E-8	1.80E-8
IR	kBq U-235 eq	1.52E-2	2.07E-3	3.03E-4	1.76E-2	3.63E-4	1.70E-3	2.31E-5	-6.53E-3	1.32E-2
ETP-fw	CTUe	8.47E+0	3.85E-1	5.12E-1	9.36E+0	6.75E-2	7.44E-1	4.89E-3	-4.06E+0	6.12E+0
HTP-c	CTUh	1.78E-10	1.37E-11	2.73E-11	2.19E-10	2.40E-12	7.57E-11	1.24E-13	-8.98E-11	2.08E-10
HTP-nc	CTUh	4.18E-9	4.58E-10	5.66E-10	5.20E-9	8.05E-11	9.53E-10	2.86E-12	-2.11E-9	4.13E-9
SQP	Pt	8.53E+0	4.05E-1	5.91E-2	9.00E+0	7.11E-2	4.26E-1	1.27E-2	-1.20E+1	-2.48E+0
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	1.47E+0	6.79E-3	1.12E+0	2.60E+0	1.19E-3	2.63E-2	1.95E-4	-2.07E+0	5.64E-1
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	1.47E+0	6.79E-3	1.12E+0	2.60E+0	1.19E-3	2.63E-2	1.95E-4	-2.07E+0	5.64E-1
PENRE	MJ	1.75E+1	5.03E-1	3.54E-1	1.84E+1	8.83E-2	5.84E-1	5.27E-3	-9.07E+0	9.99E+0
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	1.75E+1	5.03E-1	3.54E-1	1.84E+1	8.83E-2	5.84E-1	5.27E-3	-9.07E+0	9.99E+0
PET	MJ	1.90E+1	5.10E-1	1.48E+0	2.10E+1	8.95E-2	6.10E-1	5.46E-3	-1.11E+1	1.06E+1
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	5.80E-3	5.36E-5	2.73E-3	8.58E-3	9.41E-6	3.90E-4	6.12E-6	-3.45E-3	5.54E-3

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	4.07E-6	1.21E-6	3.15E-7	5.60E-6	2.13E-7	9.71E-7	5.99E-9	-3.11E-6	3.69E-6
NHWD	kg	3.21E-2	2.94E-2	3.07E-3	6.45E-2	5.15E-3	2.78E-2	2.18E-2	-1.18E-2	1.08E-1
RWD	kg	1.65E-5	3.22E-6	3.37E-7	2.01E-5	5.66E-7	2.19E-6	3.24E-8	-6.27E-6	1.66E-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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