

Environmental Profile

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

Ecochain v3.5.64



Product: 3011013 - Ed Tech Coupler 2 Sockets HTMM 40
 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	☑	☑	☑	☑									

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 non-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

This document and supporting material contain confidential and proprietary business information of Wavin - IT - SM Maddalena. These materials may be printed or (photo) copied or otherwise used only with the written consent of Wavin - IT - SM Maddalena.

Results

Environmental impact	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
GWP-total	kg CO2 eq	8.86E-2	6.24E-3	4.35E-3	9.92E-2	9.52E-4	7.43E-2	5.09E-4	-4.79E-2	1.27E-1
GWP-f	kg CO2 eq	1.03E-1	6.24E-3	3.72E-3	1.13E-1	9.51E-4	5.60E-2	5.09E-4	-5.60E-2	1.15E-1
GWP-b	kg CO2 eq	-1.49E-2	3.79E-6	3.15E-4	-1.46E-2	5.78E-7	1.83E-2	4.61E-7	8.08E-3	1.17E-2
GWP-luluc	kg CO2 eq	9.65E-5	2.21E-6	3.14E-4	4.13E-4	3.37E-7	4.96E-6	9.19E-9	-7.22E-5	3.46E-4
ODP	kg CFC11 eq	1.04E-8	1.44E-9	3.74E-10	1.22E-8	2.19E-10	7.90E-10	1.31E-11	-3.70E-9	9.55E-9
AP	mol H+ eq	4.66E-4	3.55E-5	1.50E-5	5.17E-4	5.42E-6	3.41E-5	3.17E-7	-1.68E-4	3.88E-4
EP-fw	kg P eq	2.65E-6	5.13E-8	5.79E-8	2.76E-6	7.83E-9	1.48E-7	4.19E-10	-1.26E-6	1.66E-6
EP-m	kg N eq	8.37E-5	1.27E-5	2.54E-6	9.89E-5	1.94E-6	1.07E-5	3.20E-7	-3.42E-5	7.77E-5
EP-T	mol N eq	9.29E-4	1.40E-4	2.85E-5	1.10E-3	2.14E-5	1.17E-4	1.28E-6	-3.86E-4	8.52E-4
POCP	kg NMVOC eq	3.85E-4	4.01E-5	8.86E-6	4.34E-4	6.11E-6	3.54E-5	4.74E-7	-1.48E-4	3.28E-4
ADP-mm	kg Sb eq	1.39E-5	1.61E-7	9.07E-8	1.42E-5	2.46E-8	1.22E-7	3.18E-10	-7.55E-7	1.36E-5
ADP-f	MJ	3.20E+0	9.58E-2	4.90E-2	3.35E+0	1.46E-2	9.22E-2	9.59E-4	-1.49E+0	1.96E+0
WDP	m3 depriv.	6.68E-2	2.94E-4	1.73E-2	8.45E-2	4.48E-5	1.99E-3	5.36E-6	-3.34E-2	5.31E-2
PM	disease inc.	5.17E-9	5.63E-10	1.50E-10	5.88E-9	8.59E-11	5.00E-10	6.58E-12	-1.99E-9	4.49E-9
IR	kBq U-235 eq	4.48E-3	4.19E-4	4.57E-5	4.94E-3	6.38E-5	2.89E-4	4.49E-6	-1.30E-3	4.00E-3
ETP-fw	CTUe	2.14E+0	7.78E-2	7.73E-2	2.30E+0	1.19E-2	1.58E-1	1.15E-3	-8.54E-1	1.62E+0
HTP-c	CTUh	4.27E-11	2.77E-12	4.12E-12	4.96E-11	4.22E-13	1.27E-11	2.45E-14	-1.75E-11	4.53E-11
HTP-nc	CTUh	9.95E-10	9.27E-11	8.55E-11	1.17E-9	1.41E-11	1.70E-10	6.05E-13	-4.02E-10	9.56E-10
SQP	Pt	1.83E+0	8.19E-2	8.93E-3	1.93E+0	1.25E-2	7.00E-2	2.45E-3	-2.54E+0	-5.33E-1
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	3.15E-1	1.37E-3	1.70E-1	4.86E-1	2.10E-4	4.38E-3	3.88E-5	-4.37E-1	5.32E-2
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	3.15E-1	1.37E-3	1.70E-1	4.86E-1	2.10E-4	4.38E-3	3.88E-5	-4.37E-1	5.32E-2
PENRE	MJ	3.43E+0	1.02E-1	5.35E-2	3.58E+0	1.55E-2	9.82E-2	1.02E-3	-1.62E+0	2.08E+0
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	3.43E+0	1.02E-1	5.35E-2	3.58E+0	1.55E-2	9.82E-2	1.02E-3	-1.62E+0	2.08E+0
PET	MJ	3.74E+0	1.03E-1	2.23E-1	4.07E+0	1.57E-2	1.03E-1	1.06E-3	-2.05E+0	2.14E+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	1.31E-3	1.08E-5	4.12E-4	1.74E-3	1.65E-6	9.04E-5	1.18E-6	-6.53E-4	1.18E-3

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	1.09E-6	2.45E-7	4.76E-8	1.38E-6	3.74E-8	1.78E-7	1.16E-9	-7.09E-7	8.92E-7
NHWD	kg	7.85E-3	5.93E-3	4.64E-4	1.42E-2	9.05E-4	5.01E-3	4.20E-3	-2.26E-3	2.21E-2
RWD	kg	5.37E-6	6.51E-7	5.08E-8	6.07E-6	9.93E-8	3.72E-7	6.27E-9	-1.29E-6	5.25E-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



Ecochain Technologies BV
H.J.E. Wenckebachweg 123, 1096 AM Amsterdam, The Netherlands
<https://www.ecochain.com>
+31 20 3035 777