

Environmental Profile

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

Ecochain v3.5.64



Product: 3011044 - Ed Tech PP Reducer 40x32
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	3.70E-2	2.67E-3	2.70E-3	4.24E-2	5.41E-4	3.90E-2	2.70E-4	-2.68E-2	5.54E-2
GWP-f	kg CO2 eq	5.17E-2	2.66E-3	2.31E-3	5.66E-2	5.41E-4	2.29E-2	2.70E-4	-2.99E-2	5.05E-2
GWP-b	kg CO2 eq	-1.47E-2	1.62E-6	1.95E-4	-1.45E-2	3.28E-7	1.61E-2	2.38E-7	3.12E-3	4.77E-3
GWP-luluc	kg CO2 eq	4.33E-5	9.43E-7	1.95E-4	2.39E-4	1.91E-7	3.00E-6	4.90E-9	-3.40E-5	2.09E-4
ODP	kg CFC11 eq	3.48E-9	6.14E-10	2.32E-10	4.33E-9	1.25E-10	4.46E-10	6.86E-12	-1.68E-9	3.22E-9
AP	mol H+ eq	2.21E-4	1.52E-5	9.32E-6	2.45E-4	3.08E-6	1.88E-5	1.66E-7	-9.66E-5	1.71E-4
EP-fw	kg P eq	1.17E-6	2.19E-8	3.59E-8	1.23E-6	4.45E-9	8.82E-8	2.22E-10	-6.37E-7	6.88E-7
EP-m	kg N eq	3.99E-5	5.43E-6	1.57E-6	4.69E-5	1.10E-6	5.74E-6	1.34E-7	-1.94E-5	3.45E-5
EP-T	mol N eq	4.47E-4	5.98E-5	1.77E-5	5.25E-4	1.21E-5	6.32E-5	6.68E-7	-2.19E-4	3.82E-4
POCP	kg NMVOC eq	1.84E-4	1.71E-5	5.50E-6	2.07E-4	3.47E-6	1.94E-5	2.49E-7	-8.73E-5	1.43E-4
ADP-mm	kg Sb eq	4.01E-6	6.89E-8	5.63E-8	4.14E-6	1.40E-8	7.10E-8	1.68E-10	-3.14E-7	3.91E-6
ADP-f	MJ	1.64E+0	4.09E-2	3.04E-2	1.71E+0	8.30E-3	5.45E-2	5.02E-4	-8.50E-1	9.21E-1
WDP	m3 depriv.	3.40E-2	1.25E-4	1.08E-2	4.49E-2	2.55E-5	1.09E-3	3.26E-6	-1.81E-2	2.79E-2
PM	disease inc.	2.37E-9	2.40E-10	9.34E-11	2.70E-9	4.88E-11	2.92E-10	3.45E-12	-1.13E-9	1.91E-9
IR	kBq U-235 eq	1.69E-3	1.79E-4	2.84E-5	1.89E-3	3.63E-5	1.70E-4	2.33E-6	-6.71E-4	1.43E-3
ETP-fw	CTUe	8.74E-1	3.32E-2	4.80E-2	9.55E-1	6.74E-3	7.55E-2	5.08E-4	-3.98E-1	6.39E-1
HTP-c	CTUh	2.22E-11	1.18E-12	2.56E-12	2.60E-11	2.40E-13	7.87E-12	1.30E-14	-1.13E-11	2.28E-11
HTP-nc	CTUh	4.70E-10	3.96E-11	5.31E-11	5.63E-10	8.03E-12	9.59E-11	2.95E-13	-2.23E-10	4.45E-10
SQP	Pt	1.46E+0	3.50E-2	5.54E-3	1.50E+0	7.10E-3	4.23E-2	1.28E-3	-1.63E+0	-7.74E-2
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	2.34E-1	5.87E-4	1.05E-1	3.40E-1	1.19E-4	2.61E-3	1.95E-5	-2.68E-1	7.43E-2
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	2.34E-1	5.87E-4	1.05E-1	3.40E-1	1.19E-4	2.61E-3	1.95E-5	-2.68E-1	7.43E-2
PENRE	MJ	1.75E+0	4.34E-2	3.32E-2	1.83E+0	8.81E-3	5.80E-2	5.33E-4	-9.16E-1	9.82E-1
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	1.75E+0	4.34E-2	3.32E-2	1.83E+0	8.81E-3	5.80E-2	5.33E-4	-9.16E-1	9.82E-1
PET	MJ	1.99E+0	4.40E-2	1.38E-1	2.17E+0	8.93E-3	6.06E-2	5.53E-4	-1.18E+0	1.06E+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	6.14E-4	4.63E-6	2.56E-4	8.74E-4	9.39E-7	4.04E-5	6.17E-7	-3.33E-4	5.82E-4

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	4.91E-7	1.05E-7	2.96E-8	6.25E-7	2.12E-8	9.77E-8	6.11E-10	-3.50E-7	3.94E-7
NHWD	kg	3.76E-3	2.53E-3	2.88E-4	6.58E-3	5.14E-4	2.80E-3	2.20E-3	-1.42E-3	1.07E-2
RWD	kg	1.87E-6	2.78E-7	3.16E-8	2.18E-6	5.64E-8	2.18E-7	3.27E-9	-6.58E-7	1.80E-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