Environmental Profile

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

Ecochain v3.5.64

Product:	3075740 - Ed Tech Eccentric 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

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	5.39E-2	4.02E-3	3.00E-3	6.09E-2	6.34E-4	5.12E-2	3.29E-4	-3.03E-2	8.28E-2
GWP-f	kg CO2 eq	6.85E-2	4.01E-3	2.57E-3	7.51E-2	6.34E-4	3.29E-2	3.29E-4	-3.84E-2	7.07E-2
GWP-b	kg CO2 eq	-1.47E-2	2.44E-6	2.17E-4	-1.45E-2	3.85E-7	1.83E-2	2.94E-7	8.11E-3	1.19E-2
GWP-luluc	kg CO2 eq	7.87E-5	1.42E-6	2.17E-4	2.97E-4	2.24E-7	3.49E-6	5.98E-9	-6.95E-5	2.31E-4
ODP	kg CFC11 eq	6.13E-9	9.25E-10	2.58E-10	7.32E-9	1.46E-10	5.75E-10	8.42E-12	-2.52E-9	5.52E-9
AP	mol H+ eq	3.07E-4	2.29E-5	1.04E-5	3.40E-4	3.61E-6	2.41E-5	2.04E-7	-1.30E-4	2.38E-4
EP-fw	kg P eq	1.82E-6	3.30E-8	3.99E-8	1.89E-6	5.21E-9	1.04E-7	2.71E-10	-1.11E-6	8.96E-7
EP-m	kg N eq	5.81E-5	8.18E-6	1.75E-6	6.81E-5	1.29E-6	7.59E-6	1.88E-7	-2.69E-5	5.02E-5
EP-T	mol N eq	6.39E-4	9.02E-5	1.97E-5	7.49E-4	1.42E-5	8.34E-5	8.21E-7	-3.05E-4	5.42E-4
POCP	kg NMVOC eq	2.52E-4	2.58E-5	6.11E-6	2.84E-4	4.07E-6	2.53E-5	3.06E-7	-1.13E-4	2.01E-4
ADP-mm	kg Sb eq	7.31E-6	1.04E-7	6.25E-8	7.48E-6	1.64E-8	8.96E-8	2.05E-10	-4.70E-7	7.11E-6
ADP-f	MJ	2.08E+0	6.16E-2	3.38E-2	2.18E+0	9.73E-3	6.58E-2	6.17E-4	-1.03E+0	1.22E+0
WDP	m3 depriv.	4.37E-2	1.89E-4	1.20E-2	5.58E-2	2.99E-5	1.33E-3	3.79E-6	-2.68E-2	3.04E-2
PM	disease inc.	3.45E-9	3.62E-10	1.04E-10	3.92E-9	5.72E-11	3.63E-10	4.23E-12	-1.68E-9	2.66E-9
IR	kBq U-235 eq	2.70E-3	2.69E-4	3.15E-5	3.00E-3	4.25E-5	2.10E-4	2.87E-6	-1.05E-3	2.20E-3
ETP-fw	CTUe	1.69E+0	5.00E-2	5.33E-2	1.80E+0	7.90E-3	1.04E-1	6.92E-4	-7.94E-1	1.11E+0
HTP-c	CTUh	2.99E-11	1.78E-12	2.84E-12	3.46E-11	2.81E-13	9.38E-12	1.59E-14	-1.50E-11	2.93E-11
HTP-nc	CTUh	6.70E-10	5.97E-11	5.90E-11	7.89E-10	9.42E-12	1.19E-10	3.78E-13	-3.39E-10	5.79E-10
SQP	Pt	1.71E+0	5.27E-2	6.16E-3	1.77E+0	8.32E-3	4.98E-2	1.58E-3	-2.53E+0	-6.95E-1
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	2.87E-1	8.84E-4	1.17E-1	4.05E-1	1.40E-4	3.08E-3	2.45E-5	-4.32E-1	-2.39E-2
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	2.87E-1	8.84E-4	1.17E-1	4.05E-1	1.40E-4	3.08E-3	2.45E-5	-4.32E-1	-2.39E-2
PENRE	MJ	2.23E+0	6.54E-2	3.69E-2	2.33E+0	1.03E-2	7.01E-2	6.54E-4	-1.11E+0	1.30E+0
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	2.23E+0	6.54E-2	3.69E-2	2.33E+0	1.03E-2	7.01E-2	6.54E-4	-1.11E+0	1.30E+0
PET	MJ	2.52E+0	6.63E-2	1.54E-1	2.74E+0	1.05E-2	7.32E-2	6.79E-4	-1.54E+0	1.28E+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	8.53E-4	6.97E-6	2.84E-4	1.14E-3	1.10E-6	5.58E-5	7.58E-7	-5.47E-4	6.54E-4

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	7.39E-7	1.58E-7	3.28E-8	9.29E-7	2.49E-8	1.26E-7	7.48E-10	-4.96E-7	5.84E-7
NHWD	kg	5.56E-3	3.82E-3	3.20E-4	9.70E-3	6.03E-4	3.45E-3	2.70E-3	-1.91E-3	1.45E-2
RWD	kg	3.13E-6	4.19E-7	3.51E-8	3.59E-6	6.62E-8	2.72E-7	4.02E-9	-1.04E-6	2.89E-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