

Environmental Profile

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

Ecochain v3.5.64



Product: 3018749 - Ed Tech PP Bend HTBR 87,5° 50x40
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

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	9.41E-2	6.61E-3	6.00E-3	1.07E-1	1.16E-3	6.65E-2	5.77E-4	-5.48E-2	1.20E-1
GWP-f	kg CO2 eq	1.09E-1	6.60E-3	5.14E-3	1.20E-1	1.16E-3	4.82E-2	5.77E-4	-6.28E-2	1.08E-1
GWP-b	kg CO2 eq	-1.45E-2	4.01E-6	4.34E-4	-1.41E-2	7.04E-7	1.83E-2	5.11E-7	8.02E-3	1.22E-2
GWP-luluc	kg CO2 eq	8.87E-5	2.34E-6	4.34E-4	5.25E-4	4.11E-7	6.45E-6	1.01E-8	-7.42E-5	4.57E-4
ODP	kg CFC11 eq	6.79E-9	1.52E-9	5.15E-10	8.83E-9	2.67E-10	9.59E-10	1.46E-11	-3.42E-9	6.65E-9
AP	mol H+ eq	4.48E-4	3.76E-5	2.07E-5	5.06E-4	6.61E-6	4.03E-5	3.52E-7	-1.99E-4	3.54E-4
EP-fw	kg P eq	2.39E-6	5.44E-8	7.98E-8	2.53E-6	9.55E-9	1.90E-7	4.63E-10	-1.38E-6	1.35E-6
EP-m	kg N eq	8.15E-5	1.35E-5	3.50E-6	9.85E-5	2.36E-6	1.23E-5	2.85E-7	-3.90E-5	7.44E-5
EP-T	mol N eq	9.02E-4	1.48E-4	3.93E-5	1.09E-3	2.61E-5	1.35E-4	1.42E-6	-4.39E-4	8.13E-4
POCP	kg NMVOC eq	3.75E-4	4.24E-5	1.22E-5	4.30E-4	7.45E-6	4.17E-5	5.32E-7	-1.74E-4	3.05E-4
ADP-mm	kg Sb eq	7.84E-6	1.71E-7	1.25E-7	8.13E-6	3.00E-8	1.54E-7	3.54E-10	-6.31E-7	7.69E-6
ADP-f	MJ	3.52E+0	1.01E-1	6.76E-2	3.69E+0	1.78E-2	1.17E-1	1.07E-3	-1.80E+0	2.02E+0
WDP	m3 depriv.	7.18E-2	3.11E-4	2.39E-2	9.60E-2	5.47E-5	2.34E-3	5.86E-6	-4.02E-2	5.83E-2
PM	disease inc.	4.68E-9	5.96E-10	2.07E-10	5.48E-9	1.05E-10	6.29E-10	7.35E-12	-2.26E-9	3.97E-9
IR	kBq U-235 eq	3.42E-3	4.43E-4	6.31E-5	3.92E-3	7.78E-5	3.64E-4	4.98E-6	-1.41E-3	2.96E-3
ETP-fw	CTUe	1.89E+0	8.23E-2	1.07E-1	2.08E+0	1.45E-2	1.62E-1	1.07E-3	-8.89E-1	1.37E+0
HTP-c	CTUh	3.88E-11	2.93E-12	5.69E-12	4.74E-11	5.15E-13	1.62E-11	2.68E-14	-1.90E-11	4.52E-11
HTP-nc	CTUh	9.19E-10	9.81E-11	1.18E-10	1.13E-9	1.72E-11	2.04E-10	6.22E-13	-4.54E-10	9.03E-10
SQP	Pt	1.76E+0	8.67E-2	1.23E-2	1.86E+0	1.52E-2	9.08E-2	2.74E-3	-2.55E+0	-5.78E-1
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	3.07E-1	1.45E-3	2.34E-1	5.42E-1	2.55E-4	5.61E-3	4.22E-5	-4.41E-1	1.07E-1
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	3.07E-1	1.45E-3	2.34E-1	5.42E-1	2.55E-4	5.61E-3	4.22E-5	-4.41E-1	1.07E-1
PENRE	MJ	3.78E+0	1.08E-1	7.37E-2	3.96E+0	1.89E-2	1.25E-1	1.14E-3	-1.94E+0	2.16E+0
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	3.78E+0	1.08E-1	7.37E-2	3.96E+0	1.89E-2	1.25E-1	1.14E-3	-1.94E+0	2.16E+0
PET	MJ	4.08E+0	1.09E-1	3.08E-1	4.50E+0	1.92E-2	1.30E-1	1.18E-3	-2.38E+0	2.27E+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	1.27E-3	1.15E-5	5.68E-4	1.85E-3	2.02E-6	8.54E-5	1.32E-6	-7.47E-4	1.19E-3

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	9.03E-7	2.59E-7	6.57E-8	1.23E-6	4.55E-8	2.09E-7	1.29E-9	-6.74E-7	8.10E-7
NHWD	kg	7.06E-3	6.28E-3	6.40E-4	1.40E-2	1.10E-3	5.97E-3	4.71E-3	-2.51E-3	2.33E-2
RWD	kg	3.75E-6	6.90E-7	7.01E-8	4.51E-6	1.21E-7	4.68E-7	6.99E-9	-1.36E-6	3.75E-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