

Environmental Profile

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

Ecochain v3.5.80



Product: 3044803 - EK PPR Pipe GY 16x2,7 PN20 L=4
Unit: 1 piece
Manufacturer: Wavin - CZ - Horni Pocernice
Location: Czechia
Address: Do Čertous 2659
193 00 Horní Počernice
Czech Republic

LCA standard: EN15804+A2 (2019)
Standard database: Worldwide - Ecoinvent v 3.6 Cut-Off
Externally verified: Yes
Issue date: 04-10-2022
End of validity: 04-10-2027
Verifier: Martijn van Hövell - SGS Search



Use the Ekoplastik System when you prefer an all-plastic welded system or when you need pipes with larger diameters. The Ekoplastik system offers a maximum pipe diameter of 250 mm. Join pipes and fittings using a homogenous weld for secure and permanent connections.

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 - CZ - Horni Pocernice (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 EN15804+A2 Climate Change [kg CO2 eq]; **GWP-f** = EF Climate change - Fossil [kg CO2 eq]; **GWP-b** = EF EN15804+A2 Climate Change - Biogenic [kg CO2 eq]; **GWP-luluc** = EF EN15804+A2 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 - CZ - Horni Pocernice . These materials may be printed or (photo) copied or otherwise used only with the written consent of Wavin - CZ - Horni Pocernice .

Results

Environmental impact	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
GWP-total	kg CO2 eq	8.93E-1	9.83E-2	1.42E-2	1.01E+0	1.14E-2	3.47E-1	5.37E-3	-5.39E-1	8.30E-1
GWP-f	kg CO2 eq	8.89E-1	9.82E-2	1.15E-2	9.99E-1	1.14E-2	3.47E-1	5.37E-3	-5.37E-1	8.26E-1
GWP-b	kg CO2 eq	3.51E-3	5.97E-5	2.42E-3	5.99E-3	6.92E-6	-4.57E-4	4.67E-6	-1.86E-3	3.69E-3
GWP-luluc	kg CO2 eq	2.47E-4	3.48E-5	2.32E-4	5.13E-4	4.03E-6	6.41E-5	9.26E-8	-1.03E-4	4.79E-4
ODP	kg CFC11 eq	1.69E-8	2.26E-8	1.45E-8	5.40E-8	2.63E-9	8.35E-9	1.35E-10	-2.04E-8	4.47E-8
AP	mol H+ eq	3.23E-3	5.60E-4	1.27E-4	3.92E-3	6.49E-5	3.52E-4	3.22E-6	-1.49E-3	2.84E-3
EP-fw	kg P eq	1.35E-5	8.08E-7	5.77E-7	1.49E-5	9.38E-8	1.85E-6	4.23E-9	-5.84E-6	1.10E-5
EP-m	kg N eq	5.32E-4	2.00E-4	2.46E-5	7.57E-4	2.32E-5	1.03E-4	2.08E-6	-2.65E-4	6.21E-4
EP-T	mol N eq	6.09E-3	2.21E-3	2.88E-4	8.58E-3	2.56E-4	1.13E-3	1.31E-5	-2.93E-3	7.05E-3
POCP	kg NMVOC eq	2.76E-3	6.31E-4	6.36E-5	3.45E-3	7.32E-5	3.57E-4	4.90E-6	-1.35E-3	2.54E-3
ADP-mm	kg Sb eq	1.54E-5	2.54E-6	1.12E-6	1.90E-5	2.95E-7	1.39E-6	3.26E-9	-3.51E-6	1.72E-5
ADP-f	MJ	3.13E+1	1.51E+0	3.71E+0	3.65E+1	1.75E-1	1.11E+0	9.85E-3	-1.68E+1	2.10E+1
WDP	m3 depriv.	6.26E-1	4.63E-3	5.90E-2	6.90E-1	5.37E-4	2.18E-2	5.37E-5	-2.90E-1	4.23E-1
PM	disease inc.	2.82E-8	8.87E-9	9.36E-10	3.80E-8	1.03E-9	5.79E-9	6.77E-11	-1.25E-8	3.24E-8
IR	kBq U-235 eq	1.64E-2	6.59E-3	4.39E-2	6.69E-2	7.65E-4	3.35E-3	4.56E-5	-7.79E-3	6.32E-2
ETP-fw	CTUe	5.07E+0	1.22E+0	1.27E+0	7.57E+0	1.42E-1	1.26E+0	8.24E-3	-2.07E+0	6.90E+0
HTP-c	CTUh	2.20E-10	4.36E-11	2.41E-11	2.87E-10	5.06E-12	1.55E-10	2.44E-13	-8.87E-11	3.59E-10
HTP-nc	CTUh	5.96E-9	1.46E-9	8.24E-10	8.24E-9	1.69E-10	1.89E-9	5.32E-12	-2.51E-9	7.80E-9
SQP	Pt	1.28E+0	1.29E+0	1.01E+0	3.59E+0	1.50E-1	8.89E-1	2.52E-2	-4.52E-1	4.20E+0
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	4.66E-1	2.16E-2	5.30E-1	1.02E+0	2.51E-3	5.49E-2	3.79E-4	-2.08E-1	8.67E-1
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	4.66E-1	2.16E-2	5.30E-1	1.02E+0	2.51E-3	5.49E-2	3.79E-4	-2.08E-1	8.67E-1
PENRE	MJ	3.36E+1	1.60E+0	3.72E+0	3.89E+1	1.86E-1	1.19E+0	1.04E-2	-1.81E+1	2.21E+1
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	3.36E+1	1.60E+0	3.72E+0	3.89E+1	1.86E-1	1.19E+0	1.04E-2	-1.81E+1	2.21E+1
PET	MJ	3.40E+1	1.62E+0	4.25E+0	3.99E+1	1.88E-1	1.24E+0	1.08E-2	-1.84E+1	2.30E+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	9.57E-3	1.71E-4	1.95E-3	1.17E-2	1.98E-5	6.44E-4	1.21E-5	-4.34E-3	8.03E-3

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	4.29E-6	3.86E-6	3.05E-8	8.18E-6	4.47E-7	1.81E-6	1.19E-8	-4.01E-6	6.44E-6
NHWD	kg	3.92E-2	9.35E-2	1.72E-4	1.33E-1	1.08E-2	5.53E-2	4.33E-2	-1.29E-2	2.29E-1
RWD	kg	1.42E-5	1.03E-5	4.12E-8	2.45E-5	1.19E-6	4.25E-6	6.42E-8	-7.03E-6	2.29E-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



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