

Environmental Profile

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

Ecochain v3.5.80



Product: 3044812 - EK PPR Pipe GY 16x2,2 PN16 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	8.31E-1	9.19E-2	1.23E-2	9.35E-1	1.07E-2	3.21E-1	5.02E-3	-5.02E-1	7.70E-1
GWP-f	kg CO2 eq	8.27E-1	9.18E-2	9.96E-3	9.29E-1	1.07E-2	3.22E-1	5.02E-3	-5.00E-1	7.66E-1
GWP-b	kg CO2 eq	3.36E-3	5.57E-5	2.09E-3	5.51E-3	6.47E-6	-4.27E-4	4.37E-6	-1.74E-3	3.36E-3
GWP-luluc	kg CO2 eq	2.28E-4	3.25E-5	2.00E-4	4.61E-4	3.77E-6	5.99E-5	8.67E-8	-9.60E-5	4.29E-4
ODP	kg CFC11 eq	1.58E-8	2.12E-8	1.25E-8	4.94E-8	2.46E-9	7.81E-9	1.26E-10	-1.89E-8	4.09E-8
AP	mol H+ eq	3.00E-3	5.23E-4	1.10E-4	3.64E-3	6.07E-5	3.29E-4	3.01E-6	-1.39E-3	2.63E-3
EP-fw	kg P eq	1.25E-5	7.55E-7	4.99E-7	1.38E-5	8.77E-8	1.73E-6	3.96E-9	-5.46E-6	1.01E-5
EP-m	kg N eq	4.95E-4	1.87E-4	2.12E-5	7.03E-4	2.17E-5	9.57E-5	1.95E-6	-2.47E-4	5.76E-4
EP-T	mol N eq	5.65E-3	2.06E-3	2.49E-4	7.96E-3	2.39E-4	1.05E-3	1.22E-5	-2.73E-3	6.54E-3
POCP	kg NMVOC eq	2.56E-3	5.89E-4	5.49E-5	3.21E-3	6.85E-5	3.33E-4	4.59E-6	-1.26E-3	2.35E-3
ADP-mm	kg Sb eq	1.41E-5	2.37E-6	9.64E-7	1.74E-5	2.76E-7	1.30E-6	3.05E-9	-3.28E-6	1.57E-5
ADP-f	MJ	2.91E+1	1.41E+0	3.20E+0	3.37E+1	1.64E-1	1.04E+0	9.21E-3	-1.57E+1	1.92E+1
WDP	m3 depriv.	5.83E-1	4.32E-3	5.10E-2	6.38E-1	5.02E-4	2.04E-2	5.08E-5	-2.71E-1	3.89E-1
PM	disease inc.	2.62E-8	8.29E-9	8.08E-10	3.53E-8	9.62E-10	5.41E-9	6.33E-11	-1.16E-8	3.01E-8
IR	kBq U-235 eq	1.52E-2	6.16E-3	3.79E-2	5.93E-2	7.15E-4	3.14E-3	4.26E-5	-7.28E-3	5.59E-2
ETP-fw	CTUe	4.71E+0	1.14E+0	1.10E+0	6.95E+0	1.33E-1	1.18E+0	7.71E-3	-1.94E+0	6.33E+0
HTP-c	CTUh	2.03E-10	4.07E-11	2.08E-11	2.65E-10	4.73E-12	1.45E-10	2.28E-13	-8.28E-11	3.32E-10
HTP-nc	CTUh	5.53E-9	1.36E-9	7.11E-10	7.61E-9	1.58E-10	1.76E-9	4.98E-12	-2.34E-9	7.20E-9
SQP	Pt	1.17E+0	1.21E+0	8.75E-1	3.25E+0	1.40E-1	8.31E-1	2.36E-2	-4.21E-1	3.82E+0
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	4.32E-1	2.02E-2	4.57E-1	9.10E-1	2.35E-3	5.13E-2	3.54E-4	-1.94E-1	7.69E-1
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	4.32E-1	2.02E-2	4.57E-1	9.10E-1	2.35E-3	5.13E-2	3.54E-4	-1.94E-1	7.69E-1
PENRE	MJ	3.13E+1	1.50E+0	3.21E+0	3.60E+1	1.74E-1	1.11E+0	9.77E-3	-1.69E+1	2.03E+1
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	3.13E+1	1.50E+0	3.21E+0	3.60E+1	1.74E-1	1.11E+0	9.77E-3	-1.69E+1	2.03E+1
PET	MJ	3.17E+1	1.52E+0	3.67E+0	3.69E+1	1.76E-1	1.16E+0	1.01E-2	-1.71E+1	2.11E+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	8.90E-3	1.59E-4	1.69E-3	1.07E-2	1.85E-5	6.01E-4	1.13E-5	-4.05E-3	7.32E-3

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	3.95E-6	3.60E-6	2.63E-8	7.58E-6	4.18E-7	1.70E-6	1.11E-8	-3.71E-6	5.99E-6
NHWD	kg	3.59E-2	8.73E-2	1.49E-4	1.23E-1	1.01E-2	5.16E-2	4.05E-2	-1.20E-2	2.14E-1
RWD	kg	1.32E-5	9.58E-6	3.56E-8	2.28E-5	1.11E-6	3.97E-6	6.01E-8	-6.56E-6	2.14E-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