

Environmental Profile

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

Ecochain v3.5.80



Product: 3044819 - EK PPR Pipe GY 90x12,5 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

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Results

Environmental impact	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
GWP-total	kg CO2 eq	2.33E+1	2.56E+0	3.70E-1	2.62E+1	2.97E-1	9.08E+0	1.40E-1	-1.41E+1	2.17E+1
GWP-f	kg CO2 eq	2.32E+1	2.56E+0	3.01E-1	2.61E+1	2.97E-1	9.09E+0	1.40E-1	-1.40E+1	2.16E+1
GWP-b	kg CO2 eq	8.96E-2	1.55E-3	6.32E-2	1.54E-1	1.80E-4	-1.19E-2	1.22E-4	-4.84E-2	9.44E-2
GWP-luluc	kg CO2 eq	6.46E-3	9.05E-4	6.05E-3	1.34E-2	1.05E-4	1.67E-3	2.41E-6	-2.68E-3	1.25E-2
ODP	kg CFC11 eq	4.41E-7	5.90E-7	3.77E-7	1.41E-6	6.84E-8	2.18E-7	3.51E-9	-5.36E-7	1.16E-6
AP	mol H+ eq	8.43E-2	1.46E-2	3.32E-3	1.02E-1	1.69E-3	9.17E-3	8.38E-5	-3.89E-2	7.42E-2
EP-fw	kg P eq	3.54E-4	2.11E-5	1.51E-5	3.90E-4	2.44E-6	4.82E-5	1.10E-7	-1.52E-4	2.88E-4
EP-m	kg N eq	1.39E-2	5.21E-3	6.41E-4	1.98E-2	6.05E-4	2.67E-3	5.43E-5	-6.90E-3	1.62E-2
EP-T	mol N eq	1.59E-1	5.75E-2	7.52E-3	2.24E-1	6.66E-3	2.94E-2	3.40E-4	-7.63E-2	1.84E-1
POCP	kg NMVOC eq	7.20E-2	1.64E-2	1.66E-3	9.01E-2	1.90E-3	9.30E-3	1.28E-4	-3.52E-2	6.63E-2
ADP-mm	kg Sb eq	3.98E-4	6.62E-5	2.91E-5	4.94E-4	7.68E-6	3.62E-5	8.47E-8	-9.14E-5	4.46E-4
ADP-f	MJ	8.17E+2	3.93E+1	9.68E+1	9.53E+2	4.55E+0	2.90E+1	2.56E-1	-4.39E+2	5.48E+2
WDP	m3 depriv.	1.64E+1	1.21E-1	1.54E+0	1.80E+1	1.40E-2	5.68E-1	1.39E-3	-7.54E+0	1.11E+1
PM	disease inc.	7.35E-7	2.31E-7	2.44E-8	9.91E-7	2.68E-8	1.51E-7	1.76E-9	-3.24E-7	8.46E-7
IR	kBq U-235 eq	4.28E-1	1.72E-1	1.15E+0	1.74E+0	1.99E-2	8.74E-2	1.19E-3	-2.03E-1	1.65E+0
ETP-fw	CTUe	1.33E+2	3.19E+1	3.31E+1	1.98E+2	3.70E+0	3.28E+1	2.14E-1	-5.40E+1	1.80E+2
HTP-c	CTUh	5.73E-9	1.13E-9	6.29E-10	7.49E-9	1.32E-10	4.05E-9	6.33E-12	-2.31E-9	9.37E-9
HTP-nc	CTUh	1.55E-7	3.80E-8	2.15E-8	2.15E-7	4.41E-9	4.92E-8	1.38E-10	-6.53E-8	2.03E-7
SQP	Pt	3.37E+1	3.36E+1	2.64E+1	9.37E+1	3.90E+0	2.32E+1	6.57E-1	-1.18E+1	1.10E+2
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	1.22E+1	5.63E-1	1.38E+1	2.66E+1	6.53E-2	1.43E+0	9.87E-3	-5.41E+0	2.27E+1
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	1.22E+1	5.63E-1	1.38E+1	2.66E+1	6.53E-2	1.43E+0	9.87E-3	-5.41E+0	2.27E+1
PENRE	MJ	8.76E+2	4.17E+1	9.70E+1	1.02E+3	4.83E+0	3.09E+1	2.72E-1	-4.73E+2	5.78E+2
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	8.76E+2	4.17E+1	9.70E+1	1.02E+3	4.83E+0	3.09E+1	2.72E-1	-4.73E+2	5.78E+2
PET	MJ	8.89E+2	4.23E+1	1.11E+2	1.04E+3	4.90E+0	3.23E+1	2.82E-1	-4.79E+2	6.01E+2
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	2.50E-1	4.44E-3	5.09E-2	3.06E-1	5.15E-4	1.68E-2	3.16E-4	-1.13E-1	2.10E-1

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	1.12E-4	1.00E-4	7.95E-7	2.13E-4	1.16E-5	4.73E-5	3.10E-7	-1.05E-4	1.67E-4
NHWD	kg	1.02E+0	2.43E+0	4.49E-3	3.46E+0	2.82E-1	1.44E+0	1.13E+0	-3.36E-1	5.98E+0
RWD	kg	3.70E-4	2.67E-4	1.08E-6	6.38E-4	3.10E-5	1.11E-4	1.67E-6	-1.83E-4	5.98E-4
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