

Environmental Profile

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

Ecochain v3.5.80



Product: 3044809 - EK PPR Pipe GY 110x10,0 PN10 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	2.50E+1	2.75E+0	3.88E-1	2.82E+1	3.19E-1	9.73E+0	1.50E-1	-1.51E+1	2.32E+1
GWP-f	kg CO2 eq	2.49E+1	2.75E+0	3.16E-1	2.80E+1	3.19E-1	9.74E+0	1.50E-1	-1.51E+1	2.31E+1
GWP-b	kg CO2 eq	9.74E-2	1.67E-3	6.63E-2	1.65E-1	1.94E-4	-1.28E-2	1.31E-4	-5.20E-2	1.01E-1
GWP-luluc	kg CO2 eq	6.91E-3	9.74E-4	6.34E-3	1.42E-2	1.13E-4	1.79E-3	2.59E-6	-2.88E-3	1.33E-2
ODP	kg CFC11 eq	4.72E-7	6.34E-7	3.96E-7	1.50E-6	7.35E-8	2.34E-7	3.77E-9	-5.74E-7	1.24E-6
AP	mol H+ eq	9.04E-2	1.57E-2	3.48E-3	1.10E-1	1.82E-3	9.86E-3	9.01E-5	-4.18E-2	7.95E-2
EP-fw	kg P eq	3.79E-4	2.26E-5	1.58E-5	4.17E-4	2.63E-6	5.18E-5	1.18E-7	-1.64E-4	3.08E-4
EP-m	kg N eq	1.49E-2	5.61E-3	6.73E-4	2.12E-2	6.50E-4	2.87E-3	5.84E-5	-7.41E-3	1.74E-2
EP-T	mol N eq	1.70E-1	6.18E-2	7.89E-3	2.40E-1	7.17E-3	3.16E-2	3.66E-4	-8.20E-2	1.97E-1
POCP	kg NMVOC eq	7.73E-2	1.77E-2	1.74E-3	9.67E-2	2.05E-3	9.99E-3	1.37E-4	-3.78E-2	7.11E-2
ADP-mm	kg Sb eq	4.24E-4	7.12E-5	3.06E-5	5.26E-4	8.25E-6	3.89E-5	9.11E-8	-9.82E-5	4.75E-4
ADP-f	MJ	8.77E+2	4.22E+1	1.02E+2	1.02E+3	4.90E+0	3.12E+1	2.76E-1	-4.72E+2	5.85E+2
WDP	m3 depriv.	1.76E+1	1.30E-1	1.62E+0	1.93E+1	1.50E-2	6.11E-1	1.49E-3	-8.11E+0	1.18E+1
PM	disease inc.	7.88E-7	2.48E-7	2.56E-8	1.06E-6	2.88E-8	1.62E-7	1.89E-9	-3.49E-7	9.06E-7
IR	kBq U-235 eq	4.58E-1	1.85E-1	1.20E+0	1.84E+0	2.14E-2	9.39E-2	1.28E-3	-2.18E-1	1.74E+0
ETP-fw	CTUe	1.42E+2	3.43E+1	3.47E+1	2.11E+2	3.98E+0	3.52E+1	2.31E-1	-5.80E+1	1.92E+2
HTP-c	CTUh	6.13E-9	1.22E-9	6.60E-10	8.01E-9	1.42E-10	4.35E-9	6.81E-12	-2.48E-9	1.00E-8
HTP-nc	CTUh	1.66E-7	4.09E-8	2.25E-8	2.30E-7	4.74E-9	5.29E-8	1.49E-10	-7.01E-8	2.17E-7
SQP	Pt	3.58E+1	3.61E+1	2.77E+1	9.97E+1	4.19E+0	2.49E+1	7.07E-1	-1.26E+1	1.17E+2
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	1.31E+1	6.06E-1	1.45E+1	2.82E+1	7.03E-2	1.54E+0	1.06E-2	-5.82E+0	2.40E+1
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	1.31E+1	6.06E-1	1.45E+1	2.82E+1	7.03E-2	1.54E+0	1.06E-2	-5.82E+0	2.40E+1
PENRE	MJ	9.41E+2	4.48E+1	1.02E+2	1.09E+3	5.20E+0	3.32E+1	2.92E-1	-5.08E+2	6.18E+2
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	9.41E+2	4.48E+1	1.02E+2	1.09E+3	5.20E+0	3.32E+1	2.92E-1	-5.08E+2	6.18E+2
PET	MJ	9.54E+2	4.54E+1	1.16E+2	1.12E+3	5.27E+0	3.47E+1	3.03E-1	-5.14E+2	6.42E+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	2.68E-1	4.78E-3	5.34E-2	3.26E-1	5.54E-4	1.80E-2	3.39E-4	-1.21E-1	2.24E-1

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	1.19E-4	1.08E-4	8.34E-7	2.28E-4	1.25E-5	5.08E-5	3.33E-7	-1.13E-4	1.79E-4
NHWD	kg	1.09E+0	2.62E+0	4.71E-3	3.71E+0	3.04E-1	1.55E+0	1.21E+0	-3.61E-1	6.42E+0
RWD	kg	3.97E-4	2.87E-4	1.13E-6	6.85E-4	3.33E-5	1.19E-4	1.80E-6	-1.97E-4	6.42E-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