

Environmental Profile

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

Ecochain v3.5.80



Product: 3044820 - EK PPR Pipe GY 110x15,2 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

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Results

Environmental impact	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
GWP-total	kg CO2 eq	3.52E+1	3.90E+0	5.55E-1	3.97E+1	4.53E-1	1.36E+1	2.13E-1	-2.13E+1	3.27E+1
GWP-f	kg CO2 eq	3.51E+1	3.90E+0	4.51E-1	3.94E+1	4.52E-1	1.36E+1	2.13E-1	-2.12E+1	3.25E+1
GWP-b	kg CO2 eq	1.44E-1	2.37E-3	9.47E-2	2.41E-1	2.75E-4	-1.81E-2	1.85E-4	-7.36E-2	1.50E-1
GWP-luluc	kg CO2 eq	9.62E-3	1.38E-3	9.06E-3	2.01E-2	1.60E-4	2.54E-3	3.67E-6	-4.07E-3	1.87E-2
ODP	kg CFC11 eq	6.63E-7	8.99E-7	5.65E-7	2.13E-6	1.04E-7	3.31E-7	5.35E-9	-8.00E-7	1.77E-6
AP	mol H+ eq	1.27E-1	2.22E-2	4.97E-3	1.54E-1	2.58E-3	1.39E-2	1.28E-4	-5.92E-2	1.12E-1
EP-fw	kg P eq	5.29E-4	3.21E-5	2.26E-5	5.84E-4	3.72E-6	7.34E-5	1.68E-7	-2.32E-4	4.30E-4
EP-m	kg N eq	2.10E-2	7.95E-3	9.61E-4	2.99E-2	9.22E-4	4.06E-3	8.28E-5	-1.05E-2	2.45E-2
EP-T	mol N eq	2.40E-1	8.76E-2	1.13E-2	3.38E-1	1.02E-2	4.47E-2	5.19E-4	-1.16E-1	2.78E-1
POCP	kg NMVOC eq	1.09E-1	2.50E-2	2.49E-3	1.36E-1	2.90E-3	1.41E-2	1.95E-4	-5.35E-2	9.99E-2
ADP-mm	kg Sb eq	6.01E-4	1.01E-4	4.37E-5	7.46E-4	1.17E-5	5.51E-5	1.29E-7	-1.39E-4	6.74E-4
ADP-f	MJ	1.24E+3	5.99E+1	1.45E+2	1.44E+3	6.94E+0	4.42E+1	3.91E-1	-6.66E+2	8.27E+2
WDP	m3 depriv.	2.47E+1	1.84E-1	2.31E+0	2.72E+1	2.13E-2	8.65E-1	2.12E-3	-1.15E+1	1.66E+1
PM	disease inc.	1.11E-6	3.52E-7	3.66E-8	1.50E-6	4.08E-8	2.29E-7	2.69E-9	-4.94E-7	1.28E-6
IR	kBq U-235 eq	6.44E-1	2.62E-1	1.72E+0	2.62E+0	3.04E-2	1.33E-1	1.81E-3	-3.09E-1	2.48E+0
ETP-fw	CTUe	1.98E+2	4.86E+1	4.96E+1	2.96E+2	5.64E+0	4.99E+1	3.27E-1	-8.21E+1	2.70E+2
HTP-c	CTUh	8.63E-9	1.73E-9	9.43E-10	1.13E-8	2.01E-10	6.14E-9	9.66E-12	-3.51E-9	1.41E-8
HTP-nc	CTUh	2.34E-7	5.80E-8	3.22E-8	3.24E-7	6.72E-9	7.48E-8	2.11E-10	-9.93E-8	3.07E-7
SQP	Pt	4.99E+1	5.12E+1	3.96E+1	1.41E+2	5.94E+0	3.53E+1	1.00E+0	-1.79E+1	1.65E+2
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	1.83E+1	8.59E-1	2.07E+1	3.98E+1	9.96E-2	2.18E+0	1.50E-2	-8.24E+0	3.39E+1
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	1.83E+1	8.59E-1	2.07E+1	3.98E+1	9.96E-2	2.18E+0	1.50E-2	-8.24E+0	3.39E+1
PENRE	MJ	1.33E+3	6.36E+1	1.45E+2	1.54E+3	7.37E+0	4.70E+1	4.15E-1	-7.18E+2	8.73E+2
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	1.33E+3	6.36E+1	1.45E+2	1.54E+3	7.37E+0	4.70E+1	4.15E-1	-7.18E+2	8.73E+2
PET	MJ	1.35E+3	6.44E+1	1.66E+2	1.58E+3	7.47E+0	4.92E+1	4.30E-1	-7.27E+2	9.07E+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	3.76E-1	6.78E-3	7.63E-2	4.59E-1	7.86E-4	2.55E-2	4.81E-4	-1.72E-1	3.14E-1

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	1.68E-4	1.53E-4	1.19E-6	3.23E-4	1.78E-5	7.19E-5	4.72E-7	-1.57E-4	2.56E-4
NHWD	kg	1.53E+0	3.71E+0	6.73E-3	5.25E+0	4.30E-1	2.19E+0	1.72E+0	-5.11E-1	9.07E+0
RWD	kg	5.58E-4	4.07E-4	1.61E-6	9.66E-4	4.72E-5	1.69E-4	2.55E-6	-2.78E-4	9.07E-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



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