

Environmental Profile

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

Ecochain v3.5.80



Product: 3022997 - EK PPR Pipe GY 110x18,3 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

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Results

Environmental impact	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
GWP-total	kg CO2 eq	4.06E+1	4.51E+0	6.46E-1	4.58E+1	5.23E-1	1.56E+1	2.46E-1	-2.46E+1	3.77E+1
GWP-f	kg CO2 eq	4.05E+1	4.51E+0	5.25E-1	4.55E+1	5.23E-1	1.57E+1	2.46E-1	-2.45E+1	3.75E+1
GWP-b	kg CO2 eq	1.69E-1	2.74E-3	1.10E-1	2.82E-1	3.18E-4	-2.10E-2	2.14E-4	-8.51E-2	1.76E-1
GWP-luluc	kg CO2 eq	1.10E-2	1.60E-3	1.06E-2	2.32E-2	1.85E-4	2.94E-3	4.24E-6	-4.71E-3	2.16E-2
ODP	kg CFC11 eq	7.64E-7	1.04E-6	6.59E-7	2.46E-6	1.20E-7	3.83E-7	6.19E-9	-9.20E-7	2.05E-6
AP	mol H+ eq	1.47E-1	2.57E-2	5.79E-3	1.78E-1	2.98E-3	1.61E-2	1.48E-4	-6.84E-2	1.29E-1
EP-fw	kg P eq	6.09E-4	3.71E-5	2.63E-5	6.73E-4	4.30E-6	8.48E-5	1.94E-7	-2.68E-4	4.94E-4
EP-m	kg N eq	2.42E-2	9.19E-3	1.12E-3	3.45E-2	1.07E-3	4.69E-3	9.57E-5	-1.21E-2	2.82E-2
EP-T	mol N eq	2.76E-1	1.01E-1	1.31E-2	3.91E-1	1.17E-2	5.16E-2	5.99E-4	-1.34E-1	3.21E-1
POCP	kg NMVOC eq	1.25E-1	2.89E-2	2.90E-3	1.57E-1	3.36E-3	1.63E-2	2.25E-4	-6.18E-2	1.15E-1
ADP-mm	kg Sb eq	6.96E-4	1.17E-4	5.09E-5	8.63E-4	1.35E-5	6.37E-5	1.49E-7	-1.61E-4	7.80E-4
ADP-f	MJ	1.43E+3	6.92E+1	1.69E+2	1.67E+3	8.03E+0	5.10E+1	4.52E-1	-7.69E+2	9.56E+2
WDP	m3 depriv.	2.85E+1	2.12E-1	2.69E+0	3.14E+1	2.46E-2	1.00E+0	2.45E-3	-1.33E+1	1.92E+1
PM	disease inc.	1.28E-6	4.07E-7	4.26E-8	1.73E-6	4.72E-8	2.65E-7	3.11E-9	-5.71E-7	1.47E-6
IR	kBq U-235 eq	7.42E-1	3.02E-1	2.00E+0	3.04E+0	3.51E-2	1.54E-1	2.09E-3	-3.57E-1	2.88E+0
ETP-fw	CTUe	2.28E+2	5.62E+1	5.78E+1	3.42E+2	6.52E+0	5.76E+1	3.78E-1	-9.48E+1	3.11E+2
HTP-c	CTUh	9.95E-9	2.00E-9	1.10E-9	1.31E-8	2.32E-10	7.09E-9	1.12E-11	-4.06E-9	1.63E-8
HTP-nc	CTUh	2.70E-7	6.70E-8	3.75E-8	3.75E-7	7.77E-9	8.63E-8	2.44E-10	-1.15E-7	3.54E-7
SQP	Pt	5.74E+1	5.92E+1	4.61E+1	1.63E+2	6.87E+0	4.08E+1	1.16E+0	-2.06E+1	1.91E+2
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	2.10E+1	9.93E-1	2.41E+1	4.61E+1	1.15E-1	2.51E+0	1.74E-2	-9.52E+0	3.93E+1
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	2.10E+1	9.93E-1	2.41E+1	4.61E+1	1.15E-1	2.51E+0	1.74E-2	-9.52E+0	3.93E+1
PENRE	MJ	1.53E+3	7.35E+1	1.69E+2	1.77E+3	8.52E+0	5.44E+1	4.79E-1	-8.29E+2	1.01E+3
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	1.53E+3	7.35E+1	1.69E+2	1.77E+3	8.52E+0	5.44E+1	4.79E-1	-8.29E+2	1.01E+3
PET	MJ	1.55E+3	7.45E+1	1.93E+2	1.82E+3	8.64E+0	5.69E+1	4.97E-1	-8.39E+2	1.05E+3
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	4.33E-1	7.83E-3	8.89E-2	5.30E-1	9.08E-4	2.95E-2	5.56E-4	-1.99E-1	3.63E-1

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	1.94E-4	1.77E-4	1.39E-6	3.73E-4	2.05E-5	8.31E-5	5.46E-7	-1.81E-4	2.96E-4
NHWD	kg	1.77E+0	4.29E+0	7.84E-3	6.06E+0	4.97E-1	2.52E+0	1.99E+0	-5.91E-1	1.05E+1
RWD	kg	6.43E-4	4.71E-4	1.88E-6	1.12E-3	5.46E-5	1.95E-4	2.95E-6	-3.21E-4	1.05E-3
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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