

Environmental Profile

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

Ecochain v3.5.80



Product: 3044813 - EK PPR Pipe GY 20x2,8 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	1.21E+0	1.32E-1	1.91E-2	1.36E+0	1.55E-2	4.67E-1	7.28E-3	-7.29E-1	1.12E+0
GWP-f	kg CO2 eq	1.20E+0	1.32E-1	1.55E-2	1.35E+0	1.55E-2	4.68E-1	7.28E-3	-7.26E-1	1.11E+0
GWP-b	kg CO2 eq	4.84E-3	7.57E-5	3.26E-3	8.17E-3	9.38E-6	-6.20E-4	6.33E-6	-2.52E-3	5.05E-3
GWP-luluc	kg CO2 eq	3.32E-4	4.80E-5	3.12E-4	6.91E-4	5.47E-6	8.69E-5	1.25E-7	-1.39E-4	6.45E-4
ODP	kg CFC11 eq	2.28E-8	3.02E-8	1.95E-8	7.25E-8	3.56E-9	1.13E-8	1.83E-10	-2.75E-8	6.00E-8
AP	mol H+ eq	4.36E-3	8.91E-4	1.71E-4	5.42E-3	8.80E-5	4.77E-4	4.37E-6	-2.02E-3	3.97E-3
EP-fw	kg P eq	1.82E-5	1.06E-6	7.77E-7	2.00E-5	1.27E-7	2.51E-6	5.73E-9	-7.92E-6	1.48E-5
EP-m	kg N eq	7.19E-4	3.00E-4	3.31E-5	1.05E-3	3.15E-5	1.39E-4	2.83E-6	-3.58E-4	8.67E-4
EP-T	mol N eq	8.22E-3	3.31E-3	3.88E-4	1.19E-2	3.47E-4	1.53E-3	1.77E-5	-3.96E-3	9.85E-3
POCP	kg NMVOC eq	3.72E-3	9.34E-4	8.56E-5	4.74E-3	9.92E-5	4.83E-4	6.65E-6	-1.83E-3	3.50E-3
ADP-mm	kg Sb eq	2.07E-5	3.31E-6	1.50E-6	2.55E-5	4.00E-7	1.88E-6	4.41E-9	-4.76E-6	2.30E-5
ADP-f	MJ	4.23E+1	2.01E+0	4.99E+0	4.93E+1	2.37E-1	1.51E+0	1.33E-2	-2.28E+1	2.83E+1
WDP	m3 depriv.	8.47E-1	6.05E-3	7.94E-2	9.32E-1	7.28E-4	2.96E-2	7.26E-5	-3.93E-1	5.70E-1
PM	disease inc.	3.80E-8	1.16E-8	1.26E-9	5.09E-8	1.39E-9	7.84E-9	9.18E-11	-1.69E-8	4.33E-8
IR	kBq U-235 eq	2.21E-2	8.78E-3	5.91E-2	8.99E-2	1.04E-3	4.55E-3	6.18E-5	-1.06E-2	8.50E-2
ETP-fw	CTUe	6.82E+0	1.62E+0	1.71E+0	1.02E+1	1.93E-1	1.70E+0	1.12E-2	-2.81E+0	9.25E+0
HTP-c	CTUh	2.96E-10	5.89E-11	3.24E-11	3.88E-10	6.85E-12	2.10E-10	3.30E-13	-1.20E-10	4.85E-10
HTP-nc	CTUh	8.04E-9	1.91E-9	1.11E-9	1.11E-8	2.30E-10	2.56E-9	7.21E-12	-3.39E-9	1.05E-8
SQP	Pt	1.72E+0	1.67E+0	1.36E+0	4.76E+0	2.03E-1	1.21E+0	3.42E-2	-6.11E-1	5.59E+0
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	6.28E-1	2.83E-2	7.12E-1	1.37E+0	3.40E-3	7.44E-2	5.14E-4	-2.81E-1	1.17E+0
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	6.28E-1	2.83E-2	7.12E-1	1.37E+0	3.40E-3	7.44E-2	5.14E-4	-2.81E-1	1.17E+0
PENRE	MJ	4.54E+1	2.13E+0	5.00E+0	5.26E+1	2.52E-1	1.61E+0	1.42E-2	-2.46E+1	2.99E+1
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	4.54E+1	2.13E+0	5.00E+0	5.26E+1	2.52E-1	1.61E+0	1.42E-2	-2.46E+1	2.99E+1
PET	MJ	4.61E+1	2.16E+0	5.71E+0	5.39E+1	2.55E-1	1.68E+0	1.47E-2	-2.49E+1	3.10E+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	1.29E-2	2.23E-4	2.63E-3	1.58E-2	2.68E-5	8.72E-4	1.64E-5	-5.88E-3	1.08E-2

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	5.78E-6	5.03E-6	4.10E-8	1.09E-5	6.07E-7	2.46E-6	1.61E-8	-5.40E-6	8.53E-6
NHWD	kg	5.27E-2	1.21E-1	2.32E-4	1.74E-1	1.47E-2	7.48E-2	5.88E-2	-1.75E-2	3.04E-1
RWD	kg	1.91E-5	1.37E-5	5.55E-8	3.29E-5	1.61E-6	5.76E-6	8.71E-8	-9.52E-6	3.08E-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



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