

Environmental Profile

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

Ecochain v3.5.80



Product: 3044799 - EK PPR Pipe GY 32x2,9 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	2.14E+0	2.32E-1	3.37E-2	2.40E+0	2.72E-2	8.35E-1	1.28E-2	-1.29E+0	1.99E+0
GWP-f	kg CO2 eq	2.13E+0	2.31E-1	2.74E-2	2.39E+0	2.71E-2	8.36E-1	1.28E-2	-1.29E+0	1.98E+0
GWP-b	kg CO2 eq	8.07E-3	1.33E-4	5.75E-3	1.40E-2	1.65E-5	-1.09E-3	1.11E-5	-4.42E-3	8.47E-3
GWP-luluc	kg CO2 eq	5.96E-4	8.44E-5	5.50E-4	1.23E-3	9.61E-6	1.53E-4	2.20E-7	-2.45E-4	1.15E-3
ODP	kg CFC11 eq	4.05E-8	5.31E-8	3.43E-8	1.28E-7	6.25E-9	1.99E-8	3.21E-10	-4.92E-8	1.05E-7
AP	mol H+ eq	7.73E-3	1.57E-3	3.02E-4	9.60E-3	1.55E-4	8.40E-4	7.67E-6	-3.56E-3	7.04E-3
EP-fw	kg P eq	3.25E-5	1.86E-6	1.37E-6	3.58E-5	2.23E-7	4.41E-6	1.01E-8	-1.39E-5	2.65E-5
EP-m	kg N eq	1.28E-3	5.28E-4	5.83E-5	1.86E-3	5.53E-5	2.45E-4	4.96E-6	-6.31E-4	1.54E-3
EP-T	mol N eq	1.46E-2	5.82E-3	6.84E-4	2.11E-2	6.10E-4	2.70E-3	3.11E-5	-6.99E-3	1.74E-2
POCP	kg NMVOC eq	6.61E-3	1.64E-3	1.51E-4	8.40E-3	1.74E-4	8.52E-4	1.17E-5	-3.22E-3	6.22E-3
ADP-mm	kg Sb eq	3.65E-5	5.81E-6	2.65E-6	4.50E-5	7.02E-7	3.31E-6	7.75E-9	-8.36E-6	4.06E-5
ADP-f	MJ	7.48E+1	3.53E+0	8.80E+0	8.71E+1	4.17E-1	2.65E+0	2.34E-2	-4.02E+1	5.00E+1
WDP	m3 depriv.	1.50E+0	1.06E-2	1.40E-1	1.65E+0	1.28E-3	5.20E-2	1.27E-4	-6.90E-1	1.01E+0
PM	disease inc.	6.75E-8	2.04E-8	2.22E-9	9.00E-8	2.45E-9	1.38E-8	1.61E-10	-2.97E-8	7.68E-8
IR	kBq U-235 eq	3.92E-2	1.54E-2	1.04E-1	1.59E-1	1.82E-3	8.00E-3	1.09E-4	-1.86E-2	1.50E-1
ETP-fw	CTUe	1.22E+1	2.85E+0	3.01E+0	1.81E+1	3.38E-1	3.00E+0	1.96E-2	-4.94E+0	1.65E+1
HTP-c	CTUh	5.26E-10	1.03E-10	5.72E-11	6.86E-10	1.20E-11	3.71E-10	5.80E-13	-2.12E-10	8.58E-10
HTP-nc	CTUh	1.43E-8	3.36E-9	1.95E-9	1.96E-8	4.03E-10	4.51E-9	1.27E-11	-5.97E-9	1.85E-8
SQP	Pt	3.10E+0	2.94E+0	2.40E+0	8.44E+0	3.56E-1	2.12E+0	6.01E-2	-1.08E+0	9.90E+0
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	1.12E+0	4.97E-2	1.26E+0	2.43E+0	5.98E-3	1.31E-1	9.03E-4	-4.95E-1	2.07E+0
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	1.12E+0	4.97E-2	1.26E+0	2.43E+0	5.98E-3	1.31E-1	9.03E-4	-4.95E-1	2.07E+0
PENRE	MJ	8.03E+1	3.75E+0	8.82E+0	9.29E+1	4.42E-1	2.83E+0	2.49E-2	-4.33E+1	5.28E+1
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	8.03E+1	3.75E+0	8.82E+0	9.29E+1	4.42E-1	2.83E+0	2.49E-2	-4.33E+1	5.28E+1
PET	MJ	8.14E+1	3.80E+0	1.01E+1	9.53E+1	4.48E-1	2.96E+0	2.58E-2	-4.38E+1	5.49E+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	2.30E-2	3.92E-4	4.63E-3	2.80E-2	4.71E-5	1.54E-3	2.89E-5	-1.03E-2	1.93E-2

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	1.03E-5	8.83E-6	7.23E-8	1.92E-5	1.07E-6	4.33E-6	2.83E-8	-9.67E-6	1.49E-5
NHWD	kg	9.40E-2	2.12E-1	4.09E-4	3.06E-1	2.58E-2	1.32E-1	1.03E-1	-3.08E-2	5.37E-1
RWD	kg	3.40E-5	2.40E-5	9.79E-8	5.81E-5	2.83E-6	1.01E-5	1.53E-7	-1.68E-5	5.44E-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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