

Environmental Profile

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

Ecochain v3.5.80



Product: 3022994 - EK PPR Pipe GY 63x10,5 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	1.38E+1	1.53E+0	2.13E-1	1.55E+1	1.77E-1	5.30E+0	8.35E-2	-8.32E+0	1.27E+1
GWP-f	kg CO2 eq	1.37E+1	1.53E+0	1.73E-1	1.54E+1	1.77E-1	5.31E+0	8.35E-2	-8.29E+0	1.27E+1
GWP-b	kg CO2 eq	5.73E-2	9.28E-4	3.63E-2	9.45E-2	1.08E-4	-7.11E-3	7.26E-5	-2.88E-2	5.87E-2
GWP-luluc	kg CO2 eq	3.74E-3	5.41E-4	3.48E-3	7.76E-3	6.27E-5	9.96E-4	1.44E-6	-1.60E-3	7.22E-3
ODP	kg CFC11 eq	2.59E-7	3.52E-7	2.17E-7	8.28E-7	4.08E-8	1.30E-7	2.10E-9	-3.12E-7	6.89E-7
AP	mol H+ eq	4.96E-2	8.70E-3	1.91E-3	6.02E-2	1.01E-3	5.46E-3	5.01E-5	-2.32E-2	4.36E-2
EP-fw	kg P eq	2.06E-4	1.26E-5	8.66E-6	2.27E-4	1.46E-6	2.87E-5	6.57E-8	-9.07E-5	1.67E-4
EP-m	kg N eq	8.18E-3	3.11E-3	3.69E-4	1.17E-2	3.61E-4	1.59E-3	3.24E-5	-4.10E-3	9.55E-3
EP-T	mol N eq	9.35E-2	3.43E-2	4.32E-3	1.32E-1	3.98E-3	1.75E-2	2.03E-4	-4.54E-2	1.08E-1
POCP	kg NMVOC eq	4.24E-2	9.81E-3	9.54E-4	5.32E-2	1.14E-3	5.53E-3	7.62E-5	-2.09E-2	3.90E-2
ADP-mm	kg Sb eq	2.34E-4	3.95E-5	1.68E-5	2.90E-4	4.58E-6	2.16E-5	5.06E-8	-5.45E-5	2.62E-4
ADP-f	MJ	4.84E+2	2.35E+1	5.56E+1	5.63E+2	2.72E+0	1.73E+1	1.53E-1	-2.61E+2	3.22E+2
WDP	m3 depriv.	9.66E+0	7.20E-2	8.86E-1	1.06E+1	8.35E-3	3.39E-1	8.30E-4	-4.50E+0	6.46E+0
PM	disease inc.	4.33E-7	1.38E-7	1.40E-8	5.85E-7	1.60E-8	8.98E-8	1.05E-9	-1.93E-7	4.99E-7
IR	kBq U-235 eq	2.51E-1	1.03E-1	6.59E-1	1.01E+0	1.19E-2	5.21E-2	7.09E-4	-1.21E-1	9.56E-1
ETP-fw	CTUe	7.71E+1	1.90E+1	1.90E+1	1.15E+2	2.21E+0	1.95E+1	1.28E-1	-3.21E+1	1.05E+2
HTP-c	CTUh	3.36E-9	6.78E-10	3.62E-10	4.40E-9	7.86E-11	2.40E-9	3.78E-12	-1.37E-9	5.51E-9
HTP-nc	CTUh	9.14E-8	2.27E-8	1.24E-8	1.26E-7	2.63E-9	2.93E-8	8.27E-11	-3.89E-8	1.19E-7
SQP	Pt	1.93E+1	2.01E+1	1.52E+1	5.46E+1	2.33E+0	1.38E+1	3.93E-1	-6.99E+0	6.41E+1
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	7.12E+0	3.37E-1	7.94E+0	1.54E+1	3.90E-2	8.52E-1	5.90E-3	-3.23E+0	1.31E+1
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	7.12E+0	3.37E-1	7.94E+0	1.54E+1	3.90E-2	8.52E-1	5.90E-3	-3.23E+0	1.31E+1
PENRE	MJ	5.19E+2	2.49E+1	5.58E+1	6.00E+2	2.89E+0	1.84E+1	1.62E-1	-2.81E+2	3.40E+2
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	5.19E+2	2.49E+1	5.58E+1	6.00E+2	2.89E+0	1.84E+1	1.62E-1	-2.81E+2	3.40E+2
PET	MJ	5.26E+2	2.52E+1	6.37E+1	6.15E+2	2.93E+0	1.93E+1	1.68E-1	-2.84E+2	3.53E+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	1.47E-1	2.65E-3	2.93E-2	1.79E-1	3.08E-4	9.99E-3	1.88E-4	-6.73E-2	1.22E-1

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	6.54E-5	6.00E-5	4.57E-7	1.26E-4	6.96E-6	2.82E-5	1.85E-7	-6.12E-5	1.00E-4
NHWD	kg	5.95E-1	1.45E+0	2.58E-3	2.05E+0	1.69E-1	8.55E-1	6.74E-1	-2.00E-1	3.55E+0
RWD	kg	2.18E-4	1.60E-4	6.19E-7	3.78E-4	1.85E-5	6.60E-5	9.99E-7	-1.09E-4	3.54E-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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