

Environmental Profile

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

Ecochain v3.5.80



Product: 3044818 - EK PPR Pipe GY 75x10,3 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	1.64E+1	1.82E+0	2.59E-1	1.85E+1	2.11E-1	6.35E+0	9.92E-2	-9.92E+0	1.52E+1
GWP-f	kg CO2 eq	1.64E+1	1.82E+0	2.11E-1	1.84E+1	2.11E-1	6.35E+0	9.92E-2	-9.89E+0	1.52E+1
GWP-b	kg CO2 eq	6.66E-2	1.10E-3	4.43E-2	1.12E-1	1.28E-4	-8.44E-3	8.63E-5	-3.43E-2	6.94E-2
GWP-luluc	kg CO2 eq	4.49E-3	6.43E-4	4.24E-3	9.37E-3	7.45E-5	1.18E-3	1.71E-6	-1.90E-3	8.73E-3
ODP	kg CFC11 eq	3.09E-7	4.18E-7	2.64E-7	9.92E-7	4.85E-8	1.54E-7	2.49E-9	-3.74E-7	8.23E-7
AP	mol H+ eq	5.93E-2	1.03E-2	2.32E-3	7.19E-2	1.20E-3	6.49E-3	5.95E-5	-2.76E-2	5.21E-2
EP-fw	kg P eq	2.47E-4	1.49E-5	1.06E-5	2.73E-4	1.73E-6	3.41E-5	7.81E-8	-1.08E-4	2.01E-4
EP-m	kg N eq	9.77E-3	3.70E-3	4.49E-4	1.39E-2	4.29E-4	1.89E-3	3.85E-5	-4.88E-3	1.14E-2
EP-T	mol N eq	1.12E-1	4.08E-2	5.27E-3	1.58E-1	4.73E-3	2.08E-2	2.41E-4	-5.40E-2	1.30E-1
POCP	kg NMVOC eq	5.06E-2	1.17E-2	1.16E-3	6.35E-2	1.35E-3	6.58E-3	9.06E-5	-2.49E-2	4.66E-2
ADP-mm	kg Sb eq	2.80E-4	4.70E-5	2.04E-5	3.48E-4	5.45E-6	2.57E-5	6.01E-8	-6.48E-5	3.14E-4
ADP-f	MJ	5.76E+2	2.79E+1	6.78E+1	6.72E+2	3.23E+0	2.06E+1	1.82E-1	-3.10E+2	3.86E+2
WDP	m3 depriv.	1.15E+1	8.55E-2	1.08E+0	1.27E+1	9.92E-3	4.03E-1	9.86E-4	-5.35E+0	7.75E+0
PM	disease inc.	5.17E-7	1.64E-7	1.71E-8	6.98E-7	1.90E-8	1.07E-7	1.25E-9	-2.30E-7	5.95E-7
IR	kBq U-235 eq	3.00E-1	1.22E-1	8.02E-1	1.22E+0	1.41E-2	6.19E-2	8.42E-4	-1.44E-1	1.16E+0
ETP-fw	CTUe	9.24E+1	2.26E+1	2.32E+1	1.38E+2	2.62E+0	2.32E+1	1.52E-1	-3.82E+1	1.26E+2
HTP-c	CTUh	4.02E-9	8.05E-10	4.41E-10	5.27E-9	9.34E-11	2.86E-9	4.50E-12	-1.64E-9	6.59E-9
HTP-nc	CTUh	1.09E-7	2.70E-8	1.50E-8	1.51E-7	3.13E-9	3.48E-8	9.83E-11	-4.62E-8	1.43E-7
SQP	Pt	2.33E+1	2.38E+1	1.85E+1	6.57E+1	2.77E+0	1.64E+1	4.66E-1	-8.32E+0	7.70E+1
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	8.53E+0	4.00E-1	9.68E+0	1.86E+1	4.64E-2	1.01E+0	7.00E-3	-3.83E+0	1.58E+1
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	8.53E+0	4.00E-1	9.68E+0	1.86E+1	4.64E-2	1.01E+0	7.00E-3	-3.83E+0	1.58E+1
PENRE	MJ	6.18E+2	2.96E+1	6.79E+1	7.16E+2	3.43E+0	2.19E+1	1.93E-1	-3.35E+2	4.07E+2
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	6.18E+2	2.96E+1	6.79E+1	7.16E+2	3.43E+0	2.19E+1	1.93E-1	-3.35E+2	4.07E+2
PET	MJ	6.27E+2	3.00E+1	7.76E+1	7.35E+2	3.48E+0	2.29E+1	2.00E-1	-3.38E+2	4.23E+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	1.76E-1	3.15E-3	3.57E-2	2.14E-1	3.66E-4	1.19E-2	2.24E-4	-8.00E-2	1.47E-1

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	7.85E-5	7.13E-5	5.57E-7	1.50E-4	8.27E-6	3.35E-5	2.20E-7	-7.34E-5	1.19E-4
NHWD	kg	7.15E-1	1.73E+0	3.15E-3	2.45E+0	2.00E-1	1.02E+0	8.01E-1	-2.38E-1	4.23E+0
RWD	kg	2.60E-4	1.90E-4	7.54E-7	4.50E-4	2.20E-5	7.85E-5	1.19E-6	-1.30E-4	4.22E-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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