

Environmental Profile

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

Ecochain v3.5.80



Product: 3044802 - EK PPR Pipe GY 63x5,8 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	8.26E+0	9.09E-1	1.30E-1	9.30E+0	1.05E-1	3.21E+0	4.96E-2	-4.99E+0	7.68E+0
GWP-f	kg CO2 eq	8.23E+0	9.08E-1	1.06E-1	9.24E+0	1.05E-1	3.22E+0	4.96E-2	-4.97E+0	7.64E+0
GWP-b	kg CO2 eq	3.21E-2	5.51E-4	2.22E-2	5.49E-2	6.39E-5	-4.22E-3	4.31E-5	-1.72E-2	3.36E-2
GWP-luluc	kg CO2 eq	2.28E-3	3.21E-4	2.13E-3	4.73E-3	3.73E-5	5.92E-4	8.54E-7	-9.50E-4	4.41E-3
ODP	kg CFC11 eq	1.56E-7	2.09E-7	1.33E-7	4.98E-7	2.43E-8	7.72E-8	1.25E-9	-1.89E-7	4.11E-7
AP	mol H+ eq	2.99E-2	5.17E-3	1.17E-3	3.62E-2	6.00E-4	3.25E-3	2.97E-5	-1.38E-2	2.63E-2
EP-fw	kg P eq	1.25E-4	7.47E-6	5.30E-6	1.38E-4	8.66E-7	1.71E-5	3.90E-8	-5.40E-5	1.02E-4
EP-m	kg N eq	4.93E-3	1.85E-3	2.26E-4	7.00E-3	2.15E-4	9.48E-4	1.93E-5	-2.45E-3	5.74E-3
EP-T	mol N eq	5.63E-2	2.04E-2	2.65E-3	7.93E-2	2.36E-3	1.04E-2	1.21E-4	-2.71E-2	6.52E-2
POCP	kg NMVOC eq	2.55E-2	5.83E-3	5.84E-4	3.19E-2	6.76E-4	3.30E-3	4.53E-5	-1.25E-2	2.35E-2
ADP-mm	kg Sb eq	1.41E-4	2.35E-5	1.03E-5	1.75E-4	2.72E-6	1.28E-5	3.01E-8	-3.24E-5	1.58E-4
ADP-f	MJ	2.89E+2	1.39E+1	3.41E+1	3.37E+2	1.62E+0	1.03E+1	9.10E-2	-1.56E+2	1.94E+2
WDP	m3 depriv.	5.79E+0	4.28E-2	5.42E-1	6.38E+0	4.96E-3	2.02E-1	4.93E-4	-2.68E+0	3.91E+0
PM	disease inc.	2.60E-7	8.20E-8	8.59E-9	3.51E-7	9.50E-9	5.35E-8	6.25E-10	-1.15E-7	3.00E-7
IR	kBq U-235 eq	1.51E-1	6.09E-2	4.03E-1	6.15E-1	7.06E-3	3.10E-2	4.21E-4	-7.20E-2	5.82E-1
ETP-fw	CTUe	4.69E+1	1.13E+1	1.16E+1	6.98E+1	1.31E+0	1.16E+1	7.61E-2	-1.92E+1	6.37E+1
HTP-c	CTUh	2.03E-9	4.03E-10	2.21E-10	2.65E-9	4.67E-11	1.44E-9	2.25E-12	-8.20E-10	3.32E-9
HTP-nc	CTUh	5.50E-8	1.35E-8	7.56E-9	7.61E-8	1.56E-9	1.75E-8	4.92E-11	-2.32E-8	7.20E-8
SQP	Pt	1.19E+1	1.19E+1	9.30E+0	3.31E+1	1.38E+0	8.22E+0	2.33E-1	-4.17E+0	3.88E+1
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	4.32E+0	2.00E-1	4.86E+0	9.38E+0	2.32E-2	5.07E-1	3.50E-3	-1.92E+0	7.99E+0
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	4.32E+0	2.00E-1	4.86E+0	9.38E+0	2.32E-2	5.07E-1	3.50E-3	-1.92E+0	7.99E+0
PENRE	MJ	3.11E+2	1.48E+1	3.41E+1	3.60E+2	1.72E+0	1.10E+1	9.65E-2	-1.68E+2	2.05E+2
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	3.11E+2	1.48E+1	3.41E+1	3.60E+2	1.72E+0	1.10E+1	9.65E-2	-1.68E+2	2.05E+2
PET	MJ	3.15E+2	1.50E+1	3.90E+1	3.69E+2	1.74E+0	1.15E+1	1.00E-1	-1.70E+2	2.13E+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	8.86E-2	1.58E-3	1.79E-2	1.08E-1	1.83E-4	5.95E-3	1.12E-4	-4.01E-2	7.43E-2

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	3.95E-5	3.56E-5	2.80E-7	7.55E-5	4.13E-6	1.68E-5	1.10E-7	-3.72E-5	5.93E-5
NHWD	kg	3.62E-1	8.64E-1	1.58E-3	1.23E+0	1.00E-1	5.11E-1	4.00E-1	-1.19E-1	2.12E+0
RWD	kg	1.31E-4	9.48E-5	3.79E-7	2.26E-4	1.10E-5	3.93E-5	5.93E-7	-6.50E-5	2.12E-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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