

Environmental Profile

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

Ecochain v3.5.80



Product: 3044919 - EK PPR Pipe GY 40x6,7 PN20 L=3
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	4.24E+0	4.62E-1	6.49E-2	4.76E+0	5.41E-2	1.65E+0	2.55E-2	-2.56E+0	3.93E+0
GWP-f	kg CO2 eq	4.22E+0	4.61E-1	5.28E-2	4.73E+0	5.41E-2	1.65E+0	2.55E-2	-2.55E+0	3.91E+0
GWP-b	kg CO2 eq	1.65E-2	2.65E-4	1.11E-2	2.79E-2	3.28E-5	-2.17E-3	2.22E-5	-8.81E-3	1.70E-2
GWP-luluc	kg CO2 eq	1.17E-3	1.68E-4	1.06E-3	2.40E-3	1.91E-5	3.04E-4	4.39E-7	-4.88E-4	2.23E-3
ODP	kg CFC11 eq	7.99E-8	1.06E-7	6.62E-8	2.52E-7	1.25E-8	3.96E-8	6.40E-10	-9.71E-8	2.08E-7
AP	mol H+ eq	1.53E-2	3.12E-3	5.82E-4	1.90E-2	3.08E-4	1.67E-3	1.53E-5	-7.08E-3	1.39E-2
EP-fw	kg P eq	6.41E-5	3.72E-6	2.64E-6	7.04E-5	4.45E-7	8.77E-6	2.00E-8	-2.77E-5	5.20E-5
EP-m	kg N eq	2.53E-3	1.05E-3	1.12E-4	3.69E-3	1.10E-4	4.87E-4	9.89E-6	-1.26E-3	3.04E-3
EP-T	mol N eq	2.88E-2	1.16E-2	1.32E-3	4.18E-2	1.21E-3	5.36E-3	6.20E-5	-1.39E-2	3.45E-2
POCP	kg NMVOC eq	1.31E-2	3.27E-3	2.91E-4	1.66E-2	3.47E-4	1.69E-3	2.33E-5	-6.41E-3	1.23E-2
ADP-mm	kg Sb eq	7.15E-5	1.16E-5	5.11E-6	8.82E-5	1.40E-6	6.59E-6	1.54E-8	-1.66E-5	7.96E-5
ADP-f	MJ	1.49E+2	7.03E+0	1.70E+1	1.73E+2	8.30E-1	5.28E+0	4.67E-2	-7.99E+1	9.88E+1
WDP	m3 depriv.	2.97E+0	2.12E-2	2.70E-1	3.26E+0	2.55E-3	1.03E-1	2.53E-4	-1.37E+0	2.00E+0
PM	disease inc.	1.33E-7	4.06E-8	4.28E-9	1.78E-7	4.88E-9	2.75E-8	3.21E-10	-5.91E-8	1.52E-7
IR	kBq U-235 eq	7.76E-2	3.07E-2	2.01E-1	3.09E-1	3.63E-3	1.59E-2	2.16E-4	-3.70E-2	2.92E-1
ETP-fw	CTUe	2.40E+1	5.67E+0	5.80E+0	3.55E+1	6.74E-1	5.97E+0	3.91E-2	-9.83E+0	3.23E+1
HTP-c	CTUh	1.04E-9	2.06E-10	1.10E-10	1.35E-9	2.40E-11	7.37E-10	1.15E-12	-4.21E-10	1.69E-9
HTP-nc	CTUh	2.82E-8	6.70E-9	3.77E-9	3.86E-8	8.03E-10	8.96E-9	2.52E-11	-1.19E-8	3.65E-8
SQP	Pt	6.04E+0	5.85E+0	4.63E+0	1.65E+1	7.10E-1	4.22E+0	1.20E-1	-2.14E+0	1.94E+1
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	2.21E+0	9.91E-2	2.42E+0	4.74E+0	1.19E-2	2.60E-1	1.80E-3	-9.86E-1	4.02E+0
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	2.21E+0	9.91E-2	2.42E+0	4.74E+0	1.19E-2	2.60E-1	1.80E-3	-9.86E-1	4.02E+0
PENRE	MJ	1.59E+2	7.47E+0	1.70E+1	1.84E+2	8.81E-1	5.63E+0	4.96E-2	-8.61E+1	1.04E+2
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	1.59E+2	7.47E+0	1.70E+1	1.84E+2	8.81E-1	5.63E+0	4.96E-2	-8.61E+1	1.04E+2
PET	MJ	1.62E+2	7.57E+0	1.94E+1	1.89E+2	8.93E-1	5.89E+0	5.14E-2	-8.71E+1	1.08E+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	4.54E-2	7.81E-4	8.93E-3	5.51E-2	9.39E-5	3.06E-3	5.75E-5	-2.06E-2	3.78E-2

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	2.01E-5	1.76E-5	1.39E-7	3.79E-5	2.12E-6	8.61E-6	5.64E-8	-1.91E-5	2.96E-5
NHWD	kg	1.84E-1	4.22E-1	7.88E-4	6.07E-1	5.14E-2	2.62E-1	2.06E-1	-6.12E-2	1.07E+0
RWD	kg	6.72E-5	4.79E-5	1.89E-7	1.15E-4	5.64E-6	2.02E-5	3.05E-7	-3.34E-5	1.08E-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



Ecochain Technologies BV
H.J.E. Wenckebachweg 123, 1096 AM Amsterdam, The Netherlands
<https://www.ecochain.com>
+31 20 3035 777