

Environmental Profile

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

Ecochain v3.5.80



Product: 3044804 - EK PPR Pipe GY 20x3,4 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	1.06E+0	1.16E-1	1.66E-2	1.19E+0	1.36E-2	4.09E-1	6.40E-3	-6.39E-1	9.80E-1
GWP-f	kg CO2 eq	1.05E+0	1.16E-1	1.35E-2	1.18E+0	1.36E-2	4.09E-1	6.40E-3	-6.37E-1	9.75E-1
GWP-b	kg CO2 eq	4.31E-3	6.65E-5	2.84E-3	7.22E-3	8.25E-6	-5.45E-4	5.56E-6	-2.21E-3	4.48E-3
GWP-luluc	kg CO2 eq	2.90E-4	4.22E-5	2.72E-4	6.04E-4	4.81E-6	7.64E-5	1.10E-7	-1.22E-4	5.63E-4
ODP	kg CFC11 eq	2.01E-8	2.66E-8	1.70E-8	6.36E-8	3.13E-9	9.95E-9	1.61E-10	-2.40E-8	5.28E-8
AP	mol H+ eq	3.82E-3	7.83E-4	1.49E-4	4.76E-3	7.74E-5	4.19E-4	3.84E-6	-1.78E-3	3.48E-3
EP-fw	kg P eq	1.59E-5	9.33E-7	6.77E-7	1.75E-5	1.12E-7	2.20E-6	5.04E-9	-6.96E-6	1.29E-5
EP-m	kg N eq	6.30E-4	2.64E-4	2.88E-5	9.23E-4	2.77E-5	1.22E-4	2.48E-6	-3.14E-4	7.60E-4
EP-T	mol N eq	7.21E-3	2.91E-3	3.38E-4	1.05E-2	3.05E-4	1.34E-3	1.56E-5	-3.48E-3	8.64E-3
POCP	kg NMVOC eq	3.26E-3	8.21E-4	7.46E-5	4.16E-3	8.72E-5	4.24E-4	5.84E-6	-1.61E-3	3.07E-3
ADP-mm	kg Sb eq	1.82E-5	2.91E-6	1.31E-6	2.24E-5	3.51E-7	1.65E-6	3.88E-9	-4.18E-6	2.03E-5
ADP-f	MJ	3.71E+1	1.77E+0	4.35E+0	4.32E+1	2.08E-1	1.33E+0	1.17E-2	-2.00E+1	2.48E+1
WDP	m3 depriv.	7.42E-1	5.32E-3	6.92E-2	8.17E-1	6.40E-4	2.60E-2	6.42E-5	-3.45E-1	4.99E-1
PM	disease inc.	3.34E-8	1.02E-8	1.10E-9	4.47E-8	1.23E-9	6.89E-9	8.07E-11	-1.48E-8	3.80E-8
IR	kBq U-235 eq	1.94E-2	7.71E-3	5.15E-2	7.86E-2	9.11E-4	3.99E-3	5.43E-5	-9.27E-3	7.42E-2
ETP-fw	CTUe	5.98E+0	1.42E+0	1.49E+0	8.90E+0	1.69E-1	1.50E+0	9.82E-3	-2.47E+0	8.11E+0
HTP-c	CTUh	2.60E-10	5.17E-11	2.83E-11	3.40E-10	6.02E-12	1.85E-10	2.90E-13	-1.05E-10	4.26E-10
HTP-nc	CTUh	7.06E-9	1.68E-9	9.66E-10	9.70E-9	2.02E-10	2.25E-9	6.34E-12	-2.98E-9	9.18E-9
SQP	Pt	1.50E+0	1.47E+0	1.19E+0	4.16E+0	1.78E-1	1.06E+0	3.01E-2	-5.37E-1	4.89E+0
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	5.50E-1	2.49E-2	6.21E-1	1.20E+0	2.99E-3	6.53E-2	4.52E-4	-2.47E-1	1.02E+0
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	5.50E-1	2.49E-2	6.21E-1	1.20E+0	2.99E-3	6.53E-2	4.52E-4	-2.47E-1	1.02E+0
PENRE	MJ	3.98E+1	1.87E+0	4.36E+0	4.61E+1	2.21E-1	1.41E+0	1.25E-2	-2.16E+1	2.61E+1
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	3.98E+1	1.87E+0	4.36E+0	4.61E+1	2.21E-1	1.41E+0	1.25E-2	-2.16E+1	2.61E+1
PET	MJ	4.04E+1	1.90E+0	4.98E+0	4.73E+1	2.24E-1	1.48E+0	1.29E-2	-2.18E+1	2.72E+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	1.13E-2	1.96E-4	2.29E-3	1.38E-2	2.36E-5	7.66E-4	1.44E-5	-5.16E-3	9.45E-3

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	5.08E-6	4.42E-6	3.57E-8	9.53E-6	5.33E-7	2.16E-6	1.42E-8	-4.72E-6	7.52E-6
NHWD	kg	4.62E-2	1.06E-1	2.02E-4	1.52E-1	1.29E-2	6.56E-2	5.17E-2	-1.53E-2	2.67E-1
RWD	kg	1.68E-5	1.20E-5	4.84E-8	2.88E-5	1.42E-6	5.06E-6	7.65E-8	-8.36E-6	2.70E-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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