

Environmental Profile

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

Ecochain v3.5.80



Product: 3044816 - EK PPR Pipe GY 40x5,5 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	4.83E+0	5.27E-1	7.42E-2	5.43E+0	6.18E-2	1.87E+0	2.91E-2	-2.92E+0	4.47E+0
GWP-f	kg CO2 eq	4.81E+0	5.27E-1	6.03E-2	5.40E+0	6.18E-2	1.87E+0	2.91E-2	-2.91E+0	4.45E+0
GWP-b	kg CO2 eq	1.92E-2	3.03E-4	1.27E-2	3.22E-2	3.75E-5	-2.48E-3	2.53E-5	-1.01E-2	1.97E-2
GWP-luluc	kg CO2 eq	1.33E-3	1.92E-4	1.21E-3	2.73E-3	2.19E-5	3.47E-4	5.01E-7	-5.57E-4	2.54E-3
ODP	kg CFC11 eq	9.10E-8	1.21E-7	7.56E-8	2.87E-7	1.42E-8	4.53E-8	7.31E-10	-1.10E-7	2.37E-7
AP	mol H+ eq	1.74E-2	3.56E-3	6.65E-4	2.17E-2	3.52E-4	1.91E-3	1.75E-5	-8.09E-3	1.58E-2
EP-fw	kg P eq	7.28E-5	4.25E-6	3.02E-6	8.01E-5	5.08E-7	1.00E-5	2.29E-8	-3.17E-5	5.90E-5
EP-m	kg N eq	2.87E-3	1.20E-3	1.28E-4	4.20E-3	1.26E-4	5.56E-4	1.13E-5	-1.43E-3	3.46E-3
EP-T	mol N eq	3.28E-2	1.33E-2	1.51E-3	4.76E-2	1.39E-3	6.12E-3	7.08E-5	-1.59E-2	3.93E-2
POCP	kg NMVOC eq	1.49E-2	3.74E-3	3.32E-4	1.90E-2	3.97E-4	1.93E-3	2.66E-5	-7.31E-3	1.40E-2
ADP-mm	kg Sb eq	8.17E-5	1.32E-5	5.84E-6	1.01E-4	1.60E-6	7.53E-6	1.76E-8	-1.90E-5	9.09E-5
ADP-f	MJ	1.69E+2	8.04E+0	1.94E+1	1.97E+2	9.48E-1	6.03E+0	5.34E-2	-9.12E+1	1.13E+2
WDP	m3 depriv.	3.39E+0	2.42E-2	3.09E-1	3.72E+0	2.91E-3	1.18E-1	2.89E-4	-1.57E+0	2.27E+0
PM	disease inc.	1.52E-7	4.63E-8	4.89E-9	2.03E-7	5.58E-9	3.14E-8	3.67E-10	-6.75E-8	1.73E-7
IR	kBq U-235 eq	8.83E-2	3.51E-2	2.30E-1	3.53E-1	4.15E-3	1.82E-2	2.47E-4	-4.22E-2	3.33E-1
ETP-fw	CTUe	2.72E+1	6.48E+0	6.63E+0	4.03E+1	7.70E-1	6.81E+0	4.47E-2	-1.12E+1	3.67E+1
HTP-c	CTUh	1.18E-9	2.36E-10	1.26E-10	1.54E-9	2.74E-11	8.41E-10	1.32E-12	-4.80E-10	1.93E-9
HTP-nc	CTUh	3.21E-8	7.65E-9	4.31E-9	4.40E-8	9.18E-10	1.02E-8	2.88E-11	-1.36E-8	4.16E-8
SQP	Pt	6.85E+0	6.69E+0	5.29E+0	1.88E+1	8.11E-1	4.82E+0	1.37E-1	-2.45E+0	2.22E+1
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	2.51E+0	1.13E-1	2.77E+0	5.40E+0	1.36E-2	2.97E-1	2.06E-3	-1.13E+0	4.58E+0
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	2.51E+0	1.13E-1	2.77E+0	5.40E+0	1.36E-2	2.97E-1	2.06E-3	-1.13E+0	4.58E+0
PENRE	MJ	1.82E+2	8.53E+0	1.94E+1	2.10E+2	1.01E+0	6.43E+0	5.66E-2	-9.83E+1	1.19E+2
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	1.82E+2	8.53E+0	1.94E+1	2.10E+2	1.01E+0	6.43E+0	5.66E-2	-9.83E+1	1.19E+2
PET	MJ	1.84E+2	8.65E+0	2.22E+1	2.15E+2	1.02E+0	6.72E+0	5.87E-2	-9.94E+1	1.24E+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	5.17E-2	8.92E-4	1.02E-2	6.28E-2	1.07E-4	3.49E-3	6.57E-5	-2.35E-2	4.29E-2

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	2.30E-5	2.01E-5	1.59E-7	4.32E-5	2.43E-6	9.83E-6	6.45E-8	-2.16E-5	3.39E-5
NHWD	kg	2.09E-1	4.82E-1	9.00E-4	6.93E-1	5.88E-2	2.99E-1	2.35E-1	-6.99E-2	1.22E+0
RWD	kg	7.65E-5	5.47E-5	2.16E-7	1.31E-4	6.45E-6	2.30E-5	3.48E-7	-3.81E-5	1.23E-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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