

Environmental Profile

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

Ecochain v3.5.80



Product: 3044800 - EK PPR Pipe GY 40x3,7 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	3.48E+0	3.78E-1	5.31E-2	3.92E+0	4.43E-2	1.36E+0	2.09E-2	-2.10E+0	3.24E+0
GWP-f	kg CO2 eq	3.47E+0	3.77E-1	4.32E-2	3.89E+0	4.42E-2	1.36E+0	2.09E-2	-2.10E+0	3.22E+0
GWP-b	kg CO2 eq	1.31E-2	2.17E-4	9.07E-3	2.24E-2	2.69E-5	-1.77E-3	1.81E-5	-7.21E-3	1.34E-2
GWP-luluc	kg CO2 eq	9.71E-4	1.38E-4	8.68E-4	1.98E-3	1.57E-5	2.49E-4	3.59E-7	-4.00E-4	1.84E-3
ODP	kg CFC11 eq	6.60E-8	8.66E-8	5.42E-8	2.07E-7	1.02E-8	3.25E-8	5.23E-10	-8.04E-8	1.70E-7
AP	mol H+ eq	1.26E-2	2.55E-3	4.76E-4	1.56E-2	2.52E-4	1.37E-3	1.25E-5	-5.81E-3	1.15E-2
EP-fw	kg P eq	5.30E-5	3.04E-6	2.16E-6	5.82E-5	3.64E-7	7.18E-6	1.64E-8	-2.27E-5	4.31E-5
EP-m	kg N eq	2.08E-3	8.60E-4	9.21E-5	3.03E-3	9.02E-5	3.99E-4	8.09E-6	-1.03E-3	2.50E-3
EP-T	mol N eq	2.38E-2	9.49E-3	1.08E-3	3.43E-2	9.94E-4	4.40E-3	5.07E-5	-1.14E-2	2.84E-2
POCP	kg NMVOC eq	1.08E-2	2.68E-3	2.38E-4	1.37E-2	2.84E-4	1.39E-3	1.90E-5	-5.25E-3	1.01E-2
ADP-mm	kg Sb eq	5.88E-5	9.48E-6	4.18E-6	7.25E-5	1.14E-6	5.40E-6	1.26E-8	-1.36E-5	6.54E-5
ADP-f	MJ	1.22E+2	5.76E+0	1.39E+1	1.42E+2	6.79E-1	4.33E+0	3.82E-2	-6.55E+1	8.12E+1
WDP	m3 depriv.	2.45E+0	1.73E-2	2.21E-1	2.68E+0	2.08E-3	8.47E-2	2.08E-4	-1.13E+0	1.65E+0
PM	disease inc.	1.10E-7	3.32E-8	3.50E-9	1.47E-7	3.99E-9	2.25E-8	2.63E-10	-4.84E-8	1.25E-7
IR	kBq U-235 eq	6.40E-2	2.51E-2	1.64E-1	2.54E-1	2.97E-3	1.30E-2	1.77E-4	-3.03E-2	2.39E-1
ETP-fw	CTUe	1.99E+1	4.64E+0	4.75E+0	2.93E+1	5.52E-1	4.89E+0	3.20E-2	-8.06E+0	2.67E+1
HTP-c	CTUh	8.53E-10	1.69E-10	9.03E-11	1.11E-9	1.96E-11	6.05E-10	9.45E-13	-3.45E-10	1.39E-9
HTP-nc	CTUh	2.32E-8	5.48E-9	3.08E-9	3.18E-8	6.58E-10	7.35E-9	2.07E-11	-9.74E-9	3.01E-8
SQP	Pt	5.02E+0	4.79E+0	3.79E+0	1.36E+1	5.81E-1	3.46E+0	9.80E-2	-1.76E+0	1.60E+1
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	1.83E+0	8.11E-2	1.98E+0	3.90E+0	9.74E-3	2.13E-1	1.47E-3	-8.07E-1	3.31E+0
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	1.83E+0	8.11E-2	1.98E+0	3.90E+0	9.74E-3	2.13E-1	1.47E-3	-8.07E-1	3.31E+0
PENRE	MJ	1.31E+2	6.11E+0	1.39E+1	1.51E+2	7.21E-1	4.61E+0	4.06E-2	-7.07E+1	8.57E+1
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	1.31E+2	6.11E+0	1.39E+1	1.51E+2	7.21E-1	4.61E+0	4.06E-2	-7.07E+1	8.57E+1
PET	MJ	1.33E+2	6.19E+0	1.59E+1	1.55E+2	7.31E-1	4.82E+0	4.20E-2	-7.15E+1	8.90E+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	3.75E-2	6.39E-4	7.31E-3	4.54E-2	7.69E-5	2.50E-3	4.71E-5	-1.69E-2	3.12E-2

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	1.66E-5	1.44E-5	1.14E-7	3.11E-5	1.74E-6	7.05E-6	4.62E-8	-1.58E-5	2.42E-5
NHWD	kg	1.52E-1	3.45E-1	6.45E-4	4.98E-1	4.21E-2	2.15E-1	1.68E-1	-5.02E-2	8.74E-1
RWD	kg	5.54E-5	3.92E-5	1.54E-7	9.47E-5	4.62E-6	1.65E-5	2.49E-7	-2.74E-5	8.87E-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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