

Environmental Profile

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

Ecochain v3.5.80



Product: 3044798 - EK PPR Pipe GY 25x2,3 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	1.38E+0	1.52E-1	2.11E-2	1.56E+0	1.76E-2	5.41E-1	8.29E-3	-8.36E-1	1.29E+0
GWP-f	kg CO2 eq	1.38E+0	1.52E-1	1.72E-2	1.55E+0	1.76E-2	5.42E-1	8.29E-3	-8.33E-1	1.28E+0
GWP-b	kg CO2 eq	5.20E-3	9.20E-5	3.61E-3	8.91E-3	1.07E-5	-7.05E-4	7.20E-6	-2.87E-3	5.35E-3
GWP-luluc	kg CO2 eq	3.87E-4	5.36E-5	3.46E-4	7.86E-4	6.22E-6	9.89E-5	1.43E-7	-1.59E-4	7.32E-4
ODP	kg CFC11 eq	2.63E-8	3.49E-8	2.16E-8	8.28E-8	4.05E-9	1.29E-8	2.08E-10	-3.19E-8	6.80E-8
AP	mol H+ eq	5.01E-3	8.63E-4	1.90E-4	6.07E-3	1.00E-4	5.44E-4	4.97E-6	-2.31E-3	4.41E-3
EP-fw	kg P eq	2.11E-5	1.25E-6	8.61E-7	2.32E-5	1.45E-7	2.85E-6	6.52E-9	-9.02E-6	1.72E-5
EP-m	kg N eq	8.27E-4	3.09E-4	3.66E-5	1.17E-3	3.58E-5	1.59E-4	3.22E-6	-4.09E-4	9.62E-4
EP-T	mol N eq	9.45E-3	3.40E-3	4.30E-4	1.33E-2	3.95E-4	1.75E-3	2.02E-5	-4.53E-3	1.09E-2
POCP	kg NMVOC eq	4.28E-3	9.73E-4	9.48E-5	5.35E-3	1.13E-4	5.52E-4	7.56E-6	-2.09E-3	3.94E-3
ADP-mm	kg Sb eq	2.35E-5	3.92E-6	1.66E-6	2.91E-5	4.55E-7	2.15E-6	5.02E-9	-5.42E-6	2.63E-5
ADP-f	MJ	4.85E+1	2.33E+0	5.53E+0	5.63E+1	2.70E-1	1.72E+0	1.52E-2	-2.60E+1	3.23E+1
WDP	m3 depriv.	9.72E-1	7.14E-3	8.80E-2	1.07E+0	8.28E-4	3.37E-2	8.29E-5	-4.47E-1	6.55E-1
PM	disease inc.	4.37E-8	1.37E-8	1.40E-9	5.88E-8	1.59E-9	8.94E-9	1.04E-10	-1.92E-8	5.02E-8
IR	kBq U-235 eq	2.54E-2	1.02E-2	6.55E-2	1.01E-1	1.18E-3	5.18E-3	7.03E-5	-1.20E-2	9.55E-2
ETP-fw	CTUe	7.92E+0	1.89E+0	1.89E+0	1.17E+1	2.19E-1	1.94E+0	1.27E-2	-3.20E+0	1.07E+1
HTP-c	CTUh	3.40E-10	6.72E-11	3.59E-11	4.43E-10	7.80E-12	2.41E-10	3.76E-13	-1.37E-10	5.55E-10
HTP-nc	CTUh	9.24E-9	2.25E-9	1.23E-9	1.27E-8	2.61E-10	2.92E-9	8.21E-12	-3.87E-9	1.20E-8
SQP	Pt	2.00E+0	1.99E+0	1.51E+0	5.50E+0	2.31E-1	1.37E+0	3.90E-2	-6.99E-1	6.44E+0
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	7.28E-1	3.34E-2	7.90E-1	1.55E+0	3.87E-3	8.47E-2	5.85E-4	-3.21E-1	1.32E+0
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	7.28E-1	3.34E-2	7.90E-1	1.55E+0	3.87E-3	8.47E-2	5.85E-4	-3.21E-1	1.32E+0
PENRE	MJ	5.20E+1	2.47E+0	5.54E+0	6.00E+1	2.87E-1	1.83E+0	1.61E-2	-2.81E+1	3.41E+1
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	5.20E+1	2.47E+0	5.54E+0	6.00E+1	2.87E-1	1.83E+0	1.61E-2	-2.81E+1	3.41E+1
PET	MJ	5.27E+1	2.50E+0	6.33E+0	6.16E+1	2.90E-1	1.92E+0	1.67E-2	-2.84E+1	3.54E+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	1.49E-2	2.63E-4	2.91E-3	1.81E-2	3.05E-5	9.95E-4	1.87E-5	-6.70E-3	1.24E-2

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	6.61E-6	5.95E-6	4.54E-8	1.26E-5	6.90E-7	2.80E-6	1.84E-8	-6.27E-6	9.85E-6
NHWD	kg	6.07E-2	1.44E-1	2.57E-4	2.05E-1	1.67E-2	8.56E-2	6.69E-2	-1.99E-2	3.54E-1
RWD	kg	2.20E-5	1.58E-5	6.15E-8	3.79E-5	1.84E-6	6.57E-6	9.91E-8	-1.09E-5	3.55E-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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