

# Environmental Profile

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

Ecochain v3.5.80



Product: 3044805 - EK PPR Pipe GY 25x4,2 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



This LCA was evaluated according to EN15804+A2. It was concluded that the LCA complies with this standard.

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.

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	☑	☑	☑	☑									

## Product stage

A1 Raw material supply A2 Transport A3 Manufacturing

## Construction process stage

A4 Transport gate to site  
 A5 Assembly / Construction installation process

## Use stage

B1 Use B2 Maintenance B3 Repair B4 Replacement B5 Refurbishment  
 B6 Operational energy use B7 Operational water use

## End-of-Life stage

C1 De-construction demolition C2 Transport C3 Waste processing  
 C4 Disposal

## Benefits and loads beyond the system boundaries

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	1.68E+0	1.85E-1	2.57E-2	1.89E+0	2.15E-2	6.54E-1	1.01E-2	-1.02E+0	1.56E+0
GWP-f	kg CO2 eq	1.67E+0	1.85E-1	2.09E-2	1.88E+0	2.15E-2	6.55E-1	1.01E-2	-1.01E+0	1.55E+0
GWP-b	kg CO2 eq	6.55E-3	1.12E-4	4.39E-3	1.11E-2	1.30E-5	-8.60E-4	8.79E-6	-3.50E-3	6.72E-3
GWP-luluc	kg CO2 eq	4.65E-4	6.54E-5	4.20E-4	9.51E-4	7.59E-6	1.21E-4	1.74E-7	-1.93E-4	8.86E-4
ODP	kg CFC11 eq	3.19E-8	4.26E-8	2.62E-8	1.01E-7	4.94E-9	1.57E-8	2.54E-10	-3.85E-8	8.31E-8
AP	mol H+ eq	6.08E-3	1.05E-3	2.31E-4	7.36E-3	1.22E-4	6.63E-4	6.06E-6	-2.81E-3	5.34E-3
EP-fw	kg P eq	2.55E-5	1.52E-6	1.05E-6	2.80E-5	1.77E-7	3.48E-6	7.96E-9	-1.10E-5	2.07E-5
EP-m	kg N eq	1.00E-3	3.77E-4	4.46E-5	1.42E-3	4.37E-5	1.93E-4	3.92E-6	-4.98E-4	1.17E-3
EP-T	mol N eq	1.15E-2	4.15E-3	5.23E-4	1.61E-2	4.82E-4	2.13E-3	2.46E-5	-5.51E-3	1.33E-2
POCP	kg NMVOC eq	5.19E-3	1.19E-3	1.15E-4	6.50E-3	1.38E-4	6.72E-4	9.23E-6	-2.54E-3	4.77E-3
ADP-mm	kg Sb eq	2.86E-5	4.78E-6	2.03E-6	3.54E-5	5.55E-7	2.62E-6	6.13E-9	-6.60E-6	3.19E-5
ADP-f	MJ	5.89E+1	2.84E+0	6.73E+0	6.85E+1	3.29E-1	2.10E+0	1.85E-2	-3.17E+1	3.92E+1
WDP	m3 depriv.	1.18E+0	8.71E-3	1.07E-1	1.30E+0	1.01E-3	4.11E-2	1.01E-4	-5.45E-1	7.93E-1
PM	disease inc.	5.30E-8	1.67E-8	1.70E-9	7.14E-8	1.94E-9	1.09E-8	1.27E-10	-2.34E-8	6.09E-8
IR	kBq U-235 eq	3.08E-2	1.24E-2	7.96E-2	1.23E-1	1.44E-3	6.32E-3	8.58E-5	-1.47E-2	1.16E-1
ETP-fw	CTUe	9.56E+0	2.30E+0	2.30E+0	1.42E+1	2.67E-1	2.37E+0	1.55E-2	-3.90E+0	1.29E+1
HTP-c	CTUh	4.12E-10	8.20E-11	4.37E-11	5.38E-10	9.52E-12	2.93E-10	4.59E-13	-1.67E-10	6.74E-10
HTP-nc	CTUh	1.12E-8	2.75E-9	1.49E-9	1.54E-8	3.19E-10	3.56E-9	1.00E-11	-4.72E-9	1.46E-8
SQP	Pt	2.40E+0	2.43E+0	1.84E+0	6.67E+0	2.82E-1	1.67E+0	4.75E-2	-8.50E-1	7.82E+0
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	8.79E-1	4.07E-2	9.60E-1	1.88E+0	4.72E-3	1.03E-1	7.13E-4	-3.91E-1	1.60E+0
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	8.79E-1	4.07E-2	9.60E-1	1.88E+0	4.72E-3	1.03E-1	7.13E-4	-3.91E-1	1.60E+0
PENRE	MJ	6.32E+1	3.01E+0	6.74E+0	7.30E+1	3.50E-1	2.23E+0	1.97E-2	-3.42E+1	4.14E+1
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	6.32E+1	3.01E+0	6.74E+0	7.30E+1	3.50E-1	2.23E+0	1.97E-2	-3.42E+1	4.14E+1
PET	MJ	6.41E+1	3.05E+0	7.70E+0	7.49E+1	3.54E-1	2.34E+0	2.04E-2	-3.46E+1	4.30E+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	1.80E-2	3.21E-4	3.54E-3	2.19E-2	3.73E-5	1.21E-3	2.28E-5	-8.16E-3	1.50E-2

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	8.02E-6	7.26E-6	5.53E-8	1.53E-5	8.42E-7	3.42E-6	2.24E-8	-7.57E-6	1.20E-5
NHWD	kg	7.33E-2	1.76E-1	3.12E-4	2.50E-1	2.04E-2	1.04E-1	8.16E-2	-2.43E-2	4.31E-1
RWD	kg	2.67E-5	1.93E-5	7.48E-8	4.61E-5	2.24E-6	8.01E-6	1.21E-7	-1.32E-5	4.32E-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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