

Environmental Profile

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

Ecochain v3.5.80



Product: 3044815 - EK PPR Pipe GY 32x4,4 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	3.10E+0	3.40E-1	4.77E-2	3.49E+0	3.98E-2	1.20E+0	1.87E-2	-1.88E+0	2.88E+0
GWP-f	kg CO2 eq	3.09E+0	3.39E-1	3.88E-2	3.47E+0	3.98E-2	1.20E+0	1.87E-2	-1.87E+0	2.86E+0
GWP-b	kg CO2 eq	1.25E-2	1.95E-4	8.15E-3	2.08E-2	2.42E-5	-1.59E-3	1.63E-5	-6.48E-3	1.28E-2
GWP-luluc	kg CO2 eq	8.51E-4	1.24E-4	7.80E-4	1.75E-3	1.41E-5	2.24E-4	3.23E-7	-3.58E-4	1.63E-3
ODP	kg CFC11 eq	5.86E-8	7.78E-8	4.86E-8	1.85E-7	9.17E-9	2.91E-8	4.70E-10	-7.07E-8	1.53E-7
AP	mol H+ eq	1.12E-2	2.29E-3	4.28E-4	1.39E-2	2.27E-4	1.23E-3	1.12E-5	-5.21E-3	1.02E-2
EP-fw	kg P eq	4.68E-5	2.73E-6	1.94E-6	5.14E-5	3.27E-7	6.45E-6	1.48E-8	-2.04E-5	3.79E-5
EP-m	kg N eq	1.85E-3	7.73E-4	8.27E-5	2.70E-3	8.11E-5	3.57E-4	7.28E-6	-9.22E-4	2.23E-3
EP-T	mol N eq	2.11E-2	8.53E-3	9.69E-4	3.06E-2	8.93E-4	3.93E-3	4.56E-5	-1.02E-2	2.53E-2
POCP	kg NMVOC eq	9.58E-3	2.41E-3	2.14E-4	1.22E-2	2.55E-4	1.24E-3	1.71E-5	-4.71E-3	9.01E-3
ADP-mm	kg Sb eq	5.27E-5	8.52E-6	3.76E-6	6.50E-5	1.03E-6	4.85E-6	1.14E-8	-1.22E-5	5.86E-5
ADP-f	MJ	1.09E+2	5.17E+0	1.25E+1	1.27E+2	6.11E-1	3.88E+0	3.44E-2	-5.87E+1	7.24E+1
WDP	m3 depriv.	2.18E+0	1.56E-2	1.99E-1	2.39E+0	1.87E-3	7.61E-2	1.87E-4	-1.01E+0	1.46E+0
PM	disease inc.	9.78E-8	2.98E-8	3.15E-9	1.31E-7	3.59E-9	2.02E-8	2.36E-10	-4.34E-8	1.11E-7
IR	kBq U-235 eq	5.68E-2	2.26E-2	1.48E-1	2.27E-1	2.67E-3	1.17E-2	1.59E-4	-2.72E-2	2.14E-1
ETP-fw	CTUe	1.75E+1	4.17E+0	4.27E+0	2.60E+1	4.96E-1	4.39E+0	2.88E-2	-7.22E+0	2.36E+1
HTP-c	CTUh	7.59E-10	1.52E-10	8.11E-11	9.92E-10	1.76E-11	5.41E-10	8.50E-13	-3.09E-10	1.24E-9
HTP-nc	CTUh	2.06E-8	4.93E-9	2.77E-9	2.83E-8	5.91E-10	6.58E-9	1.86E-11	-8.74E-9	2.68E-8
SQP	Pt	4.40E+0	4.30E+0	3.41E+0	1.21E+1	5.22E-1	3.10E+0	8.81E-2	-1.57E+0	1.42E+1
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	1.61E+0	7.28E-2	1.78E+0	3.47E+0	8.76E-3	1.91E-1	1.32E-3	-7.25E-1	2.95E+0
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	1.61E+0	7.28E-2	1.78E+0	3.47E+0	8.76E-3	1.91E-1	1.32E-3	-7.25E-1	2.95E+0
PENRE	MJ	1.17E+2	5.49E+0	1.25E+1	1.35E+2	6.48E-1	4.14E+0	3.65E-2	-6.32E+1	7.65E+1
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	1.17E+2	5.49E+0	1.25E+1	1.35E+2	6.48E-1	4.14E+0	3.65E-2	-6.32E+1	7.65E+1
PET	MJ	1.18E+2	5.56E+0	1.43E+1	1.38E+2	6.57E-1	4.33E+0	3.78E-2	-6.40E+1	7.94E+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	3.32E-2	5.74E-4	6.57E-3	4.04E-2	6.91E-5	2.24E-3	4.23E-5	-1.51E-2	2.76E-2

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	1.48E-5	1.29E-5	1.02E-7	2.78E-5	1.56E-6	6.33E-6	4.15E-8	-1.39E-5	2.19E-5
NHWD	kg	1.35E-1	3.10E-1	5.79E-4	4.46E-1	3.78E-2	1.92E-1	1.51E-1	-4.50E-2	7.82E-1
RWD	kg	4.92E-5	3.52E-5	1.39E-7	8.45E-5	4.15E-6	1.48E-5	2.24E-7	-2.45E-5	7.92E-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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