

Environmental Profile

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

Ecochain v3.5.80



Product: 3044793 - EK PPR Pipe GY 20x2,2 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	1.02E+0	1.11E-1	1.38E-2	1.14E+0	1.30E-2	3.96E-1	6.13E-3	-6.15E-1	9.42E-1
GWP-f	kg CO2 eq	1.01E+0	1.11E-1	1.12E-2	1.14E+0	1.30E-2	3.97E-1	6.13E-3	-6.13E-1	9.38E-1
GWP-b	kg CO2 eq	3.96E-3	6.37E-5	2.36E-3	6.38E-3	7.90E-6	-5.21E-4	5.33E-6	-2.12E-3	3.75E-3
GWP-luluc	kg CO2 eq	2.80E-4	4.04E-5	2.25E-4	5.46E-4	4.60E-6	7.31E-5	1.06E-7	-1.17E-4	5.07E-4
ODP	kg CFC11 eq	1.92E-8	2.54E-8	1.41E-8	5.87E-8	3.00E-9	9.53E-9	1.54E-10	-2.34E-8	4.80E-8
AP	mol H+ eq	3.67E-3	7.50E-4	1.24E-4	4.55E-3	7.41E-5	4.02E-4	3.67E-6	-1.70E-3	3.32E-3
EP-fw	kg P eq	1.54E-5	8.94E-7	5.62E-7	1.68E-5	1.07E-7	2.11E-6	4.82E-9	-6.67E-6	1.24E-5
EP-m	kg N eq	6.06E-4	2.53E-4	2.39E-5	8.83E-4	2.65E-5	1.17E-4	2.38E-6	-3.02E-4	7.27E-4
EP-T	mol N eq	6.90E-3	2.79E-3	2.80E-4	9.97E-3	2.92E-4	1.29E-3	1.49E-5	-3.34E-3	8.23E-3
POCP	kg NMVOC eq	3.14E-3	7.86E-4	6.19E-5	3.99E-3	8.35E-5	4.07E-4	5.59E-6	-1.54E-3	2.95E-3
ADP-mm	kg Sb eq	1.65E-5	2.79E-6	1.09E-6	2.04E-5	3.36E-7	1.59E-6	3.71E-9	-4.00E-6	1.83E-5
ADP-f	MJ	3.57E+1	1.69E+0	3.61E+0	4.10E+1	2.00E-1	1.27E+0	1.12E-2	-1.92E+1	2.33E+1
WDP	m3 depriv.	7.15E-1	5.09E-3	5.74E-2	7.77E-1	6.13E-4	2.49E-2	6.10E-5	-3.30E-1	4.72E-1
PM	disease inc.	3.20E-8	9.75E-9	9.10E-10	4.27E-8	1.17E-9	6.60E-9	7.72E-11	-1.42E-8	3.63E-8
IR	kBq U-235 eq	1.86E-2	7.39E-3	4.27E-2	6.87E-2	8.72E-4	3.83E-3	5.20E-5	-8.89E-3	6.46E-2
ETP-fw	CTUe	5.74E+0	1.36E+0	1.23E+0	8.33E+0	1.62E-1	1.44E+0	9.40E-3	-2.36E+0	7.57E+0
HTP-c	CTUh	2.45E-10	4.96E-11	2.35E-11	3.18E-10	5.77E-12	1.77E-10	2.78E-13	-1.01E-10	4.01E-10
HTP-nc	CTUh	6.73E-9	1.61E-9	8.01E-10	9.14E-9	1.93E-10	2.16E-9	6.07E-12	-2.86E-9	8.63E-9
SQP	Pt	1.42E+0	1.41E+0	9.85E-1	3.81E+0	1.71E-1	1.01E+0	2.88E-2	-5.15E-1	4.51E+0
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	5.31E-1	2.38E-2	5.15E-1	1.07E+0	2.86E-3	6.26E-2	4.33E-4	-2.37E-1	8.99E-1
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	5.31E-1	2.38E-2	5.15E-1	1.07E+0	2.86E-3	6.26E-2	4.33E-4	-2.37E-1	8.99E-1
PENRE	MJ	3.83E+1	1.80E+0	3.62E+0	4.37E+1	2.12E-1	1.35E+0	1.19E-2	-2.07E+1	2.46E+1
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	3.83E+1	1.80E+0	3.62E+0	4.37E+1	2.12E-1	1.35E+0	1.19E-2	-2.07E+1	2.46E+1
PET	MJ	3.89E+1	1.82E+0	4.13E+0	4.48E+1	2.15E-1	1.42E+0	1.24E-2	-2.10E+1	2.55E+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	1.09E-2	1.88E-4	1.90E-3	1.30E-2	2.26E-5	7.35E-4	1.38E-5	-4.95E-3	8.83E-3

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	4.72E-6	4.23E-6	2.96E-8	8.98E-6	5.10E-7	2.07E-6	1.36E-8	-4.59E-6	6.99E-6
NHWD	kg	4.32E-2	1.02E-1	1.68E-4	1.45E-1	1.24E-2	6.31E-2	4.95E-2	-1.47E-2	2.55E-1
RWD	kg	1.61E-5	1.15E-5	4.01E-8	2.77E-5	1.36E-6	4.85E-6	7.33E-8	-8.02E-6	2.59E-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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