

Environmental Profile

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

Ecochain v3.5.80



Product: 3024099 - PP-R Pipe GN 50x8,3 PN20 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	7.53E+0	8.25E-1	1.25E-1	8.48E+0	9.63E-2	2.91E+0	4.54E-2	-4.54E+0	6.99E+0
GWP-f	kg CO2 eq	7.50E+0	8.25E-1	1.01E-1	8.42E+0	9.62E-2	2.91E+0	4.54E-2	-4.53E+0	6.95E+0
GWP-b	kg CO2 eq	3.03E-2	5.01E-4	2.13E-2	5.21E-2	5.84E-5	-3.86E-3	3.94E-5	-1.57E-2	3.26E-2
GWP-luluc	kg CO2 eq	2.07E-3	2.92E-4	2.04E-3	4.40E-3	3.41E-5	5.41E-4	7.81E-7	-8.67E-4	4.11E-3
ODP	kg CFC11 eq	1.42E-7	1.90E-7	1.27E-7	4.60E-7	2.22E-8	7.05E-8	1.14E-9	-1.71E-7	3.82E-7
AP	mol H+ eq	2.72E-2	4.70E-3	1.12E-3	3.30E-2	5.48E-4	2.97E-3	2.72E-5	-1.26E-2	2.40E-2
EP-fw	kg P eq	1.14E-4	6.79E-6	5.07E-6	1.26E-4	7.92E-7	1.56E-5	3.57E-8	-4.93E-5	9.27E-5
EP-m	kg N eq	4.49E-3	1.68E-3	2.16E-4	6.39E-3	1.96E-4	8.65E-4	1.76E-5	-2.23E-3	5.23E-3
EP-T	mol N eq	5.15E-2	1.85E-2	2.53E-3	7.25E-2	2.16E-3	9.52E-3	1.10E-4	-2.47E-2	5.96E-2
POCP	kg NMVOC eq	2.32E-2	5.30E-3	5.59E-4	2.91E-2	6.18E-4	3.01E-3	4.14E-5	-1.14E-2	2.14E-2
ADP-mm	kg Sb eq	1.34E-4	2.13E-5	9.81E-6	1.65E-4	2.49E-6	1.17E-5	2.75E-8	-2.96E-5	1.50E-4
ADP-f	MJ	2.64E+2	1.27E+1	3.26E+1	3.09E+2	1.48E+0	9.40E+0	8.31E-2	-1.42E+2	1.78E+2
WDP	m3 depriv.	5.28E+0	3.89E-2	5.19E-1	5.83E+0	4.53E-3	1.84E-1	4.50E-4	-2.44E+0	3.58E+0
PM	disease inc.	2.38E-7	7.45E-8	8.22E-9	3.21E-7	8.69E-9	4.88E-8	5.72E-10	-1.05E-7	2.74E-7
IR	kBq U-235 eq	1.38E-1	5.53E-2	3.86E-1	5.79E-1	6.46E-3	2.83E-2	3.85E-4	-6.57E-2	5.48E-1
ETP-fw	CTUe	4.27E+1	1.03E+1	1.11E+1	6.42E+1	1.20E+0	1.06E+1	6.96E-2	-1.75E+1	5.86E+1
HTP-c	CTUh	1.88E-9	3.66E-10	2.12E-10	2.45E-9	4.27E-11	1.31E-9	2.05E-12	-7.48E-10	3.06E-9
HTP-nc	CTUh	5.04E-8	1.23E-8	7.24E-9	6.99E-8	1.43E-9	1.59E-8	4.49E-11	-2.11E-8	6.62E-8
SQP	Pt	1.10E+1	1.08E+1	8.90E+0	3.08E+1	1.26E+0	7.51E+0	2.13E-1	-3.81E+0	3.59E+1
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	3.92E+0	1.82E-1	4.65E+0	8.76E+0	2.12E-2	4.63E-1	3.20E-3	-1.75E+0	7.49E+0
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	3.92E+0	1.82E-1	4.65E+0	8.76E+0	2.12E-2	4.63E-1	3.20E-3	-1.75E+0	7.49E+0
PENRE	MJ	2.83E+2	1.34E+1	3.27E+1	3.29E+2	1.57E+0	1.00E+1	8.82E-2	-1.53E+2	1.88E+2
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	2.83E+2	1.34E+1	3.27E+1	3.29E+2	1.57E+0	1.00E+1	8.82E-2	-1.53E+2	1.88E+2
PET	MJ	2.87E+2	1.36E+1	3.73E+1	3.38E+2	1.59E+0	1.05E+1	9.14E-2	-1.55E+2	1.95E+2
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	8.05E-2	1.43E-3	1.72E-2	9.91E-2	1.67E-4	5.43E-3	1.02E-4	-3.66E-2	6.82E-2

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	3.71E-5	3.24E-5	2.68E-7	6.97E-5	3.78E-6	1.53E-5	1.00E-7	-3.37E-5	5.52E-5
NHWD	kg	3.38E-1	7.85E-1	1.51E-3	1.12E+0	9.16E-2	4.66E-1	3.66E-1	-1.09E-1	1.94E+0
RWD	kg	1.19E-4	8.61E-5	3.62E-7	2.06E-4	1.00E-5	3.59E-5	5.42E-7	-5.93E-5	1.93E-4
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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