

Environmental Profile

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

Ecochain v3.5.80



Product: 3023639 - PP-R Pipe GN 32x5,4 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	3.63E+0	3.96E-1	5.60E-2	4.08E+0	4.67E-2	1.40E+0	2.20E-2	-2.19E+0	3.36E+0
GWP-f	kg CO2 eq	3.62E+0	3.95E-1	4.55E-2	4.06E+0	4.66E-2	1.40E+0	2.20E-2	-2.19E+0	3.34E+0
GWP-b	kg CO2 eq	1.49E-2	2.27E-4	9.56E-3	2.47E-2	2.83E-5	-1.87E-3	1.91E-5	-7.59E-3	1.53E-2
GWP-luluc	kg CO2 eq	9.90E-4	1.44E-4	9.14E-4	2.05E-3	1.65E-5	2.62E-4	3.79E-7	-4.20E-4	1.91E-3
ODP	kg CFC11 eq	6.84E-8	9.06E-8	5.71E-8	2.16E-7	1.07E-8	3.41E-8	5.52E-10	-8.24E-8	1.79E-7
AP	mol H+ eq	1.31E-2	2.68E-3	5.02E-4	1.63E-2	2.66E-4	1.44E-3	1.32E-5	-6.10E-3	1.19E-2
EP-fw	kg P eq	5.45E-5	3.18E-6	2.28E-6	6.00E-5	3.84E-7	7.56E-6	1.73E-8	-2.39E-5	4.41E-5
EP-m	kg N eq	2.16E-3	9.02E-4	9.70E-5	3.16E-3	9.51E-5	4.19E-4	8.53E-6	-1.08E-3	2.60E-3
EP-T	mol N eq	2.47E-2	9.95E-3	1.14E-3	3.58E-2	1.05E-3	4.61E-3	5.35E-5	-1.19E-2	2.95E-2
POCP	kg NMVOC eq	1.12E-2	2.80E-3	2.51E-4	1.42E-2	2.99E-4	1.46E-3	2.01E-5	-5.51E-3	1.05E-2
ADP-mm	kg Sb eq	6.16E-5	9.93E-6	4.41E-6	7.60E-5	1.21E-6	5.68E-6	1.33E-8	-1.44E-5	6.85E-5
ADP-f	MJ	1.27E+2	6.03E+0	1.46E+1	1.48E+2	7.16E-1	4.55E+0	4.03E-2	-6.87E+1	8.47E+1
WDP	m3 depriv.	2.55E+0	1.81E-2	2.33E-1	2.80E+0	2.20E-3	8.92E-2	2.19E-4	-1.18E+0	1.70E+0
PM	disease inc.	1.14E-7	3.47E-8	3.69E-9	1.53E-7	4.21E-9	2.36E-8	2.77E-10	-5.09E-8	1.30E-7
IR	kBq U-235 eq	6.63E-2	2.63E-2	1.73E-1	2.66E-1	3.13E-3	1.37E-2	1.87E-4	-3.18E-2	2.51E-1
ETP-fw	CTUe	2.04E+1	4.86E+0	5.01E+0	3.03E+1	5.81E-1	5.14E+0	3.37E-2	-8.46E+0	2.76E+1
HTP-c	CTUh	8.87E-10	1.77E-10	9.51E-11	1.16E-9	2.07E-11	6.33E-10	9.96E-13	-3.62E-10	1.45E-9
HTP-nc	CTUh	2.41E-8	5.74E-9	3.25E-9	3.31E-8	6.93E-10	7.71E-9	2.18E-11	-1.02E-8	3.13E-8
SQP	Pt	5.11E+0	5.01E+0	4.00E+0	1.41E+1	6.13E-1	3.64E+0	1.03E-1	-1.84E+0	1.66E+1
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	1.88E+0	8.49E-2	2.09E+0	4.06E+0	1.03E-2	2.24E-1	1.55E-3	-8.49E-1	3.44E+0
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	1.88E+0	8.49E-2	2.09E+0	4.06E+0	1.03E-2	2.24E-1	1.55E-3	-8.49E-1	3.44E+0
PENRE	MJ	1.37E+2	6.40E+0	1.47E+1	1.58E+2	7.60E-1	4.85E+0	4.28E-2	-7.40E+1	8.95E+1
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	1.37E+2	6.40E+0	1.47E+1	1.58E+2	7.60E-1	4.85E+0	4.28E-2	-7.40E+1	8.95E+1
PET	MJ	1.39E+2	6.48E+0	1.68E+1	1.62E+2	7.70E-1	5.07E+0	4.43E-2	-7.49E+1	9.29E+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	3.88E-2	6.69E-4	7.70E-3	4.72E-2	8.10E-5	2.63E-3	4.96E-5	-1.77E-2	3.22E-2

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	1.73E-5	1.51E-5	1.20E-7	3.25E-5	1.83E-6	7.42E-6	4.87E-8	-1.62E-5	2.56E-5
NHWD	kg	1.57E-1	3.62E-1	6.80E-4	5.19E-1	4.44E-2	2.25E-1	1.77E-1	-5.27E-2	9.14E-1
RWD	kg	5.75E-5	4.10E-5	1.63E-7	9.86E-5	4.87E-6	1.74E-5	2.63E-7	-2.87E-5	9.25E-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



Ecochain Technologies BV
H.J.E. Wenckebachweg 123, 1096 AM Amsterdam, The Netherlands
<https://www.ecochain.com>
+31 20 3035 777