

Environmental Profile

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

Ecochain v3.5.80



Product: 3024098 - PP-R Pipe GN 40x6,7 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

This document and supporting material contain confidential and proprietary business information of Wavin - CZ - Horni Pocernice . These materials may be printed or (photo) copied or otherwise used only with the written consent of Wavin - CZ - Horni Pocernice .

Results

Environmental impact	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
GWP-total	kg CO2 eq	5.43E+0	5.91E-1	8.65E-2	6.11E+0	6.97E-2	2.10E+0	3.28E-2	-3.28E+0	5.03E+0
GWP-f	kg CO2 eq	5.41E+0	5.91E-1	7.03E-2	6.07E+0	6.97E-2	2.10E+0	3.28E-2	-3.27E+0	5.01E+0
GWP-b	kg CO2 eq	2.20E-2	3.39E-4	1.48E-2	3.71E-2	4.23E-5	-2.79E-3	2.86E-5	-1.13E-2	2.31E-2
GWP-luluc	kg CO2 eq	1.49E-3	2.15E-4	1.41E-3	3.12E-3	2.47E-5	3.92E-4	5.65E-7	-6.28E-4	2.91E-3
ODP	kg CFC11 eq	1.02E-7	1.35E-7	8.82E-8	3.26E-7	1.61E-8	5.10E-8	8.24E-10	-1.24E-7	2.70E-7
AP	mol H+ eq	1.96E-2	4.00E-3	7.76E-4	2.44E-2	3.97E-4	2.15E-3	1.97E-5	-9.12E-3	1.78E-2
EP-fw	kg P eq	8.18E-5	4.76E-6	3.52E-6	9.01E-5	5.73E-7	1.13E-5	2.58E-8	-3.57E-5	6.63E-5
EP-m	kg N eq	3.23E-3	1.35E-3	1.50E-4	4.73E-3	1.42E-4	6.26E-4	1.27E-5	-1.61E-3	3.90E-3
EP-T	mol N eq	3.70E-2	1.49E-2	1.76E-3	5.36E-2	1.56E-3	6.89E-3	7.99E-5	-1.79E-2	4.43E-2
POCP	kg NMVOC eq	1.68E-2	4.19E-3	3.88E-4	2.13E-2	4.47E-4	2.18E-3	3.00E-5	-8.24E-3	1.58E-2
ADP-mm	kg Sb eq	9.31E-5	1.48E-5	6.81E-6	1.15E-4	1.80E-6	8.49E-6	1.99E-8	-2.14E-5	1.04E-4
ADP-f	MJ	1.91E+2	9.01E+0	2.26E+1	2.22E+2	1.07E+0	6.80E+0	6.02E-2	-1.03E+2	1.28E+2
WDP	m3 depriv.	3.81E+0	2.71E-2	3.60E-1	4.20E+0	3.28E-3	1.33E-1	3.26E-4	-1.77E+0	2.57E+0
PM	disease inc.	1.71E-7	5.19E-8	5.71E-9	2.29E-7	6.29E-9	3.53E-8	4.14E-10	-7.61E-8	1.95E-7
IR	kBq U-235 eq	9.93E-2	3.94E-2	2.68E-1	4.07E-1	4.67E-3	2.05E-2	2.79E-4	-4.76E-2	3.84E-1
ETP-fw	CTUe	3.06E+1	7.26E+0	7.74E+0	4.56E+1	8.68E-1	7.68E+0	5.04E-2	-1.27E+1	4.16E+1
HTP-c	CTUh	1.33E-9	2.64E-10	1.47E-10	1.74E-9	3.09E-11	9.47E-10	1.49E-12	-5.41E-10	2.18E-9
HTP-nc	CTUh	3.62E-8	8.58E-9	5.02E-9	4.98E-8	1.04E-9	1.15E-8	3.25E-11	-1.53E-8	4.70E-8
SQP	Pt	7.74E+0	7.49E+0	6.18E+0	2.14E+1	9.15E-1	5.43E+0	1.54E-1	-2.75E+0	2.52E+1
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	2.82E+0	1.27E-1	3.23E+0	6.18E+0	1.53E-2	3.35E-1	2.32E-3	-1.27E+0	5.26E+0
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	2.82E+0	1.27E-1	3.23E+0	6.18E+0	1.53E-2	3.35E-1	2.32E-3	-1.27E+0	5.26E+0
PENRE	MJ	2.05E+2	9.56E+0	2.27E+1	2.37E+2	1.14E+0	7.25E+0	6.39E-2	-1.11E+2	1.35E+2
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	2.05E+2	9.56E+0	2.27E+1	2.37E+2	1.14E+0	7.25E+0	6.39E-2	-1.11E+2	1.35E+2
PET	MJ	2.08E+2	9.69E+0	2.59E+1	2.43E+2	1.15E+0	7.58E+0	6.62E-2	-1.12E+2	1.40E+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	5.81E-2	1.00E-3	1.19E-2	7.10E-2	1.21E-4	3.93E-3	7.41E-5	-2.65E-2	4.86E-2

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	2.60E-5	2.25E-5	1.86E-7	4.88E-5	2.74E-6	1.11E-5	7.27E-8	-2.43E-5	3.84E-5
NHWD	kg	2.37E-1	5.40E-1	1.05E-3	7.79E-1	6.63E-2	3.37E-1	2.65E-1	-7.88E-2	1.37E+0
RWD	kg	8.61E-5	6.13E-5	2.52E-7	1.48E-4	7.27E-6	2.60E-5	3.93E-7	-4.29E-5	1.38E-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



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