

Environmental Profile

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

Ecochain v3.5.80



Product: 3059376 - PP-R Pipe GN 20x3,4 PN20 L=4 Wood.Crate
 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



This LCA was evaluated according to EN15804+A2. It was concluded that the LCA complies with this standard.

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.

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

A1 Raw material supply A2 Transport A3 Manufacturing

Construction process stage

A4 Transport gate to site
 A5 Assembly / Construction installation process

Use stage

B1 Use B2 Maintenance B3 Repair B4 Replacement B5 Refurbishment
 B6 Operational energy use B7 Operational water use

End-of-Life stage

C1 De-construction demolition C2 Transport C3 Waste processing
 C4 Disposal

Benefits and loads beyond the system boundaries

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	1.28E+0	1.54E-1	2.22E-2	1.46E+0	1.81E-2	6.96E-1	8.53E-3	-8.72E-1	1.31E+0
GWP-f	kg CO2 eq	1.43E+0	1.54E-1	1.80E-2	1.60E+0	1.81E-2	5.46E-1	8.54E-3	-8.69E-1	1.30E+0
GWP-b	kg CO2 eq	-1.45E-1	8.83E-5	3.79E-3	-1.41E-1	1.10E-5	1.50E-1	7.42E-6	-2.95E-3	5.99E-3
GWP-luluc	kg CO2 eq	4.66E-4	5.60E-5	3.62E-4	8.84E-4	6.41E-6	1.02E-4	1.47E-7	-2.35E-4	7.58E-4
ODP	kg CFC11 eq	2.94E-8	3.52E-8	2.26E-8	8.73E-8	4.17E-9	1.34E-8	2.14E-10	-3.44E-8	7.07E-8
AP	mol H+ eq	5.24E-3	1.04E-3	1.99E-4	6.48E-3	1.03E-4	5.64E-4	5.12E-6	-2.50E-3	4.65E-3
EP-fw	kg P eq	2.23E-5	1.24E-6	9.03E-7	2.44E-5	1.49E-7	2.95E-6	6.72E-9	-1.02E-5	1.73E-5
EP-m	kg N eq	8.80E-4	3.50E-4	3.84E-5	1.27E-3	3.69E-5	1.65E-4	3.31E-6	-4.56E-4	1.02E-3
EP-T	mol N eq	1.01E-2	3.87E-3	4.51E-4	1.44E-2	4.07E-4	1.82E-3	2.08E-5	-5.07E-3	1.15E-2
POCP	kg NMVOC eq	4.53E-3	1.09E-3	9.95E-5	5.72E-3	1.16E-4	5.73E-4	7.79E-6	-2.29E-3	4.12E-3
ADP-mm	kg Sb eq	2.45E-5	3.86E-6	1.75E-6	3.01E-5	4.69E-7	2.22E-6	5.17E-9	-5.92E-6	2.69E-5
ADP-f	MJ	4.99E+1	2.34E+0	5.80E+0	5.81E+1	2.78E-1	1.78E+0	1.56E-2	-2.70E+1	3.31E+1
WDP	m3 depriv.	9.96E-1	7.06E-3	9.23E-2	1.10E+0	8.53E-4	3.47E-2	8.50E-5	-4.65E-1	6.66E-1
PM	disease inc.	4.76E-8	1.35E-8	1.46E-9	6.26E-8	1.63E-9	9.26E-9	1.08E-10	-2.25E-8	5.11E-8
IR	kBq U-235 eq	2.69E-2	1.02E-2	6.87E-2	1.06E-1	1.22E-3	5.38E-3	7.24E-5	-1.33E-2	9.92E-2
ETP-fw	CTUe	8.52E+0	1.89E+0	1.98E+0	1.24E+1	2.26E-1	2.01E+0	1.31E-2	-3.87E+0	1.08E+1
HTP-c	CTUh	4.12E-10	6.87E-11	3.77E-11	5.18E-10	8.03E-12	2.48E-10	3.87E-13	-1.95E-10	5.80E-10
HTP-nc	CTUh	9.89E-9	2.23E-9	1.29E-9	1.34E-8	2.69E-10	3.01E-9	8.46E-12	-4.43E-9	1.23E-8
SQP	Pt	1.46E+1	1.95E+0	1.58E+0	1.81E+1	2.38E-1	1.42E+0	4.01E-2	-1.13E+1	8.54E+0
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	2.56E+0	3.30E-2	8.28E-1	3.42E+0	3.99E-3	8.75E-2	6.02E-4	-1.92E+0	1.60E+0
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	2.56E+0	3.30E-2	8.28E-1	3.42E+0	3.99E-3	8.75E-2	6.02E-4	-1.92E+0	1.60E+0
PENRE	MJ	5.36E+1	2.49E+0	5.81E+0	6.19E+1	2.95E-1	1.90E+0	1.66E-2	-2.91E+1	3.50E+1
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	5.36E+1	2.49E+0	5.81E+0	6.19E+1	2.95E-1	1.90E+0	1.66E-2	-2.91E+1	3.50E+1
PET	MJ	5.61E+1	2.52E+0	6.64E+0	6.53E+1	2.99E-1	1.98E+0	1.72E-2	-3.10E+1	3.66E+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	1.53E-2	2.60E-4	3.05E-3	1.86E-2	3.15E-5	1.03E-3	1.93E-5	-7.05E-3	1.26E-2

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	7.74E-6	5.86E-6	4.76E-8	1.37E-5	7.11E-7	2.91E-6	1.89E-8	-7.11E-6	1.02E-5
NHWD	kg	6.85E-2	1.41E-1	2.69E-4	2.09E-1	1.72E-2	8.82E-2	6.89E-2	-2.63E-2	3.57E-1
RWD	kg	2.37E-5	1.60E-5	6.45E-8	3.97E-5	1.89E-6	6.83E-6	1.02E-7	-1.23E-5	3.63E-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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