

Environmental Profile

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

Ecochain v3.5.80



Product: 3079609 - EK PP-RCT ELBOW 90° GN 90
 Unit: 1 piece
 Manufacturer: Wavin - CZ - Kostelec - Verified

LCA standard: NMD Bepalingsmethode 1.1 (2022)
 Standard database: Worldwide - Ecoinvent v 3.6 Cut-Off
 Externally verified: Yes
 Issue date: 27-01-2023
 End of validity: 27-01-2028
 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 - Kostelec - Verified (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

ECI = Environmental Costs Indicator [euro]; **ADPE** = Abiotic depletion potential for non-fossil resources [kg Sb-eq]; **ADPF** = Abiotic depletion potential for fossil resources [kg Sb-eq]; **GWP** = Global warming potential [kg CO2-eq]; **ODP** = Depletion potential of the stratospheric ozone layer [kg CFC-11-eq]; **POCP** = Formation potential of tropospheric ozone photochemical oxidants [kg ethene-eq]; **AP** = Acidification potential of land and water [kg SO2-eq]; **EP** = Eutrophication potential [kg PO4 3--eq]; **HTP** = Human toxicity potential [kg 1,4-DB-eq]; **FAETP** = Freshwater aquatic ecotoxicity potential [kg 1,4-DB-eq]; **MAETP** = Marine aquatic ecotoxicity potential [kg 1,4-DB-eq]; **TETP** = Terrestrial ecotoxicity potential [kg 1,4-DB-eq]; **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 SBK set 1	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
ECI	euro	0.11	0.01	0.02	0.14	0	0.04	0	-0.06	0.13
ADPE	kg Sb-eq	1.98E-5	1.85E-6	8.04E-6	2.97E-5	4.13E-7	2.03E-6	4.57E-9	-5.17E-6	2.70E-5
ADPF	kg Sb-eq	2.17E-2	5.21E-4	6.07E-4	2.28E-2	1.16E-4	7.77E-4	6.37E-6	-1.18E-2	1.20E-2
GWP	kg CO2-eq	1.26E+0	7.09E-2	1.10E-1	1.45E+0	1.58E-2	5.25E-1	6.43E-3	-7.69E-1	1.22E+0
ODP	kg CFC-11-eq	2.99E-8	1.32E-8	1.87E-7	2.30E-7	2.94E-9	1.04E-8	1.52E-10	-3.18E-8	2.12E-7
POCP	kg ethene-eq	1.06E-3	4.26E-5	7.90E-5	1.18E-3	9.51E-6	7.83E-5	1.46E-6	-4.99E-4	7.70E-4
AP	kg SO2-eq	4.02E-3	3.05E-4	7.52E-4	5.08E-3	6.82E-5	3.99E-4	3.36E-6	-1.88E-3	3.67E-3
EP	kg PO4 3--eq	3.91E-4	6.09E-5	9.67E-5	5.49E-4	1.36E-5	7.11E-5	1.46E-6	-1.97E-4	4.38E-4
HTP	kg 1,4-DB-eq	2.07E-1	3.03E-2	1.33E-1	3.70E-1	6.78E-3	1.58E-1	5.03E-4	-9.65E-2	4.39E-1
FAETP	kg 1,4-DB-eq	5.91E-3	8.88E-4	4.80E-3	1.16E-2	1.99E-4	3.71E-3	5.45E-4	-2.68E-3	1.34E-2
MAETP	kg 1,4-DB-eq	1.39E+1	3.17E+0	1.33E+1	3.05E+1	7.09E-1	8.39E+0	5.44E-1	-5.89E+0	3.42E+1
TETP	kg 1,4-DB-eq	9.45E-4	1.07E-4	6.93E-3	7.98E-3	2.40E-5	4.83E-4	8.21E-7	-6.72E-4	7.82E-3
Environmental impact	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
GWP-total	kg CO2 eq	1.32E+0	7.15E-2	1.30E-1	1.52E+0	1.60E-2	5.42E-1	7.53E-3	-7.64E-1	1.33E+0
GWP-f	kg CO2 eq	1.32E+0	7.15E-2	1.05E-1	1.49E+0	1.60E-2	5.27E-1	7.53E-3	-7.96E-1	1.25E+0
GWP-b	kg CO2 eq	4.24E-3	4.34E-5	2.34E-2	2.77E-2	9.70E-6	1.47E-2	6.55E-6	3.25E-2	7.48E-2
GWP-luluc	kg CO2 eq	5.73E-4	2.53E-5	1.64E-3	2.24E-3	5.65E-6	9.11E-5	1.30E-7	-3.89E-4	1.95E-3
ODP	kg CFC11 eq	2.89E-8	1.65E-8	1.04E-7	1.50E-7	3.68E-9	1.23E-8	1.89E-10	-3.36E-8	1.32E-7
AP	mol H+ eq	4.86E-3	4.07E-4	9.51E-4	6.22E-3	9.10E-5	5.16E-4	4.51E-6	-2.28E-3	4.55E-3
EP-fw	kg P eq	2.24E-5	5.88E-7	3.46E-6	2.64E-5	1.31E-7	2.64E-6	5.93E-9	-1.13E-5	1.79E-5
EP-m	kg N eq	8.37E-4	1.46E-4	1.76E-4	1.16E-3	3.26E-5	1.53E-4	2.92E-6	-4.15E-4	9.32E-4
EP-T	mol N eq	9.38E-3	1.61E-3	2.18E-3	1.32E-2	3.59E-4	1.68E-3	1.83E-5	-4.61E-3	1.06E-2
POCP	kg NMVOC eq	4.14E-3	4.59E-4	5.06E-4	5.11E-3	1.03E-4	5.29E-4	6.87E-6	-2.02E-3	3.72E-3
ADP-mm	kg Sb eq	1.98E-5	1.85E-6	8.04E-6	2.97E-5	4.13E-7	2.03E-6	4.57E-9	-5.17E-6	2.70E-5
ADP-f	MJ	4.55E+1	1.10E+0	2.64E+1	7.30E+1	2.45E-1	1.60E+0	1.38E-2	-2.43E+1	5.05E+1
WDP	m3 depriv.	9.22E-1	3.37E-3	4.62E-1	1.39E+0	7.53E-4	3.10E-2	7.56E-5	-4.58E-1	9.60E-1
PM	disease inc.	4.34E-8	6.45E-9	7.85E-9	5.77E-8	1.44E-9	8.43E-9	9.49E-11	-2.08E-8	4.68E-8
IR	kBq U-235 eq	2.55E-2	4.80E-3	3.10E-1	3.40E-1	1.07E-3	4.87E-3	6.39E-5	-1.32E-2	3.33E-1
ETP-fw	CTUe	1.19E+1	8.91E-1	8.86E+0	2.17E+1	1.99E-1	1.84E+0	1.16E-2	-5.59E+0	1.81E+1
HTP-c	CTUh	3.24E-10	3.17E-11	1.92E-10	5.48E-10	7.09E-12	2.28E-10	3.42E-13	-1.46E-10	6.37E-10
HTP-nc	CTUh	9.02E-9	1.06E-9	6.05E-9	1.61E-8	2.37E-10	2.74E-9	7.46E-12	-4.23E-9	1.49E-8
SQP	Pt	3.25E+0	9.39E-1	7.24E+0	1.14E+1	2.10E-1	1.27E+0	3.54E-2	-6.93E+0	6.02E+0

Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	9.92E-1	1.57E-2	3.74E+0	4.74E+0	3.52E-3	7.81E-2	5.31E-4	-1.43E+0	3.39E+0
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	9.92E-1	1.57E-2	3.74E+0	4.74E+0	3.52E-3	7.81E-2	5.31E-4	-1.43E+0	3.39E+0
PENRE	MJ	4.88E+1	1.16E+0	2.65E+1	7.65E+1	2.60E-1	1.70E+0	1.46E-2	-2.62E+1	5.22E+1
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	4.88E+1	1.16E+0	2.65E+1	7.65E+1	2.60E-1	1.70E+0	1.46E-2	-2.62E+1	5.22E+1
PET	MJ	4.98E+1	1.18E+0	3.03E+1	8.12E+1	2.64E-1	1.78E+0	1.52E-2	-2.77E+1	5.56E+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	1.46E-2	1.24E-4	1.48E-2	2.95E-2	2.78E-5	9.24E-4	1.70E-5	-7.43E-3	2.31E-2
Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	6.42E-6	2.81E-6	5.20E-7	9.74E-6	6.27E-7	2.65E-6	1.67E-8	-6.53E-6	6.51E-6
NHWD	kg	6.01E-2	6.80E-2	1.48E-2	1.43E-1	1.52E-2	8.08E-2	6.08E-2	-2.10E-2	2.79E-1
RWD	kg	2.23E-5	7.46E-6	7.79E-7	3.05E-5	1.67E-6	6.20E-6	9.00E-8	-1.21E-5	2.64E-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