Environmental Profile

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

Ecochain v3.5.80

Product:	3079558 - EK PP-RCT Weld-in saddle Plast GY 110x32
Unit:	1 piece
Manufacturer:	Wavin - CZ - Kostelec - Verified

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.

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

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

Results

Environmental impact SBK set 1	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
ECI	euro	0.01	0	0	0.01	0	0	0	-0	0.01
ADPE	kg Sb-eq	1.37E-6	1.48E-7	5.19E-7	2.04E-6	2.79E-8	1.34E-7	3.09E-10	-3.36E-7	1.87E-6
ADPF	kg Sb-eq	1.52E-3	4.16E-5	3.96E-5	1.60E-3	7.86E-6	5.20E-5	4.31E-7	-8.13E-4	8.45E-4
GWP	kg CO2-eq	8.83E-2	5.66E-3	7.14E-3	1.01E-1	1.07E-3	3.94E-2	4.34E-4	-5.34E-2	8.87E-2
ODP	kg CFC-11-eq	1.95E-9	1.05E-9	1.21E-8	1.51E-8	1.99E-10	6.85E-10	1.03E-11	-2.22E-9	1.37E-8
POCP	kg ethene-eq	7.57E-5	3.40E-6	5.12E-6	8.42E-5	6.42E-7	5.21E-6	9.89E-8	-3.33E-5	5.69E-5
AP	kg SO2-eq	2.83E-4	2.44E-5	4.86E-5	3.56E-4	4.61E-6	2.67E-5	2.27E-7	-1.21E-4	2.67E-4
EP	kg PO4 3−-eq	2.62E-5	4.87E-6	6.27E-6	3.74E-5	9.20E-7	4.75E-6	9.88E-8	-1.13E-5	3.19E-5
HTP	kg 1,4-DB-eq	1.46E-2	2.42E-3	8.64E-3	2.56E-2	4.58E-4	1.07E-2	3.40E-5	-6.05E-3	3.08E-2
FAETP	kg 1,4-DB-eq	3.54E-4	7.10E-5	3.12E-4	7.36E-4	1.34E-5	2.71E-4	3.67E-5	-1.20E-4	9.37E-4
MAETP	kg 1,4-DB-eq	9.96E-1	2.53E-1	8.64E-1	2.11E+0	4.79E-2	5.91E-1	3.66E-2	-3.64E-1	2.43E+0
TETP	kg 1,4-DB-eq	6.12E-5	8.58E-6	4.47E-4	5.17E-4	1.62E-6	3.25E-5	5.56E-8	-2.46E-5	5.26E-4
Environmental impact	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
GWP-total	kg CO2 eq	9.23E-2	5.71E-3	8.44E-3	1.06E-1	1.08E-3	3.96E-2	5.09E-4	-5.53E-2	9.24E-2
GWP-f	kg CO2 eq	9.21E-2	5.71E-3	6.81E-3	1.05E-1	1.08E-3	3.96E-2	5.09E-4	-5.52E-2	9.06E-2
GWP-b	kg CO2 eq	1.27E-4	3.47E-6	1.53E-3	1.66E-3	6.55E-7	2.57E-5	4.42E-7	-2.08E-5	1.66E-3
GWP-luluc	kg CO2 eq	3.04E-5	2.02E-6	1.06E-4	1.38E-4	3.82E-7	6.13E-6	8.80E-9	-1.10E-5	1.34E-4
ODP	kg CFC11 eq	1.86E-9	1.32E-9	6.74E-9	9.92E-9	2.49E-10	8.11E-10	1.28E-11	-2.38E-9	8.61E-9
AP	mol H+ eq	3.41E-4	3.25E-5	6.14E-5	4.35E-4	6.15E-6	3.45E-5	3.05E-7	-1.46E-4	3.30E-4
EP-fw	kg P eq	1.54E-6	4.70E-8	2.24E-7	1.81E-6	8.88E-9	1.77E-7	4.02E-10	-5.76E-7	1.42E-6
EP-m	kg N eq	5.69E-5	1.16E-5	1.14E-5	8.00E-5	2.20E-6	1.02E-5	1.97E-7	-2.63E-5	6.63E-5
EP-T	mol N eq	6.44E-4	1.28E-4	1.41E-4	9.14E-4	2.42E-5	1.12E-4	1.24E-6	-2.91E-4	7.60E-4
POCP	kg NMVOC eq	2.92E-4	3.67E-5	3.28E-5	3.62E-4	6.93E-6	3.53E-5	4.64E-7	-1.33E-4	2.72E-4
ADP-mm	kg Sb eq	1.37E-6	1.48E-7	5.19E-7	2.04E-6	2.79E-8	1.34E-7	3.09E-10	-3.36E-7	1.87E-6
ADP-f	MJ	3.17E+0	8.76E-2	1.71E+0	4.96E+0	1.66E-2	1.07E-1	9.33E-4	-1.67E+0	3.42E+0
WDP	m3 depriv.	6.53E-2	2.69E-4	2.99E-2	9.54E-2	5.08E-5	2.09E-3	5.23E-6	-2.80E-2	6.96E-2
PM	disease inc.	2.95E-9	5.15E-10	5.10E-10	3.97E-9	9.74E-11	5.61E-10	6.41E-12	-1.21E-9	3.43E-9
IR	kBq U-235 eq	1.77E-3	3.83E-4	2.00E-2	2.21E-2	7.24E-5	3.23E-4	4.32E-6	-7.73E-4	2.17E-2
ETP-fw	CTUe	6.02E-1	7.12E-2	5.72E-1	1.25E+0	1.35E-2	1.22E-1	7.81E-4	-2.14E-1	1.17E+0
HTP-c	CTUh	2.24E-11	2.53E-12	1.24E-11	3.74E-11	4.79E-13	1.57E-11	2.32E-14	-8.81E-12	4.47E-11
HTP-nc	CTUh	6.22E-10	8.48E-11	3.91E-10	1.10E-9	1.60E-11	1.87E-10	5.05E-13	-2.45E-10	1.06E-9
SQP	Pt	1.52E-1	7.50E-2	4.67E-1	6.94E-1	1.42E-2	8.54E-2	2.39E-3	-7.31E-2	7.23E-1

Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	5.42E-2	1.26E-3	2.41E-1	2.96E-1	2.38E-4	5.25E-3	3.58E-5	-2.51E-2	2.77E-1
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	5.42E-2	1.26E-3	2.41E-1	2.96E-1	2.38E-4	5.25E-3	3.58E-5	-2.51E-2	2.77E-1
PENRE	MJ	3.40E+0	9.30E-2	1.71E+0	5.20E+0	1.76E-2	1.14E-1	9.90E-4	-1.80E+0	3.53E+0
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	3.40E+0	9.30E-2	1.71E+0	5.20E+0	1.76E-2	1.14E-1	9.90E-4	-1.80E+0	3.53E+0
PET	MJ	3.46E+0	9.43E-2	1.95E+0	5.50E+0	1.78E-2	1.19E-1	1.03E-3	-1.83E+0	3.81E+0
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	1.05E-3	9.92E-6	9.59E-4	2.02E-3	1.87E-6	6.26E-5	1.15E-6	-4.23E-4	1.66E-3
Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	4.20E-7	2.24E-7	3.48E-8	6.79E-7	4.24E-8	1.76E-7	1.13E-9	-4.65E-7	4.33E-7
NHWD	kg	4.08E-3	5.43E-3	9.91E-4	1.05E-2	1.03E-3	5.59E-3	4.10E-3	-1.27E-3	2.00E-2
RWD	kg	1.52E-6	5.96E-7	5.20E-8	2.17E-6	1.13E-7	4.10E-7	6.08E-9	-7.07E-7	1.99E-6
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