Environmental Profile

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

Ecochain v3.5.80

Product:	3084331 - EK PP-RCT End cap GY 50
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	-0.01	0.01
ADPE	kg Sb-eq	2.15E-6	1.97E-7	7.97E-7	3.14E-6	4.15E-8	1.98E-7	4.61E-10	-4.98E-7	2.88E-6
ADPF	kg Sb-eq	2.18E-3	5.53E-5	5.98E-5	2.30E-3	1.17E-5	7.69E-5	6.42E-7	-1.19E-3	1.20E-3
GWP	kg CO2-eq	1.27E-1	7.53E-3	1.08E-2	1.45E-1	1.59E-3	5.49E-2	6.46E-4	-7.69E-2	1.26E-1
ODP	kg CFC-11-eq	2.86E-9	1.40E-9	1.86E-8	2.28E-8	2.95E-10	1.01E-9	1.53E-11	-3.08E-9	2.11E-8
POCP	kg ethene-eq	1.08E-4	4.52E-6	7.81E-6	1.20E-4	9.56E-7	7.66E-6	1.47E-7	-4.90E-5	7.96E-5
AP	kg SO2-eq	4.09E-4	3.24E-5	7.45E-5	5.16E-4	6.85E-6	3.92E-5	3.39E-7	-1.78E-4	3.84E-4
EP	kg PO4 3−-eq	3.78E-5	6.48E-6	9.57E-6	5.39E-5	1.37E-6	6.96E-6	1.47E-7	-1.64E-5	4.59E-5
HTP	kg 1,4-DB-eq	2.09E-2	3.22E-3	1.31E-2	3.72E-2	6.81E-4	1.58E-2	5.04E-5	-8.84E-3	4.49E-2
FAETP	kg 1,4-DB-eq	5.29E-4	9.44E-5	4.74E-4	1.10E-3	2.00E-5	3.81E-4	5.43E-5	-1.75E-4	1.38E-3
MAETP	kg 1,4-DB-eq	1.44E+0	3.37E-1	1.32E+0	3.10E+0	7.13E-2	8.38E-1	5.42E-2	-5.34E-1	3.53E+0
TETP	kg 1,4-DB-eq	8.71E-5	1.14E-5	6.87E-4	7.86E-4	2.41E-6	4.83E-5	8.31E-8	-3.56E-5	8.01E-4
Environmental impact	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
GWP-total	kg CO2 eq	1.33E-1	7.60E-3	1.28E-2	1.53E-1	1.61E-3	5.51E-2	7.56E-4	-7.97E-2	1.31E-1
GWP-f	kg CO2 eq	1.33E-1	7.60E-3	1.03E-2	1.50E-1	1.61E-3	5.51E-2	7.56E-4	-7.96E-2	1.28E-1
GWP-b	kg CO2 eq	3.00E-4	4.61E-6	2.30E-3	2.61E-3	9.75E-7	1.56E-5	6.56E-7	-8.11E-5	2.54E-3
GWP-luluc	kg CO2 eq	4.22E-5	2.69E-6	1.63E-4	2.08E-4	5.68E-7	9.08E-6	1.32E-8	-1.60E-5	2.01E-4
ODP	kg CFC11 eq	2.74E-9	1.75E-9	1.04E-8	1.48E-8	3.70E-10	1.20E-9	1.90E-11	-3.28E-9	1.32E-8
AP	mol H+ eq	4.92E-4	4.33E-5	9.41E-5	6.29E-4	9.15E-6	5.07E-5	4.55E-7	-2.14E-4	4.75E-4
EP-fw	kg P eq	2.17E-6	6.25E-8	3.42E-7	2.57E-6	1.32E-8	2.62E-7	6.02E-10	-8.48E-7	2.00E-6
EP-m	kg N eq	8.14E-5	1.55E-5	1.74E-5	1.14E-4	3.27E-6	1.49E-5	2.92E-7	-3.84E-5	9.43E-5
EP-T	mol N eq	9.26E-4	1.71E-4	2.16E-4	1.31E-3	3.61E-5	1.64E-4	1.84E-6	-4.25E-4	1.09E-3
POCP	kg NMVOC eq	4.17E-4	4.88E-5	5.00E-5	5.16E-4	1.03E-5	5.17E-5	6.91E-7	-1.95E-4	3.84E-4
ADP-mm	kg Sb eq	2.15E-6	1.96E-7	7.97E-7	3.14E-6	4.15E-8	1.98E-7	4.61E-10	-4.98E-7	2.88E-6
ADP-f	MJ	4.57E+0	1.17E-1	2.62E+0	7.31E+0	2.46E-2	1.58E-1	1.39E-3	-2.44E+0	5.05E+0
WDP	m3 depriv.	9.39E-2	3.58E-4	4.57E-2	1.40E-1	7.56E-5	3.09E-3	8.27E-6	-4.14E-2	1.02E-1
PM	disease inc.	4.26E-9	6.86E-10	7.76E-10	5.72E-9	1.45E-10	8.27E-10	9.55E-12	-1.78E-9	4.92E-9
IR	kBq U-235 eq	2.52E-3	5.10E-4	3.07E-2	3.37E-2	1.08E-4	4.78E-4	6.42E-6	-1.13E-3	3.32E-2
ETP-fw	CTUe	8.57E-1	9.47E-2	8.78E-1	1.83E+0	2.00E-2	1.80E-1	1.16E-3	-3.11E-1	1.72E+0
HTP-c	CTUh	3.28E-11	3.37E-12	1.90E-11	5.52E-11	7.12E-13	2.31E-11	3.49E-14	-1.29E-11	6.61E-11
HTP-nc	CTUh	9.08E-10	1.13E-10	5.99E-10	1.62E-9	2.39E-11	2.74E-10	7.54E-13	-3.61E-10	1.56E-9
SQP	Pt	2.10E-1	9.98E-2	7.18E-1	1.03E+0	2.11E-2	1.26E-1	3.56E-3	-9.82E-2	1.08E+0

Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	7.55E-2	1.67E-3	3.71E-1	4.48E-1	3.54E-4	7.78E-3	5.31E-5	-3.55E-2	4.20E-1
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	7.55E-2	1.67E-3	3.71E-1	4.48E-1	3.54E-4	7.78E-3	5.31E-5	-3.55E-2	4.20E-1
PENRE	MJ	4.90E+0	1.24E-1	2.63E+0	7.66E+0	2.62E-2	1.69E-1	1.47E-3	-2.63E+0	5.22E+0
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	4.90E+0	1.24E-1	2.63E+0	7.66E+0	2.62E-2	1.69E-1	1.47E-3	-2.63E+0	5.22E+0
PET	MJ	4.98E+0	1.25E-1	3.00E+0	8.10E+0	2.65E-2	1.76E-1	1.53E-3	-2.67E+0	5.64E+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	1.49E-3	1.32E-5	1.47E-3	2.97E-3	2.79E-6	9.22E-5	1.71E-6	-6.24E-4	2.44E-3
Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	6.25E-7	2.98E-7	5.05E-8	9.73E-7	6.30E-8	2.60E-7	1.68E-9	-6.42E-7	6.56E-7
NHWD	kg	5.91E-3	7.23E-3	1.44E-3	1.46E-2	1.53E-3	8.12E-3	6.11E-3	-1.86E-3	2.85E-2
RWD	kg	2.18E-6	7.93E-7	7.56E-8	3.05E-6	1.68E-7	6.06E-7	9.05E-9	-1.03E-6	2.80E-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