Environmental Profile

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

Ecochain v3.5.80

Product:	3082318 - EK PP-RCT SOCKET GN 63
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	0.02	0	0	0.03	0	0.01	0	-0.01	0.03
ADPE	kg Sb-eq	4.20E-6	3.98E-7	1.69E-6	6.29E-6	8.72E-8	4.27E-7	9.64E-10	-1.09E-6	5.71E-6
ADPF	kg Sb-eq	4.51E-3	1.12E-4	1.27E-4	4.75E-3	2.45E-5	1.63E-4	1.34E-6	-2.46E-3	2.48E-3
GWP	kg CO2-eq	2.62E-1	1.53E-2	2.30E-2	3.00E-1	3.34E-3	1.07E-1	1.36E-3	-1.60E-1	2.52E-1
ODP	kg CFC-11-eq	6.20E-9	2.83E-9	3.93E-8	4.83E-8	6.20E-10	2.18E-9	3.21E-11	-6.46E-9	4.47E-8
POCP	kg ethene-eq	2.18E-4	9.16E-6	1.66E-5	2.44E-4	2.01E-6	1.64E-5	3.09E-7	-1.05E-4	1.58E-4
AP	kg SO2-eq	8.33E-4	6.57E-5	1.58E-4	1.06E-3	1.44E-5	8.36E-5	7.09E-7	-3.95E-4	7.60E-4
EP	kg PO4 3−-eq	8.07E-5	1.31E-5	2.03E-5	1.14E-4	2.87E-6	1.49E-5	3.08E-7	-4.11E-5	9.10E-5
HTP	kg 1,4-DB-eq	4.25E-2	6.53E-3	2.79E-2	7.69E-2	1.43E-3	3.32E-2	1.06E-4	-2.01E-2	9.16E-2
FAETP	kg 1,4-DB-eq	1.23E-3	1.91E-4	1.01E-3	2.42E-3	4.19E-5	7.59E-4	1.15E-4	-5.56E-4	2.78E-3
MAETP	kg 1,4-DB-eq	2.87E+0	6.83E-1	2.80E+0	6.35E+0	1.50E-1	1.73E+0	1.14E-1	-1.23E+0	7.11E+0
TETP	kg 1,4-DB-eq	1.94E-4	2.31E-5	1.45E-3	1.67E-3	5.07E-6	1.02E-4	1.73E-7	-1.39E-4	1.64E-3
Environmental impact	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
GWP-total	kg CO2 eq	2.74E-1	1.54E-2	2.72E-2	3.17E-1	3.37E-3	1.10E-1	1.59E-3	-1.59E-1	2.73E-1
GWP-f	kg CO2 eq	2.73E-1	1.54E-2	2.19E-2	3.11E-1	3.37E-3	1.07E-1	1.59E-3	-1.65E-1	2.57E-1
GWP-b	kg CO2 eq	1.01E-3	9.35E-6	4.90E-3	5.91E-3	2.05E-6	2.98E-3	1.38E-6	6.59E-3	1.55E-2
GWP-luluc	kg CO2 eq	1.16E-4	5.45E-6	3.45E-4	4.66E-4	1.19E-6	1.92E-5	2.75E-8	-8.02E-5	4.06E-4
ODP	kg CFC11 eq	5.99E-9	3.55E-9	2.19E-8	3.15E-8	7.76E-10	2.58E-9	3.99E-11	-6.81E-9	2.80E-8
AP	mol H+ eq	1.01E-3	8.77E-5	1.99E-4	1.29E-3	1.92E-5	1.08E-4	9.52E-7	-4.77E-4	9.44E-4
EP-fw	kg P eq	4.56E-6	1.27E-7	7.25E-7	5.42E-6	2.77E-8	5.55E-7	1.25E-9	-2.35E-6	3.65E-6
EP-m	kg N eq	1.72E-4	3.14E-5	3.70E-5	2.41E-4	6.87E-6	3.19E-5	6.16E-7	-8.66E-5	1.94E-4
EP-T	mol N eq	1.94E-3	3.46E-4	4.57E-4	2.74E-3	7.57E-5	3.51E-4	3.86E-6	-9.62E-4	2.21E-3
POCP	kg NMVOC eq	8.55E-4	9.88E-5	1.06E-4	1.06E-3	2.16E-5	1.11E-4	1.45E-6	-4.24E-4	7.70E-4
ADP-mm	kg Sb eq	4.20E-6	3.98E-7	1.69E-6	6.28E-6	8.72E-8	4.26E-7	9.64E-10	-1.09E-6	5.71E-6
ADP-f	MJ	9.44E+0	2.36E-1	5.55E+0	1.52E+1	5.17E-2	3.36E-1	2.91E-3	-5.09E+0	1.05E+1
WDP	m3 depriv.	1.91E-1	7.25E-4	9.68E-2	2.89E-1	1.59E-4	6.51E-3	1.62E-5	-9.61E-2	1.99E-1
PM	disease inc.	8.97E-9	1.39E-9	1.65E-9	1.20E-8	3.04E-10	1.77E-9	2.00E-11	-4.36E-9	9.74E-9
IR	kBq U-235 eq	5.26E-3	1.03E-3	6.50E-2	7.13E-2	2.26E-4	1.02E-3	1.35E-5	-2.76E-3	6.98E-2
ETP-fw	CTUe	2.44E+0	1.92E-1	1.86E+0	4.49E+0	4.20E-2	3.86E-1	2.44E-3	-1.16E+0	3.76E+0
HTP-c	CTUh	6.73E-11	6.83E-12	4.02E-11	1.14E-10	1.49E-12	4.76E-11	7.23E-14	-3.05E-11	1.33E-10
HTP-nc	CTUh	1.87E-9	2.29E-10	1.27E-9	3.37E-9	5.01E-11	5.74E-10	1.58E-12	-8.84E-10	3.11E-9
SQP	Pt	6.58E-1	2.02E-1	1.52E+0	2.38E+0	4.42E-2	2.67E-1	7.46E-3	-1.41E+0	1.29E+0

Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	2.02E-1	3.39E-3	7.84E-1	9.90E-1	7.42E-4	1.64E-2	1.12E-4	-2.94E-1	7.14E-1
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	2.02E-1	3.39E-3	7.84E-1	9.90E-1	7.42E-4	1.64E-2	1.12E-4	-2.94E-1	7.14E-1
PENRE	MJ	1.01E+1	2.51E-1	5.57E+0	1.60E+1	5.49E-2	3.58E-1	3.09E-3	-5.48E+0	1.09E+1
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	1.01E+1	2.51E-1	5.57E+0	1.60E+1	5.49E-2	3.58E-1	3.09E-3	-5.48E+0	1.09E+1
PET	MJ	1.03E+1	2.54E-1	6.35E+0	1.69E+1	5.57E-2	3.75E-1	3.20E-3	-5.78E+0	1.16E+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	3.00E-3	2.67E-5	3.11E-3	6.14E-3	5.85E-6	1.94E-4	3.58E-6	-1.55E-3	4.79E-3
Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	1.34E-6	6.04E-7	1.08E-7	2.05E-6	1.32E-7	5.56E-7	3.52E-9	-1.32E-6	1.42E-6
NHWD	kg	1.23E-2	1.46E-2	3.09E-3	3.01E-2	3.21E-3	1.68E-2	1.28E-2	-4.39E-3	5.85E-2
RWD	kg	4.60E-6	1.61E-6	1.62E-7	6.37E-6	3.52E-7	1.30E-6	1.90E-8	-2.52E-6	5.52E-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

Ecochain

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