Environmental Profile

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

Ecochain v3.5.80

Product:	3079518 - EK PP-RCT SOCKET GY 75
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	0.03	0	0.01	0.04	0	0.01	0	-0.02	0.04
ADPE	kg Sb-eq	6.03E-6	5.72E-7	2.29E-6	8.89E-6	1.19E-7	5.89E-7	1.32E-9	-1.49E-6	8.12E-6
ADPF	kg Sb-eq	6.67E-3	1.61E-4	1.76E-4	7.01E-3	3.35E-5	2.26E-4	1.84E-6	-3.55E-3	3.72E-3
GWP	kg CO2-eq	3.94E-1	2.20E-2	3.17E-2	4.48E-1	4.57E-3	1.78E-1	1.85E-3	-2.38E-1	3.94E-1
ODP	kg CFC-11-eq	9.39E-9	4.07E-9	5.33E-8	6.67E-8	8.47E-10	3.03E-9	4.39E-11	-1.06E-8	6.01E-8
POCP	kg ethene-eq	3.37E-4	1.32E-5	2.27E-5	3.73E-4	2.74E-6	2.30E-5	4.22E-7	-1.46E-4	2.53E-4
AP	kg SO2-eq	1.27E-3	9.45E-5	2.15E-4	1.58E-3	1.97E-5	1.18E-4	9.69E-7	-5.48E-4	1.17E-3
EP	kg PO4 3−-eq	1.24E-4	1.89E-5	2.77E-5	1.71E-4	3.93E-6	2.11E-5	4.22E-7	-5.67E-5	1.39E-4
HTP	kg 1,4-DB-eq	6.70E-2	9.39E-3	3.83E-2	1.15E-1	1.95E-3	4.65E-2	1.45E-4	-2.83E-2	1.35E-1
FAETP	kg 1,4-DB-eq	1.84E-3	2.75E-4	1.38E-3	3.49E-3	5.73E-5	1.22E-3	1.57E-4	-7.36E-4	4.19E-3
MAETP	kg 1,4-DB-eq	4.63E+0	9.82E-1	3.82E+0	9.43E+0	2.05E-1	2.69E+0	1.57E-1	-1.71E+0	1.08E+1
TETP	kg 1,4-DB-eq	3.03E-4	3.33E-5	1.97E-3	2.31E-3	6.93E-6	1.40E-4	2.37E-7	-1.81E-4	2.27E-3
Environmental impact	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
GWP-total	kg CO2 eq	4.11E-1	2.21E-2	3.75E-2	4.71E-1	4.61E-3	1.82E-1	2.17E-3	-2.38E-1	4.21E-1
GWP-f	kg CO2 eq	4.11E-1	2.21E-2	3.02E-2	4.63E-1	4.61E-3	1.78E-1	2.17E-3	-2.46E-1	4.03E-1
GWP-b	kg CO2 eq	3.96E-4	1.34E-5	6.78E-3	7.19E-3	2.80E-6	3.49E-3	1.89E-6	7.64E-3	1.83E-2
GWP-luluc	kg CO2 eq	1.81E-4	7.83E-6	4.67E-4	6.55E-4	1.63E-6	2.64E-5	3.75E-8	-1.01E-4	5.82E-4
ODP	kg CFC11 eq	9.11E-9	5.10E-9	2.98E-8	4.40E-8	1.06E-9	3.59E-9	5.45E-11	-1.13E-8	3.74E-8
AP	mol H+ eq	1.54E-3	1.26E-4	2.71E-4	1.93E-3	2.62E-5	1.52E-4	1.30E-6	-6.63E-4	1.45E-3
EP-fw	kg P eq	7.37E-6	1.82E-7	9.91E-7	8.54E-6	3.79E-8	7.66E-7	1.71E-9	-3.14E-6	6.21E-6
EP-m	kg N eq	2.64E-4	4.51E-5	5.06E-5	3.60E-4	9.39E-6	4.55E-5	8.42E-7	-1.22E-4	2.94E-4
EP-T	mol N eq	2.97E-3	4.97E-4	6.23E-4	4.09E-3	1.03E-4	5.01E-4	5.28E-6	-1.35E-3	3.34E-3
POCP	kg NMVOC eq	1.32E-3	1.42E-4	1.45E-4	1.60E-3	2.96E-5	1.57E-4	1.98E-6	-5.95E-4	1.20E-3
ADP-mm	kg Sb eq	6.03E-6	5.72E-7	2.29E-6	8.89E-6	1.19E-7	5.89E-7	1.32E-9	-1.49E-6	8.11E-6
ADP-f	MJ	1.39E+1	3.40E-1	7.52E+0	2.18E+1	7.07E-2	4.65E-1	3.98E-3	-7.30E+0	1.50E+1
WDP	m3 depriv.	2.89E-1	1.04E-3	1.32E-1	4.22E-1	2.17E-4	9.00E-3	2.20E-5	-1.31E-1	3.00E-1
PM	disease inc.	1.35E-8	2.00E-9	2.26E-9	1.78E-8	4.16E-10	2.46E-9	2.74E-11	-5.90E-9	1.48E-8
IR	kBq U-235 eq	8.16E-3	1.48E-3	8.80E-2	9.77E-2	3.09E-4	1.42E-3	1.84E-5	-3.81E-3	9.56E-2
ETP-fw	CTUe	3.65E+0	2.76E-1	2.53E+0	6.45E+0	5.74E-2	5.38E-1	3.33E-3	-1.51E+0	5.54E+0
HTP-c	CTUh	1.02E-10	9.81E-12	5.50E-11	1.67E-10	2.04E-12	6.90E-11	9.87E-14	-4.25E-11	1.96E-10
HTP-nc	CTUh	2.84E-9	3.29E-10	1.73E-9	4.90E-9	6.84E-11	8.18E-10	2.15E-12	-1.21E-9	4.58E-9
SQP	Pt	1.00E+0	2.91E-1	2.06E+0	3.36E+0	6.05E-2	3.70E-1	1.02E-2	-1.70E+0	2.10E+0

Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	3.07E-1	4.87E-3	1.06E+0	1.37E+0	1.01E-3	2.27E-2	1.53E-4	-3.59E-1	1.04E+0
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	3.07E-1	4.87E-3	1.06E+0	1.37E+0	1.01E-3	2.27E-2	1.53E-4	-3.59E-1	1.04E+0
PENRE	MJ	1.49E+1	3.61E-1	7.55E+0	2.29E+1	7.51E-2	4.95E-1	4.22E-3	-7.88E+0	1.55E+1
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	1.49E+1	3.61E-1	7.55E+0	2.29E+1	7.51E-2	4.95E-1	4.22E-3	-7.88E+0	1.55E+1
PET	MJ	1.52E+1	3.65E-1	8.61E+0	2.42E+1	7.61E-2	5.18E-1	4.38E-3	-8.24E+0	1.66E+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	4.74E-3	3.84E-5	4.24E-3	9.01E-3	8.00E-6	2.72E-4	4.90E-6	-2.10E-3	7.19E-3
Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	1.98E-6	8.69E-7	1.57E-7	3.01E-6	1.81E-7	7.76E-7	4.81E-9	-2.19E-6	1.78E-6
NHWD	kg	1.95E-2	2.11E-2	4.47E-3	4.51E-2	4.38E-3	2.46E-2	1.75E-2	-6.05E-3	8.55E-2
RWD	kg	7.06E-6	2.31E-6	2.35E-7	9.61E-6	4.81E-7	1.80E-6	2.60E-8	-3.51E-6	8.41E-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

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