Environmental Profile

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

Ecochain v3.5.80

Product:	3084998 - EK PP-RCT Tee 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	0.03	0	0.01	0.04	0	0.01	0	-0.02	0.03
ADPE	kg Sb-eq	5.28E-6	5.04E-7	2.07E-6	7.86E-6	1.07E-7	5.27E-7	1.18E-9	-1.34E-6	7.15E-6
ADPF	kg Sb-eq	5.57E-3	1.42E-4	1.57E-4	5.87E-3	3.01E-5	2.01E-4	1.65E-6	-3.04E-3	3.06E-3
GWP	kg CO2-eq	3.26E-1	1.93E-2	2.83E-2	3.73E-1	4.10E-3	1.33E-1	1.66E-3	-1.98E-1	3.14E-1
ODP	kg CFC-11-eq	7.92E-9	3.58E-9	4.83E-8	5.98E-8	7.60E-10	2.70E-9	3.94E-11	-8.17E-9	5.51E-8
POCP	kg ethene-eq	2.71E-4	1.16E-5	2.04E-5	3.03E-4	2.46E-6	2.03E-5	3.79E-7	-1.29E-4	1.96E-4
AP	kg SO2-eq	1.04E-3	8.31E-5	1.94E-4	1.32E-3	1.76E-5	1.03E-4	8.70E-7	-4.92E-4	9.47E-4
EP	kg PO4 3−-eq	1.02E-4	1.66E-5	2.50E-5	1.44E-4	3.52E-6	1.84E-5	3.78E-7	-5.24E-5	1.14E-4
HTP	kg 1,4-DB-eq	5.36E-2	8.26E-3	3.43E-2	9.61E-2	1.75E-3	4.10E-2	1.30E-4	-2.53E-2	1.14E-1
FAETP	kg 1,4-DB-eq	1.60E-3	2.42E-4	1.24E-3	3.08E-3	5.14E-5	9.47E-4	1.41E-4	-7.33E-4	3.49E-3
MAETP	kg 1,4-DB-eq	3.64E+0	8.64E-1	3.44E+0	7.95E+0	1.83E-1	2.16E+0	1.40E-1	-1.55E+0	8.89E+0
TETP	kg 1,4-DB-eq	2.48E-4	2.93E-5	1.79E-3	2.06E-3	6.21E-6	1.25E-4	2.13E-7	-1.87E-4	2.01E-3
Environmental impact	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
GWP-total	kg CO2 eq	3.41E-1	1.95E-2	3.35E-2	3.94E-1	4.14E-3	1.38E-1	1.95E-3	-1.95E-1	3.43E-1
GWP-f	kg CO2 eq	3.39E-1	1.95E-2	2.70E-2	3.86E-1	4.13E-3	1.34E-1	1.95E-3	-2.05E-1	3.21E-1
GWP-b	kg CO2 eq	1.19E-3	1.18E-5	6.04E-3	7.24E-3	2.51E-6	4.42E-3	1.69E-6	9.82E-3	2.15E-2
GWP-luluc	kg CO2 eq	1.55E-4	6.89E-6	4.23E-4	5.85E-4	1.46E-6	2.36E-5	3.38E-8	-1.11E-4	4.99E-4
ODP	kg CFC11 eq	7.70E-9	4.49E-9	2.69E-8	3.91E-8	9.52E-10	3.19E-9	4.89E-11	-8.62E-9	3.47E-8
AP	mol H+ eq	1.26E-3	1.11E-4	2.45E-4	1.61E-3	2.35E-5	1.34E-4	1.17E-6	-5.94E-4	1.18E-3
EP-fw	kg P eq	5.81E-6	1.60E-7	8.92E-7	6.86E-6	3.40E-8	6.83E-7	1.54E-9	-3.04E-6	4.54E-6
EP-m	kg N eq	2.17E-4	3.97E-5	4.55E-5	3.02E-4	8.42E-6	3.96E-5	7.55E-7	-1.08E-4	2.42E-4
EP-T	mol N eq	2.43E-3	4.37E-4	5.62E-4	3.43E-3	9.28E-5	4.35E-4	4.74E-6	-1.21E-3	2.76E-3
POCP	kg NMVOC eq	1.07E-3	1.25E-4	1.31E-4	1.32E-3	2.65E-5	1.37E-4	1.78E-6	-5.26E-4	9.60E-4
ADP-mm	kg Sb eq	5.28E-6	5.04E-7	2.07E-6	7.85E-6	1.07E-7	5.27E-7	1.18E-9	-1.34E-6	7.15E-6
ADP-f	MJ	1.17E+1	2.99E-1	6.82E+0	1.88E+1	6.34E-2	4.15E-1	3.57E-3	-6.28E+0	1.30E+1
WDP	m3 depriv.	2.37E-1	9.17E-4	1.19E-1	3.57E-1	1.95E-4	8.01E-3	2.02E-5	-1.20E-1	2.45E-1
PM	disease inc.	1.13E-8	1.76E-9	2.03E-9	1.50E-8	3.73E-10	2.19E-9	2.46E-11	-5.52E-9	1.21E-8
IR	kBq U-235 eq	6.60E-3	1.31E-3	7.98E-2	8.77E-2	2.77E-4	1.26E-3	1.65E-5	-3.50E-3	8.58E-2
ETP-fw	CTUe	3.26E+0	2.43E-1	2.29E+0	5.78E+0	5.15E-2	4.78E-1	2.99E-3	-1.55E+0	4.76E+0
HTP-c	CTUh	8.46E-11	8.63E-12	4.95E-11	1.43E-10	1.83E-12	5.91E-11	8.89E-14	-3.86E-11	1.65E-10
HTP-nc	CTUh	2.35E-9	2.89E-10	1.56E-9	4.20E-9	6.14E-11	7.10E-10	1.93E-12	-1.12E-9	3.85E-9
SQP	Pt	8.91E-1	2.56E-1	1.87E+0	3.01E+0	5.43E-2	3.29E-1	9.16E-3	-2.05E+0	1.36E+0

Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	2.66E-1	4.29E-3	9.64E-1	1.23E+0	9.10E-4	2.02E-2	1.37E-4	-4.17E-1	8.38E-1
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	2.66E-1	4.29E-3	9.64E-1	1.23E+0	9.10E-4	2.02E-2	1.37E-4	-4.17E-1	8.38E-1
PENRE	MJ	1.25E+1	3.17E-1	6.84E+0	1.97E+1	6.73E-2	4.42E-1	3.79E-3	-6.77E+0	1.34E+1
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	1.25E+1	3.17E-1	6.84E+0	1.97E+1	6.73E-2	4.42E-1	3.79E-3	-6.77E+0	1.34E+1
PET	MJ	1.28E+1	3.22E-1	7.80E+0	2.09E+1	6.83E-2	4.62E-1	3.93E-3	-7.19E+0	1.43E+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	3.76E-3	3.38E-5	3.83E-3	7.61E-3	7.18E-6	2.39E-4	4.39E-6	-1.97E-3	5.89E-3
Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	1.70E-6	7.64E-7	1.35E-7	2.60E-6	1.62E-7	6.88E-7	4.32E-9	-1.67E-6	1.78E-6
NHWD	kg	1.58E-2	1.85E-2	3.85E-3	3.81E-2	3.93E-3	2.08E-2	1.57E-2	-5.54E-3	7.31E-2
RWD	kg	5.79E-6	2.03E-6	2.02E-7	8.02E-6	4.31E-7	1.61E-6	2.33E-8	-3.20E-6	6.89E-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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