Environmental Profile

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

Ecochain v3.5.80

Product:	3085077 - EK PP-RCT Tee GY 40
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	0.02	0	0.01	0	-0.01	0.02
ADPE	kg Sb-eq	2.77E-6	2.72E-7	1.10E-6	4.14E-6	5.72E-8	2.81E-7	6.33E-10	-7.17E-7	3.76E-6
ADPF	kg Sb-eq	2.96E-3	7.65E-5	8.33E-5	3.12E-3	1.61E-5	1.07E-4	8.82E-7	-1.62E-3	1.63E-3
GWP	kg CO2-eq	1.72E-1	1.04E-2	1.50E-2	1.98E-1	2.19E-3	6.99E-2	8.89E-4	-1.05E-1	1.66E-1
ODP	kg CFC-11-eq	4.13E-9	1.93E-9	2.57E-8	3.17E-8	4.07E-10	1.44E-9	2.11E-11	-4.27E-9	2.93E-8
POCP	kg ethene-eq	1.43E-4	6.25E-6	1.08E-5	1.60E-4	1.32E-6	1.08E-5	2.03E-7	-6.89E-5	1.04E-4
AP	kg SO2-eq	5.48E-4	4.48E-5	1.03E-4	6.96E-4	9.44E-6	5.51E-5	4.65E-7	-2.61E-4	5.00E-4
EP	kg PO4 3−-eq	5.35E-5	8.96E-6	1.33E-5	7.57E-5	1.89E-6	9.79E-6	2.02E-7	-2.75E-5	6.00E-5
HTP	kg 1,4-DB-eq	2.80E-2	4.46E-3	1.82E-2	5.07E-2	9.38E-4	2.18E-2	6.96E-5	-1.34E-2	6.02E-2
FAETP	kg 1,4-DB-eq	8.25E-4	1.31E-4	6.59E-4	1.61E-3	2.75E-5	4.98E-4	7.53E-5	-3.81E-4	1.83E-3
MAETP	kg 1,4-DB-eq	1.89E+0	4.66E-1	1.83E+0	4.19E+0	9.82E-2	1.14E+0	7.51E-2	-8.18E-1	4.68E+0
TETP	kg 1,4-DB-eq	1.29E-4	1.58E-5	9.51E-4	1.10E-3	3.32E-6	6.68E-5	1.14E-7	-9.65E-5	1.07E-3
Environmental impact	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
GWP-total	kg CO2 eq	1.80E-1	1.05E-2	1.78E-2	2.09E-1	2.21E-3	7.24E-2	1.04E-3	-1.04E-1	1.80E-1
GWP-f	kg CO2 eq	1.80E-1	1.05E-2	1.44E-2	2.04E-1	2.21E-3	7.02E-2	1.04E-3	-1.09E-1	1.69E-1
GWP-b	kg CO2 eq	6.74E-4	6.38E-6	3.21E-3	3.89E-3	1.34E-6	2.20E-3	9.05E-7	4.89E-3	1.10E-2
GWP-luluc	kg CO2 eq	7.92E-5	3.72E-6	2.25E-4	3.08E-4	7.83E-7	1.26E-5	1.80E-8	-5.66E-5	2.65E-4
ODP	kg CFC11 eq	4.00E-9	2.42E-9	1.43E-8	2.07E-8	5.10E-10	1.70E-9	2.62E-11	-4.50E-9	1.85E-8
AP	mol H+ eq	6.62E-4	5.98E-5	1.30E-4	8.52E-4	1.26E-5	7.12E-5	6.25E-7	-3.16E-4	6.21E-4
EP-fw	kg P eq	3.02E-6	8.64E-8	4.74E-7	3.58E-6	1.82E-8	3.65E-7	8.22E-10	-1.59E-6	2.38E-6
EP-m	kg N eq	1.14E-4	2.14E-5	2.42E-5	1.60E-4	4.51E-6	2.10E-5	4.04E-7	-5.74E-5	1.28E-4
EP-T	mol N eq	1.28E-3	2.36E-4	2.99E-4	1.81E-3	4.97E-5	2.31E-4	2.54E-6	-6.38E-4	1.46E-3
POCP	kg NMVOC eq	5.62E-4	6.75E-5	6.94E-5	6.99E-4	1.42E-5	7.28E-5	9.51E-7	-2.80E-4	5.07E-4
ADP-mm	kg Sb eq	2.76E-6	2.72E-7	1.10E-6	4.14E-6	5.72E-8	2.81E-7	6.33E-10	-7.16E-7	3.76E-6
ADP-f	MJ	6.20E+0	1.61E-1	3.63E+0	9.99E+0	3.39E-2	2.21E-1	1.91E-3	-3.34E+0	6.90E+0
WDP	m3 depriv.	1.25E-1	4.95E-4	6.33E-2	1.89E-1	1.04E-4	4.28E-3	1.07E-5	-6.38E-2	1.30E-1
PM	disease inc.	5.92E-9	9.48E-10	1.08E-9	7.95E-9	2.00E-10	1.16E-9	1.31E-11	-2.91E-9	6.41E-9
IR	kBq U-235 eq	3.47E-3	7.05E-4	4.25E-2	4.66E-2	1.48E-4	6.74E-4	8.84E-6	-1.84E-3	4.56E-2
ETP-fw	CTUe	1.67E+0	1.31E-1	1.22E+0	3.01E+0	2.76E-2	2.54E-1	1.60E-3	-8.01E-1	2.50E+0
HTP-c	CTUh	4.44E-11	4.66E-12	2.63E-11	7.53E-11	9.81E-13	3.13E-11	4.74E-14	-2.04E-11	8.73E-11
HTP-nc	CTUh	1.23E-9	1.56E-10	8.30E-10	2.22E-9	3.29E-11	3.78E-10	1.03E-12	-5.91E-10	2.04E-9
SQP	Pt	4.54E-1	1.38E-1	9.94E-1	1.59E+0	2.90E-2	1.76E-1	4.90E-3	-1.03E+0	7.66E-1

Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	1.37E-1	2.31E-3	5.13E-1	6.52E-1	4.87E-4	1.08E-2	7.34E-5	-2.11E-1	4.52E-1
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	1.37E-1	2.31E-3	5.13E-1	6.52E-1	4.87E-4	1.08E-2	7.34E-5	-2.11E-1	4.52E-1
PENRE	MJ	6.65E+0	1.71E-1	3.64E+0	1.05E+1	3.60E-2	2.36E-1	2.03E-3	-3.60E+0	7.13E+0
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	6.65E+0	1.71E-1	3.64E+0	1.05E+1	3.60E-2	2.36E-1	2.03E-3	-3.60E+0	7.13E+0
PET	MJ	6.79E+0	1.74E-1	4.15E+0	1.11E+1	3.65E-2	2.46E-1	2.10E-3	-3.81E+0	7.59E+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	1.97E-3	1.82E-5	2.03E-3	4.03E-3	3.84E-6	1.27E-4	2.35E-6	-1.04E-3	3.12E-3
Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	8.86E-7	4.12E-7	7.15E-8	1.37E-6	8.68E-8	3.66E-7	2.31E-9	-8.73E-7	9.52E-7
NHWD	kg	8.19E-3	9.99E-3	2.04E-3	2.02E-2	2.10E-3	1.11E-2	8.41E-3	-2.93E-3	3.89E-2
RWD	kg	3.04E-6	1.10E-6	1.07E-7	4.24E-6	2.31E-7	8.58E-7	1.25E-8	-1.68E-6	3.66E-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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