Environmental Profile

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

Ecochain v3.5.80

Product:	3084315 - EK PP-RCT Tee Reduced GY 50x40x50
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	0.01	0.03	0	0.01	0	-0.01	0.03
ADPE	kg Sb-eq	4.41E-6	4.37E-7	1.76E-6	6.60E-6	9.06E-8	4.57E-7	1.00E-9	-1.17E-6	5.98E-6
ADPF	kg Sb-eq	4.73E-3	1.23E-4	1.34E-4	4.98E-3	2.55E-5	1.73E-4	1.40E-6	-2.58E-3	2.60E-3
GWP	kg CO2-eq	2.78E-1	1.67E-2	2.41E-2	3.19E-1	3.47E-3	1.11E-1	1.41E-3	-1.69E-1	2.66E-1
ODP	kg CFC-11-eq	7.12E-9	3.11E-9	4.09E-8	5.11E-8	6.44E-10	2.34E-9	3.34E-11	-7.17E-9	4.69E-8
POCP	kg ethene-eq	2.29E-4	1.00E-5	1.73E-5	2.56E-4	2.08E-6	1.75E-5	3.21E-7	-1.11E-4	1.65E-4
AP	kg SO2-eq	8.86E-4	7.21E-5	1.64E-4	1.12E-3	1.49E-5	8.92E-5	7.37E-7	-4.35E-4	7.93E-4
EP	kg PO4 3−-eq	9.04E-5	1.44E-5	2.12E-5	1.26E-4	2.98E-6	1.59E-5	3.21E-7	-4.97E-5	9.56E-5
HTP	kg 1,4-DB-eq	4.60E-2	7.16E-3	2.92E-2	8.24E-2	1.49E-3	3.50E-2	1.10E-4	-2.28E-2	9.62E-2
FAETP	kg 1,4-DB-eq	1.51E-3	2.10E-4	1.05E-3	2.77E-3	4.35E-5	7.98E-4	1.19E-4	-7.68E-4	2.97E-3
MAETP	kg 1,4-DB-eq	3.12E+0	7.49E-1	2.92E+0	6.80E+0	1.55E-1	1.85E+0	1.19E-1	-1.40E+0	7.52E+0
TETP	kg 1,4-DB-eq	2.26E-4	2.54E-5	1.51E-3	1.76E-3	5.26E-6	1.06E-4	1.80E-7	-2.08E-4	1.67E-3
Environmental impact	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
GWP-total	kg CO2 eq	2.91E-1	1.69E-2	2.86E-2	3.36E-1	3.50E-3	1.18E-1	1.65E-3	-1.62E-1	2.97E-1
GWP-f	kg CO2 eq	2.89E-1	1.69E-2	2.30E-2	3.29E-1	3.50E-3	1.12E-1	1.65E-3	-1.75E-1	2.71E-1
GWP-b	kg CO2 eq	1.15E-3	1.03E-5	5.16E-3	6.32E-3	2.13E-6	6.01E-3	1.43E-6	1.35E-2	2.58E-2
GWP-luluc	kg CO2 eq	1.57E-4	5.97E-6	3.58E-4	5.22E-4	1.24E-6	2.01E-5	2.85E-8	-1.30E-4	4.13E-4
ODP	kg CFC11 eq	6.97E-9	3.89E-9	2.28E-8	3.37E-8	8.07E-10	2.77E-9	4.14E-11	-7.54E-9	2.98E-8
AP	mol H+ eq	1.08E-3	9.62E-5	2.08E-4	1.38E-3	1.99E-5	1.15E-4	9.90E-7	-5.27E-4	9.89E-4
EP-fw	kg P eq	5.13E-6	1.39E-7	7.58E-7	6.03E-6	2.88E-8	5.84E-7	1.30E-9	-3.02E-6	3.63E-6
EP-m	kg N eq	1.90E-4	3.44E-5	3.87E-5	2.63E-4	7.14E-6	3.43E-5	6.40E-7	-9.71E-5	2.08E-4
EP-T	mol N eq	2.11E-3	3.79E-4	4.77E-4	2.97E-3	7.86E-5	3.77E-4	4.01E-6	-1.08E-3	2.35E-3
POCP	kg NMVOC eq	9.09E-4	1.08E-4	1.11E-4	1.13E-3	2.25E-5	1.19E-4	1.51E-6	-4.60E-4	8.11E-4
ADP-mm	kg Sb eq	4.41E-6	4.37E-7	1.76E-6	6.60E-6	9.06E-8	4.57E-7	1.00E-9	-1.17E-6	5.98E-6
ADP-f	MJ	9.90E+0	2.59E-1	5.77E+0	1.59E+1	5.37E-2	3.55E-1	3.02E-3	-5.34E+0	1.10E+1
WDP	m3 depriv.	2.00E-1	7.95E-4	1.01E-1	3.02E-1	1.65E-4	6.82E-3	1.67E-5	-1.09E-1	2.00E-1
PM	disease inc.	9.80E-9	1.52E-9	1.72E-9	1.31E-8	3.16E-10	1.89E-9	2.08E-11	-5.16E-9	1.01E-8
IR	kBq U-235 eq	5.73E-3	1.13E-3	6.76E-2	7.44E-2	2.35E-4	1.09E-3	1.40E-5	-3.27E-3	7.25E-2
ETP-fw	CTUe	3.34E+0	2.10E-1	1.94E+0	5.49E+0	4.36E-2	4.13E-1	2.53E-3	-1.70E+0	4.25E+0
HTP-c	CTUh	7.28E-11	7.49E-12	4.20E-11	1.22E-10	1.55E-12	5.03E-11	7.50E-14	-3.56E-11	1.39E-10
HTP-nc	CTUh	2.03E-9	2.51E-10	1.32E-9	3.60E-9	5.20E-11	6.07E-10	1.64E-12	-1.05E-9	3.21E-9
SQP	Pt	9.48E-1	2.22E-1	1.58E+0	2.75E+0	4.60E-2	2.81E-1	7.76E-3	-2.66E+0	4.24E-1

Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	2.65E-1	3.72E-3	8.15E-1	1.08E+0	7.71E-4	1.73E-2	1.16E-4	-5.21E-1	5.81E-1
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	2.65E-1	3.72E-3	8.15E-1	1.08E+0	7.71E-4	1.73E-2	1.16E-4	-5.21E-1	5.81E-1
PENRE	MJ	1.06E+1	2.75E-1	5.79E+0	1.67E+1	5.71E-2	3.79E-1	3.21E-3	-5.76E+0	1.14E+1
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	1.06E+1	2.75E-1	5.79E+0	1.67E+1	5.71E-2	3.79E-1	3.21E-3	-5.76E+0	1.14E+1
PET	MJ	1.09E+1	2.79E-1	6.61E+0	1.78E+1	5.78E-2	3.96E-1	3.33E-3	-6.28E+0	1.19E+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	3.19E-3	2.93E-5	3.24E-3	6.46E-3	6.08E-6	2.04E-4	3.72E-6	-1.86E-3	4.82E-3
Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	1.50E-6	6.63E-7	1.17E-7	2.28E-6	1.37E-7	5.94E-7	3.66E-9	-1.46E-6	1.56E-6
NHWD	kg	1.39E-2	1.61E-2	3.35E-3	3.33E-2	3.33E-3	1.77E-2	1.33E-2	-5.09E-3	6.26E-2
RWD	kg	5.06E-6	1.76E-6	1.76E-7	7.00E-6	3.65E-7	1.39E-6	1.97E-8	-3.00E-6	5.78E-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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