Environmental Profile

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

Ecochain v3.5.80

Product:	3085086 - EK PP-RCT Tee Reduced GY 40x25x40
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	0.01	0	0	0	-0.01	0.01
ADPE	kg Sb-eq	2.20E-6	2.13E-7	8.24E-7	3.24E-6	4.29E-8	2.11E-7	4.76E-10	-5.39E-7	2.96E-6
ADPF	kg Sb-eq	2.21E-3	5.99E-5	6.24E-5	2.34E-3	1.21E-5	8.08E-5	6.63E-7	-1.21E-3	1.22E-3
GWP	kg CO2-eq	1.30E-1	8.16E-3	1.13E-2	1.49E-1	1.65E-3	5.27E-2	6.67E-4	-7.89E-2	1.25E-1
ODP	kg CFC-11-eq	3.22E-9	1.51E-9	1.92E-8	2.39E-8	3.05E-10	1.08E-9	1.58E-11	-3.22E-9	2.21E-8
POCP	kg ethene-eq	1.07E-4	4.90E-6	8.11E-6	1.20E-4	9.87E-7	8.13E-6	1.52E-7	-5.18E-5	7.78E-5
AP	kg SO2-eq	4.16E-4	3.51E-5	7.71E-5	5.29E-4	7.08E-6	4.14E-5	3.50E-7	-1.97E-4	3.81E-4
EP	kg PO4 3−-eq	4.11E-5	7.02E-6	9.93E-6	5.80E-5	1.41E-6	7.37E-6	1.51E-7	-2.09E-5	4.60E-5
HTP	kg 1,4-DB-eq	2.15E-2	3.49E-3	1.37E-2	3.86E-2	7.04E-4	1.64E-2	5.21E-5	-1.01E-2	4.57E-2
FAETP	kg 1,4-DB-eq	6.60E-4	1.02E-4	4.93E-4	1.25E-3	2.06E-5	3.75E-4	5.61E-5	-2.93E-4	1.41E-3
MAETP	kg 1,4-DB-eq	1.48E+0	3.65E-1	1.37E+0	3.21E+0	7.36E-2	8.57E-1	5.60E-2	-6.18E-1	3.58E+0
TETP	kg 1,4-DB-eq	9.93E-5	1.24E-5	7.10E-4	8.22E-4	2.49E-6	5.02E-5	8.57E-8	-7.49E-5	8.00E-4
Environmental impact	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
GWP-total	kg CO2 eq	1.36E-1	8.24E-3	1.33E-2	1.57E-1	1.66E-3	5.47E-2	7.81E-4	-7.77E-2	1.37E-1
GWP-f	kg CO2 eq	1.35E-1	8.23E-3	1.08E-2	1.54E-1	1.66E-3	5.29E-2	7.81E-4	-8.16E-2	1.28E-1
GWP-b	kg CO2 eq	5.01E-4	5.00E-6	2.40E-3	2.91E-3	1.01E-6	1.77E-3	6.78E-7	3.93E-3	8.61E-3
GWP-luluc	kg CO2 eq	6.17E-5	2.91E-6	1.68E-4	2.33E-4	5.87E-7	9.45E-6	1.37E-8	-4.43E-5	1.99E-4
ODP	kg CFC11 eq	3.14E-9	1.90E-9	1.07E-8	1.57E-8	3.82E-10	1.28E-9	1.96E-11	-3.40E-9	1.40E-8
AP	mol H+ eq	5.04E-4	4.69E-5	9.75E-5	6.48E-4	9.45E-6	5.35E-5	4.70E-7	-2.38E-4	4.74E-4
EP-fw	kg P eq	2.31E-6	6.77E-8	3.55E-7	2.74E-6	1.36E-8	2.74E-7	6.21E-10	-1.22E-6	1.81E-6
EP-m	kg N eq	8.65E-5	1.68E-5	1.81E-5	1.21E-4	3.38E-6	1.58E-5	3.02E-7	-4.33E-5	9.75E-5
EP-T	mol N eq	9.72E-4	1.85E-4	2.24E-4	1.38E-3	3.72E-5	1.74E-4	1.90E-6	-4.82E-4	1.11E-3
POCP	kg NMVOC eq	4.23E-4	5.28E-5	5.19E-5	5.28E-4	1.06E-5	5.48E-5	7.14E-7	-2.11E-4	3.84E-4
ADP-mm	kg Sb eq	2.20E-6	2.13E-7	8.24E-7	3.24E-6	4.29E-8	2.11E-7	4.76E-10	-5.39E-7	2.96E-6
ADP-f	MJ	4.63E+0	1.26E-1	2.71E+0	7.47E+0	2.55E-2	1.66E-1	1.43E-3	-2.51E+0	5.15E+0
WDP	m3 depriv.	9.44E-2	3.88E-4	4.74E-2	1.42E-1	7.81E-5	3.21E-3	8.48E-6	-4.83E-2	9.72E-2
PM	disease inc.	4.50E-9	7.43E-10	8.06E-10	6.05E-9	1.50E-10	8.76E-10	9.86E-12	-2.21E-9	4.88E-9
IR	kBq U-235 eq	2.63E-3	5.52E-4	3.17E-2	3.49E-2	1.11E-4	5.06E-4	6.63E-6	-1.40E-3	3.41E-2
ETP-fw	CTUe	1.31E+0	1.03E-1	9.09E-1	2.32E+0	2.07E-2	1.91E-1	1.20E-3	-6.21E-1	1.91E+0
HTP-c	CTUh	3.42E-11	3.65E-12	1.97E-11	5.75E-11	7.36E-13	2.38E-11	3.60E-14	-1.54E-11	6.67E-11
HTP-nc	CTUh	9.49E-10	1.22E-10	6.21E-10	1.69E-9	2.46E-11	2.85E-10	7.78E-13	-4.49E-10	1.55E-9
SQP	Pt	3.56E-1	1.08E-1	7.42E-1	1.21E+0	2.18E-2	1.32E-1	3.67E-3	-8.19E-1	5.44E-1

Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	1.06E-1	1.81E-3	3.83E-1	4.90E-1	3.65E-4	8.11E-3	5.48E-5	-1.67E-1	3.32E-1
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	1.06E-1	1.81E-3	3.83E-1	4.90E-1	3.65E-4	8.11E-3	5.48E-5	-1.67E-1	3.32E-1
PENRE	MJ	4.97E+0	1.34E-1	2.72E+0	7.82E+0	2.70E-2	1.77E-1	1.52E-3	-2.70E+0	5.33E+0
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	4.97E+0	1.34E-1	2.72E+0	7.82E+0	2.70E-2	1.77E-1	1.52E-3	-2.70E+0	5.33E+0
PET	MJ	5.08E+0	1.36E-1	3.10E+0	8.32E+0	2.74E-2	1.85E-1	1.58E-3	-2.87E+0	5.66E+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	1.50E-3	1.43E-5	1.52E-3	3.03E-3	2.88E-6	9.56E-5	1.76E-6	-7.90E-4	2.34E-3
Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	6.91E-7	3.23E-7	5.39E-8	1.07E-6	6.51E-8	2.76E-7	1.74E-9	-6.59E-7	7.51E-7
NHWD	kg	6.36E-3	7.83E-3	1.54E-3	1.57E-2	1.58E-3	8.32E-3	6.31E-3	-2.22E-3	2.97E-2
RWD	kg	2.31E-6	8.59E-7	8.06E-8	3.25E-6	1.73E-7	6.45E-7	9.35E-9	-1.28E-6	2.80E-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