Environmental Profile

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

Ecochain v3.5.80

Product:	3084995 - EK PP-RCT Tee Reduced GY 40x20x40
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	0.01
ADPE	kg Sb-eq	1.34E-6	1.02E-7	7.49E-7	2.19E-6	2.04E-8	1.04E-7	2.27E-10	-2.68E-7	2.04E-6
ADPF	kg Sb-eq	1.10E-3	2.88E-5	4.97E-5	1.18E-3	5.75E-6	3.93E-5	3.16E-7	-5.97E-4	6.27E-4
GWP	kg CO2-eq	6.61E-2	3.93E-3	9.02E-3	7.91E-2	7.83E-4	2.74E-2	3.17E-4	-3.98E-2	6.78E-2
ODP	kg CFC-11-eq	1.81E-9	7.28E-10	1.75E-8	2.01E-8	1.45E-10	5.37E-10	7.53E-12	-1.77E-9	1.90E-8
POCP	kg ethene-eq	5.47E-5	2.36E-6	6.90E-6	6.40E-5	4.70E-7	4.03E-6	7.24E-8	-2.55E-5	4.30E-5
AP	kg SO2-eq	2.16E-4	1.69E-5	6.85E-5	3.01E-4	3.37E-6	2.05E-5	1.67E-7	-1.00E-4	2.25E-4
EP	kg PO4 3−-eq	2.27E-5	3.37E-6	8.58E-6	3.46E-5	6.73E-7	3.69E-6	7.21E-8	-1.18E-5	2.73E-5
HTP	kg 1,4-DB-eq	1.18E-2	1.68E-3	1.13E-2	2.48E-2	3.35E-4	8.00E-3	2.48E-5	-5.33E-3	2.78E-2
FAETP	kg 1,4-DB-eq	3.95E-4	4.92E-5	4.12E-4	8.55E-4	9.82E-6	1.93E-4	2.67E-5	-1.85E-4	9.00E-4
MAETP	kg 1,4-DB-eq	8.12E-1	1.76E-1	1.20E+0	2.19E+0	3.51E-2	4.47E-1	2.67E-2	-3.27E-1	2.37E+0
TETP	kg 1,4-DB-eq	5.92E-5	5.95E-6	6.50E-4	7.15E-4	1.19E-6	2.42E-5	4.09E-8	-5.10E-5	6.89E-4
Environmental impact	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
GWP-total	kg CO2 eq	6.90E-2	3.96E-3	1.08E-2	8.38E-2	7.90E-4	2.90E-2	3.72E-4	-3.77E-2	7.63E-2
GWP-f	kg CO2 eq	6.88E-2	3.96E-3	8.73E-3	8.15E-2	7.90E-4	2.75E-2	3.72E-4	-4.11E-2	6.90E-2
GWP-b	kg CO2 eq	2.02E-4	2.40E-6	1.89E-3	2.09E-3	4.80E-7	1.53E-3	3.23E-7	3.44E-3	7.06E-3
GWP-luluc	kg CO2 eq	4.06E-5	1.40E-6	1.54E-4	1.96E-4	2.79E-7	4.56E-6	6.52E-9	-3.21E-5	1.69E-4
ODP	kg CFC11 eq	1.80E-9	9.12E-10	9.71E-9	1.24E-8	1.82E-10	6.36E-10	9.35E-12	-1.87E-9	1.14E-8
AP	mol H+ eq	2.63E-4	2.25E-5	8.67E-5	3.72E-4	4.50E-6	2.66E-5	2.24E-7	-1.22E-4	2.82E-4
EP-fw	kg P eq	1.30E-6	3.26E-8	3.07E-7	1.64E-6	6.50E-9	1.33E-7	2.96E-10	-7.18E-7	1.06E-6
EP-m	kg N eq	4.65E-5	8.07E-6	1.55E-5	7.01E-5	1.61E-6	7.96E-6	1.44E-7	-2.27E-5	5.71E-5
EP-T	mol N eq	5.24E-4	8.89E-5	1.98E-4	8.10E-4	1.77E-5	8.75E-5	9.07E-7	-2.53E-4	6.64E-4
POCP	kg NMVOC eq	2.19E-4	2.54E-5	4.49E-5	2.90E-4	5.07E-6	2.75E-5	3.40E-7	-1.06E-4	2.16E-4
ADP-mm	kg Sb eq	1.33E-6	1.02E-7	7.49E-7	2.19E-6	2.04E-8	1.04E-7	2.27E-10	-2.68E-7	2.04E-6
ADP-f	MJ	2.30E+0	6.08E-2	2.48E+0	4.84E+0	1.21E-2	8.10E-2	6.83E-4	-1.23E+0	3.70E+0
WDP	m3 depriv.	4.75E-2	1.86E-4	4.14E-2	8.91E-2	3.72E-5	1.55E-3	4.08E-6	-2.53E-2	6.54E-2
PM	disease inc.	2.40E-9	3.57E-10	6.81E-10	3.44E-9	7.13E-11	4.32E-10	4.70E-12	-1.21E-9	2.75E-9
IR	kBq U-235 eq	1.40E-3	2.66E-4	2.91E-2	3.08E-2	5.30E-5	2.49E-4	3.16E-6	-7.71E-4	3.03E-2
ETP-fw	CTUe	8.69E-1	4.93E-2	8.18E-1	1.74E+0	9.84E-3	9.47E-2	5.72E-4	-4.16E-1	1.43E+0
HTP-c	CTUh	1.92E-11	1.76E-12	1.69E-11	3.79E-11	3.50E-13	1.19E-11	1.72E-14	-8.36E-12	4.18E-11
HTP-nc	CTUh	5.13E-10	5.88E-11	5.53E-10	1.13E-9	1.17E-11	1.40E-10	3.71E-13	-2.46E-10	1.03E-9
SQP	Pt	2.56E-1	5.20E-2	6.77E-1	9.85E-1	1.04E-2	6.40E-2	1.75E-3	-6.72E-1	3.89E-1

Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	6.66E-2	8.72E-4	3.52E-1	4.19E-1	1.74E-4	3.92E-3	2.61E-5	-1.31E-1	2.93E-1
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	6.66E-2	8.72E-4	3.52E-1	4.19E-1	1.74E-4	3.92E-3	2.61E-5	-1.31E-1	2.93E-1
PENRE	MJ	2.47E+0	6.45E-2	2.48E+0	5.02E+0	1.29E-2	8.63E-2	7.25E-4	-1.33E+0	3.79E+0
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	2.47E+0	6.45E-2	2.48E+0	5.02E+0	1.29E-2	8.63E-2	7.25E-4	-1.33E+0	3.79E+0
PET	MJ	2.53E+0	6.54E-2	2.84E+0	5.43E+0	1.30E-2	9.02E-2	7.51E-4	-1.46E+0	4.08E+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	7.82E-4	6.87E-6	1.35E-3	2.14E-3	1.37E-6	4.66E-5	8.39E-7	-4.37E-4	1.75E-3
Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	4.16E-7	1.55E-7	2.75E-8	5.99E-7	3.10E-8	1.37E-7	8.29E-10	-3.61E-7	4.07E-7
NHWD	kg	3.90E-3	3.77E-3	8.01E-4	8.46E-3	7.51E-4	4.13E-3	3.00E-3	-1.19E-3	1.52E-2
RWD	kg	1.24E-6	4.13E-7	4.11E-8	1.70E-6	8.24E-8	3.18E-7	4.45E-9	-7.11E-7	1.39E-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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