Environmental Profile

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

Ecochain v3.5.80

Product:	3082639 - EK PP-RCT Tee Reduced GY 63x50x63
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	0.04	0	0.01	0.06	0	0.02	0	-0.02	0.05
ADPE	kg Sb-eq	8.30E-6	8.13E-7	3.37E-6	1.25E-5	1.74E-7	8.47E-7	1.92E-9	-2.16E-6	1.13E-5
ADPF	kg Sb-eq	8.86E-3	2.29E-4	2.53E-4	9.34E-3	4.89E-5	3.25E-4	2.68E-6	-4.86E-3	4.86E-3
GWP	kg CO2-eq	5.13E-1	3.12E-2	4.57E-2	5.90E-1	6.66E-3	2.05E-1	2.70E-3	-3.13E-1	4.91E-1
ODP	kg CFC-11-eq	1.21E-8	5.78E-9	7.86E-8	9.64E-8	1.23E-9	4.32E-9	6.40E-11	-1.24E-8	8.96E-8
POCP	kg ethene-eq	4.25E-4	1.87E-5	3.30E-5	4.76E-4	4.00E-6	3.25E-5	6.15E-7	-2.07E-4	3.06E-4
AP	kg SO2-eq	1.62E-3	1.34E-4	3.15E-4	2.07E-3	2.87E-5	1.66E-4	1.41E-6	-7.83E-4	1.49E-3
EP	kg PO4 3−-eq	1.57E-4	2.68E-5	4.05E-5	2.24E-4	5.72E-6	2.94E-5	6.15E-7	-8.12E-5	1.79E-4
HTP	kg 1,4-DB-eq	8.25E-2	1.33E-2	5.55E-2	1.51E-1	2.85E-3	6.59E-2	2.11E-4	-3.98E-2	1.81E-1
FAETP	kg 1,4-DB-eq	2.39E-3	3.90E-4	2.01E-3	4.78E-3	8.34E-5	1.47E-3	2.29E-4	-1.10E-3	5.46E-3
MAETP	kg 1,4-DB-eq	5.53E+0	1.39E+0	5.59E+0	1.25E+1	2.98E-1	3.35E+0	2.28E-1	-2.44E+0	1.40E+1
TETP	kg 1,4-DB-eq	3.75E-4	4.72E-5	2.91E-3	3.33E-3	1.01E-5	2.02E-4	3.45E-7	-2.74E-4	3.27E-3
Environmental impact	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
GWP-total	kg CO2 eq	5.37E-1	3.14E-2	5.41E-2	6.23E-1	6.72E-3	2.12E-1	3.16E-3	-3.11E-1	5.33E-1
GWP-f	kg CO2 eq	5.35E-1	3.14E-2	4.37E-2	6.10E-1	6.71E-3	2.06E-1	3.16E-3	-3.24E-1	5.02E-1
GWP-b	kg CO2 eq	2.23E-3	1.91E-5	9.75E-3	1.20E-2	4.08E-6	5.88E-3	2.75E-6	1.30E-2	3.09E-2
GWP-luluc	kg CO2 eq	2.23E-4	1.11E-5	6.89E-4	9.24E-4	2.38E-6	3.81E-5	5.47E-8	-1.58E-4	8.06E-4
ODP	kg CFC11 eq	1.17E-8	7.24E-9	4.38E-8	6.27E-8	1.55E-9	5.12E-9	7.94E-11	-1.31E-8	5.64E-8
AP	mol H+ eq	1.96E-3	1.79E-4	3.98E-4	2.54E-3	3.82E-5	2.14E-4	1.90E-6	-9.45E-4	1.85E-3
EP-fw	kg P eq	8.79E-6	2.58E-7	1.45E-6	1.05E-5	5.52E-8	1.10E-6	2.50E-9	-4.66E-6	7.00E-6
EP-m	kg N eq	3.36E-4	6.40E-5	7.37E-5	4.74E-4	1.37E-5	6.30E-5	1.23E-6	-1.71E-4	3.80E-4
EP-T	mol N eq	3.77E-3	7.06E-4	9.14E-4	5.39E-3	1.51E-4	6.93E-4	7.70E-6	-1.90E-3	4.34E-3
POCP	kg NMVOC eq	1.67E-3	2.02E-4	2.12E-4	2.08E-3	4.31E-5	2.18E-4	2.89E-6	-8.38E-4	1.51E-3
ADP-mm	kg Sb eq	8.29E-6	8.13E-7	3.37E-6	1.25E-5	1.74E-7	8.47E-7	1.92E-9	-2.16E-6	1.13E-5
ADP-f	MJ	1.86E+1	4.82E-1	1.11E+1	3.01E+1	1.03E-1	6.69E-1	5.80E-3	-1.00E+1	2.09E+1
WDP	m3 depriv.	3.74E-1	1.48E-3	1.93E-1	5.68E-1	3.16E-4	1.29E-2	3.23E-5	-1.91E-1	3.91E-1
PM	disease inc.	1.75E-8	2.84E-9	3.28E-9	2.36E-8	6.06E-10	3.51E-9	3.99E-11	-8.66E-9	1.91E-8
IR	kBq U-235 eq	1.02E-2	2.11E-3	1.30E-1	1.42E-1	4.50E-4	2.03E-3	2.68E-5	-5.46E-3	1.39E-1
ETP-fw	CTUe	4.71E+0	3.92E-1	3.72E+0	8.82E+0	8.37E-2	7.66E-1	4.85E-3	-2.28E+0	7.39E+0
HTP-c	CTUh	1.31E-10	1.39E-11	8.02E-11	2.25E-10	2.98E-12	9.39E-11	1.44E-13	-6.04E-11	2.62E-10
HTP-nc	CTUh	3.65E-9	4.67E-10	2.54E-9	6.65E-9	9.97E-11	1.14E-9	3.14E-12	-1.75E-9	6.14E-9
SQP	Pt	1.27E+0	4.13E-1	3.04E+0	4.72E+0	8.81E-2	5.31E-1	1.49E-2	-2.79E+0	2.57E+0

Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	3.91E-1	6.92E-3	1.57E+0	1.97E+0	1.48E-3	3.27E-2	2.23E-4	-5.80E-1	1.42E+0
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	3.91E-1	6.92E-3	1.57E+0	1.97E+0	1.48E-3	3.27E-2	2.23E-4	-5.80E-1	1.42E+0
PENRE	MJ	1.99E+1	5.12E-1	1.11E+1	3.16E+1	1.09E-1	7.12E-1	6.15E-3	-1.08E+1	2.16E+1
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	1.99E+1	5.12E-1	1.11E+1	3.16E+1	1.09E-1	7.12E-1	6.15E-3	-1.08E+1	2.16E+1
PET	MJ	2.03E+1	5.19E-1	1.27E+1	3.35E+1	1.11E-1	7.45E-1	6.38E-3	-1.14E+1	2.30E+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	5.82E-3	5.46E-5	6.21E-3	1.21E-2	1.17E-5	3.84E-4	7.14E-6	-3.08E-3	9.41E-3
Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	2.61E-6	1.23E-6	2.13E-7	4.06E-6	2.63E-7	1.10E-6	7.02E-9	-2.54E-6	2.89E-6
NHWD	kg	2.39E-2	2.99E-2	6.09E-3	5.99E-2	6.39E-3	3.31E-2	2.55E-2	-8.70E-3	1.16E-1
RWD	kg	8.95E-6	3.28E-6	3.19E-7	1.25E-5	7.01E-7	2.59E-6	3.78E-8	-4.97E-6	1.09E-5
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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