Environmental Profile

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

Ecochain v3.5.80

Product:	3085089 - EK PP-RCT Tee GN 50
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	0.03	0	0.01	0.04	0	0.01	0	-0.02	0.03
ADPE	kg Sb-eq	5.37E-6	4.97E-7	2.08E-6	7.94E-6	1.07E-7	5.36E-7	1.18E-9	-1.37E-6	7.22E-6
ADPF	kg Sb-eq	5.67E-3	1.40E-4	1.58E-4	5.97E-3	3.01E-5	2.03E-4	1.65E-6	-3.08E-3	3.12E-3
GWP	kg CO2-eq	3.34E-1	1.91E-2	2.85E-2	3.82E-1	4.10E-3	1.38E-1	1.66E-3	-2.03E-1	3.23E-1
ODP	kg CFC-11-eq	8.46E-9	3.53E-9	4.83E-8	6.03E-8	7.60E-10	2.75E-9	3.94E-11	-8.69E-9	5.52E-8
POCP	kg ethene-eq	2.78E-4	1.14E-5	2.05E-5	3.10E-4	2.46E-6	2.07E-5	3.79E-7	-1.31E-4	2.02E-4
AP	kg SO2-eq	1.07E-3	8.20E-5	1.94E-4	1.35E-3	1.76E-5	1.05E-4	8.70E-7	-5.07E-4	9.65E-4
EP	kg PO4 3−-eq	1.08E-4	1.64E-5	2.51E-5	1.50E-4	3.52E-6	1.88E-5	3.78E-7	-5.64E-5	1.16E-4
HTP	kg 1,4-DB-eq	5.60E-2	8.15E-3	3.46E-2	9.87E-2	1.75E-3	4.14E-2	1.30E-4	-2.64E-2	1.16E-1
FAETP	kg 1,4-DB-eq	1.76E-3	2.39E-4	1.25E-3	3.25E-3	5.14E-5	9.78E-4	1.41E-4	-8.37E-4	3.58E-3
MAETP	kg 1,4-DB-eq	3.84E+0	8.53E-1	3.45E+0	8.14E+0	1.83E-1	2.24E+0	1.40E-1	-1.62E+0	9.09E+0
TETP	kg 1,4-DB-eq	2.68E-4	2.89E-5	1.79E-3	2.09E-3	6.21E-6	1.26E-4	2.13E-7	-2.22E-4	2.00E-3
Environmental impact	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
GWP-total	kg CO2 eq	3.49E-1	1.92E-2	3.38E-2	4.02E-1	4.14E-3	1.45E-1	1.95E-3	-1.96E-1	3.57E-1
GWP-f	kg CO2 eq	3.48E-1	1.92E-2	2.72E-2	3.95E-1	4.13E-3	1.39E-1	1.95E-3	-2.10E-1	3.30E-1
GWP-b	kg CO2 eq	1.11E-3	1.17E-5	6.10E-3	7.22E-3	2.51E-6	5.98E-3	1.69E-6	1.34E-2	2.66E-2
GWP-luluc	kg CO2 eq	1.79E-4	6.80E-6	4.23E-4	6.09E-4	1.46E-6	2.37E-5	3.38E-8	-1.36E-4	4.99E-4
ODP	kg CFC11 eq	8.28E-9	4.43E-9	2.70E-8	3.97E-8	9.52E-10	3.25E-9	4.89E-11	-9.17E-9	3.47E-8
AP	mol H+ eq	1.30E-3	1.09E-4	2.46E-4	1.65E-3	2.35E-5	1.36E-4	1.17E-6	-6.14E-4	1.20E-3
EP-fw	kg P eq	6.20E-6	1.58E-7	8.96E-7	7.25E-6	3.40E-8	6.88E-7	1.54E-9	-3.35E-6	4.63E-6
EP-m	kg N eq	2.27E-4	3.91E-5	4.57E-5	3.12E-4	8.42E-6	4.05E-5	7.55E-7	-1.13E-4	2.49E-4
EP-T	mol N eq	2.54E-3	4.31E-4	5.64E-4	3.53E-3	9.28E-5	4.46E-4	4.74E-6	-1.26E-3	2.82E-3
POCP	kg NMVOC eq	1.10E-3	1.23E-4	1.31E-4	1.35E-3	2.65E-5	1.40E-4	1.78E-6	-5.40E-4	9.82E-4
ADP-mm	kg Sb eq	5.37E-6	4.97E-7	2.08E-6	7.94E-6	1.07E-7	5.36E-7	1.18E-9	-1.37E-6	7.22E-6
ADP-f	MJ	1.19E+1	2.95E-1	6.82E+0	1.90E+1	6.34E-2	4.19E-1	3.57E-3	-6.36E+0	1.31E+1
WDP	m3 depriv.	2.42E-1	9.05E-4	1.20E-1	3.63E-1	1.95E-4	8.05E-3	2.02E-5	-1.26E-1	2.45E-1
PM	disease inc.	1.17E-8	1.73E-9	2.04E-9	1.55E-8	3.73E-10	2.22E-9	2.46E-11	-5.86E-9	1.23E-8
IR	kBq U-235 eq	6.90E-3	1.29E-3	7.98E-2	8.80E-2	2.77E-4	1.28E-3	1.65E-5	-3.74E-3	8.59E-2
ETP-fw	CTUe	3.77E+0	2.39E-1	2.29E+0	6.30E+0	5.15E-2	4.86E-1	2.99E-3	-1.83E+0	5.01E+0
HTP-c	CTUh	8.80E-11	8.52E-12	4.97E-11	1.46E-10	1.83E-12	6.02E-11	8.89E-14	-4.09E-11	1.67E-10
HTP-nc	CTUh	2.44E-9	2.85E-10	1.56E-9	4.29E-9	6.14E-11	7.21E-10	1.93E-12	-1.19E-9	3.88E-9
SQP	Pt	1.06E+0	2.52E-1	1.87E+0	3.18E+0	5.43E-2	3.32E-1	9.16E-3	-2.69E+0	8.84E-1

Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	3.01E-1	4.23E-3	9.64E-1	1.27E+0	9.10E-4	2.04E-2	1.37E-4	-5.33E-1	7.57E-1
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	3.01E-1	4.23E-3	9.64E-1	1.27E+0	9.10E-4	2.04E-2	1.37E-4	-5.33E-1	7.57E-1
PENRE	MJ	1.27E+1	3.13E-1	6.84E+0	1.99E+1	6.73E-2	4.46E-1	3.79E-3	-6.86E+0	1.35E+1
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	1.27E+1	3.13E-1	6.84E+0	1.99E+1	6.73E-2	4.46E-1	3.79E-3	-6.86E+0	1.35E+1
PET	MJ	1.30E+1	3.17E-1	7.81E+0	2.11E+1	6.83E-2	4.66E-1	3.93E-3	-7.39E+0	1.43E+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	3.89E-3	3.34E-5	3.83E-3	7.76E-3	7.18E-6	2.41E-4	4.39E-6	-2.11E-3	5.90E-3
Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	1.79E-6	7.54E-7	1.39E-7	2.68E-6	1.62E-7	7.00E-7	4.32E-9	-1.77E-6	1.77E-6
NHWD	kg	1.68E-2	1.83E-2	3.96E-3	3.90E-2	3.93E-3	2.12E-2	1.57E-2	-5.84E-3	7.40E-2
RWD	kg	6.07E-6	2.00E-6	2.08E-7	8.28E-6	4.31E-7	1.64E-6	2.33E-8	-3.43E-6	6.94E-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

Ecochain Technologies BV
H.J.E. Wenckebachweg 123, 1096 AM Amsterdam, The Netherlands
https://www.ecochain.com
+31 20 3035 777