Environmental Profile

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

Ecochain v3.5.80

Product:	3082025 - EK PP-RCT Tee GN 63
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	0.06	0	0.01	0.07	0	0.02	0	-0.03	0.06
ADPE	kg Sb-eq	1.02E-5	9.77E-7	4.08E-6	1.52E-5	2.17E-7	1.06E-6	2.39E-9	-2.72E-6	1.38E-5
ADPF	kg Sb-eq	1.11E-2	2.75E-4	3.10E-4	1.17E-2	6.10E-5	4.07E-4	3.34E-6	-6.08E-3	6.07E-3
GWP	kg CO2-eq	6.43E-1	3.75E-2	5.59E-2	7.37E-1	8.30E-3	2.57E-1	3.37E-3	-3.93E-1	6.12E-1
ODP	kg CFC-11-eq	1.53E-8	6.95E-9	9.50E-8	1.17E-7	1.54E-9	5.43E-9	7.98E-11	-1.58E-8	1.09E-7
POCP	kg ethene-eq	5.32E-4	2.25E-5	4.02E-5	5.95E-4	4.98E-6	4.08E-5	7.67E-7	-2.60E-4	3.81E-4
AP	kg SO2-eq	2.04E-3	1.61E-4	3.82E-4	2.58E-3	3.57E-5	2.08E-4	1.76E-6	-9.89E-4	1.84E-3
EP	kg PO4 3−-eq	1.99E-4	3.22E-5	4.92E-5	2.80E-4	7.14E-6	3.69E-5	7.67E-7	-1.05E-4	2.20E-4
HTP	kg 1,4-DB-eq	1.04E-1	1.60E-2	6.77E-2	1.87E-1	3.55E-3	8.25E-2	2.64E-4	-5.06E-2	2.23E-1
FAETP	kg 1,4-DB-eq	3.07E-3	4.70E-4	2.44E-3	5.99E-3	1.04E-4	1.84E-3	2.85E-4	-1.47E-3	6.75E-3
MAETP	kg 1,4-DB-eq	6.94E+0	1.68E+0	6.79E+0	1.54E+1	3.72E-1	4.22E+0	2.85E-1	-3.10E+0	1.72E+1
TETP	kg 1,4-DB-eq	4.80E-4	5.68E-5	3.52E-3	4.05E-3	1.26E-5	2.53E-4	4.30E-7	-3.75E-4	3.95E-3
Environmental impact	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
GWP-total	kg CO2 eq	6.74E-1	3.78E-2	6.61E-2	7.78E-1	8.38E-3	2.67E-1	3.94E-3	-3.87E-1	6.69E-1
GWP-f	kg CO2 eq	6.71E-1	3.78E-2	5.34E-2	7.62E-1	8.37E-3	2.58E-1	3.95E-3	-4.07E-1	6.25E-1
GWP-b	kg CO2 eq	2.81E-3	2.29E-5	1.19E-2	1.48E-2	5.08E-6	8.84E-3	3.43E-6	1.96E-2	4.33E-2
GWP-luluc	kg CO2 eq	2.97E-4	1.34E-5	8.33E-4	1.14E-3	2.96E-6	4.76E-5	6.81E-8	-2.22E-4	9.73E-4
ODP	kg CFC11 eq	1.49E-8	8.71E-9	5.30E-8	7.66E-8	1.93E-9	6.43E-9	9.90E-11	-1.66E-8	6.85E-8
AP	mol H+ eq	2.46E-3	2.15E-4	4.83E-4	3.16E-3	4.77E-5	2.69E-4	2.37E-6	-1.20E-3	2.28E-3
EP-fw	kg P eq	1.12E-5	3.11E-7	1.76E-6	1.32E-5	6.89E-8	1.38E-6	3.11E-9	-6.11E-6	8.59E-6
EP-m	kg N eq	4.25E-4	7.70E-5	8.97E-5	5.91E-4	1.71E-5	7.92E-5	1.53E-6	-2.17E-4	4.72E-4
EP-T	mol N eq	4.75E-3	8.49E-4	1.11E-3	6.71E-3	1.88E-4	8.71E-4	9.60E-6	-2.42E-3	5.36E-3
POCP	kg NMVOC eq	2.09E-3	2.43E-4	2.57E-4	2.59E-3	5.37E-5	2.75E-4	3.60E-6	-1.06E-3	1.87E-3
ADP-mm	kg Sb eq	1.02E-5	9.77E-7	4.08E-6	1.52E-5	2.17E-7	1.06E-6	2.39E-9	-2.72E-6	1.38E-5
ADP-f	MJ	2.32E+1	5.80E-1	1.34E+1	3.72E+1	1.28E-1	8.37E-1	7.23E-3	-1.26E+1	2.56E+1
WDP	m3 depriv.	4.67E-1	1.78E-3	2.35E-1	7.04E-1	3.94E-4	1.62E-2	3.98E-5	-2.43E-1	4.78E-1
PM	disease inc.	2.21E-8	3.41E-9	4.00E-9	2.95E-8	7.56E-10	4.40E-9	4.97E-11	-1.11E-8	2.36E-8
IR	kBq U-235 eq	1.29E-2	2.53E-3	1.57E-1	1.73E-1	5.62E-4	2.55E-3	3.35E-5	-7.02E-3	1.69E-1
ETP-fw	CTUe	6.29E+0	4.71E-1	4.50E+0	1.13E+1	1.04E-1	9.62E-1	6.05E-3	-3.11E+0	9.22E+0
HTP-c	CTUh	1.64E-10	1.68E-11	9.75E-11	2.79E-10	3.71E-12	1.17E-10	1.79E-13	-7.74E-11	3.23E-10
HTP-nc	CTUh	4.58E-9	5.61E-10	3.07E-9	8.22E-9	1.24E-10	1.42E-9	3.91E-12	-2.25E-9	7.51E-9
SQP	Pt	1.71E+0	4.96E-1	3.68E+0	5.89E+0	1.10E-1	6.64E-1	1.85E-2	-4.10E+0	2.58E+0

Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	5.17E-1	8.32E-3	1.90E+0	2.42E+0	1.84E-3	4.09E-2	2.78E-4	-8.35E-1	1.63E+0
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	5.17E-1	8.32E-3	1.90E+0	2.42E+0	1.84E-3	4.09E-2	2.78E-4	-8.35E-1	1.63E+0
PENRE	MJ	2.49E+1	6.16E-1	1.35E+1	3.90E+1	1.36E-1	8.92E-1	7.67E-3	-1.35E+1	2.65E+1
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	2.49E+1	6.16E-1	1.35E+1	3.90E+1	1.36E-1	8.92E-1	7.67E-3	-1.35E+1	2.65E+1
PET	MJ	2.55E+1	6.24E-1	1.54E+1	4.14E+1	1.38E-1	9.32E-1	7.95E-3	-1.44E+1	2.81E+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	7.30E-3	6.56E-5	7.54E-3	1.49E-2	1.45E-5	4.81E-4	8.90E-6	-3.97E-3	1.14E-2
Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	3.29E-6	1.48E-6	2.69E-7	5.04E-6	3.29E-7	1.39E-6	8.74E-9	-3.22E-6	3.55E-6
NHWD	kg	3.02E-2	3.59E-2	7.67E-3	7.38E-2	7.96E-3	4.15E-2	3.18E-2	-1.11E-2	1.44E-1
RWD	kg	1.13E-5	3.94E-6	4.02E-7	1.57E-5	8.74E-7	3.25E-6	4.72E-8	-6.40E-6	1.34E-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

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