

# Environmental Profile

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

Ecochain v3.5.80



Product: 3085131 - EK PP-RCT Tee Reduced GY 40x32x40  
 Unit: 1 piece  
 Manufacturer: Wavin - CZ - Kostelec - Verified

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



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.

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

This document and supporting material contain confidential and proprietary business information of Wavin - CZ - Kostelec - Verified. These materials may be printed or (photo) copied or otherwise used only with the written consent of Wavin - CZ - Kostelec - Verified.

# Results

Environmental impact SBK set 1	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
ECI	euro	0.01	0	0	0.02	0	0.01	0	-0.01	0.01
ADPE	kg Sb-eq	2.44E-6	2.28E-7	9.44E-7	3.61E-6	4.97E-8	2.43E-7	5.51E-10	-6.20E-7	3.29E-6
ADPF	kg Sb-eq	2.54E-3	6.42E-5	7.14E-5	2.68E-3	1.40E-5	9.31E-5	7.67E-7	-1.40E-3	1.39E-3
GWP	kg CO2-eq	1.48E-1	8.75E-3	1.29E-2	1.69E-1	1.91E-3	5.94E-2	7.73E-4	-9.01E-2	1.41E-1
ODP	kg CFC-11-eq	3.55E-9	1.62E-9	2.20E-8	2.71E-8	3.53E-10	1.24E-9	1.83E-11	-3.60E-9	2.52E-8
POCP	kg ethene-eq	1.22E-4	5.25E-6	9.28E-6	1.37E-4	1.14E-6	9.33E-6	1.76E-7	-5.95E-5	8.79E-5
AP	kg SO2-eq	4.71E-4	3.77E-5	8.83E-5	5.97E-4	8.20E-6	4.76E-5	4.05E-7	-2.25E-4	4.28E-4
EP	kg PO4 3--eq	4.57E-5	7.52E-6	1.14E-5	6.46E-5	1.64E-6	8.44E-6	1.76E-7	-2.35E-5	5.14E-5
HTP	kg 1,4-DB-eq	2.40E-2	3.74E-3	1.56E-2	4.34E-2	8.15E-4	1.89E-2	6.04E-5	-1.15E-2	5.17E-2
FAETP	kg 1,4-DB-eq	7.10E-4	1.10E-4	5.64E-4	1.38E-3	2.39E-5	4.24E-4	6.52E-5	-3.20E-4	1.58E-3
MAETP	kg 1,4-DB-eq	1.63E+0	3.92E-1	1.57E+0	3.59E+0	8.53E-2	9.69E-1	6.51E-2	-7.02E-1	4.01E+0
TETP	kg 1,4-DB-eq	1.10E-4	1.33E-5	8.14E-4	9.36E-4	2.89E-6	5.80E-5	9.91E-8	-8.02E-5	9.17E-4
Environmental impact	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
GWP-total	kg CO2 eq	1.55E-1	8.83E-3	1.52E-2	1.79E-1	1.92E-3	6.14E-2	9.05E-4	-8.94E-2	1.54E-1
GWP-f	kg CO2 eq	1.54E-1	8.82E-3	1.23E-2	1.75E-1	1.92E-3	5.97E-2	9.05E-4	-9.33E-2	1.44E-1
GWP-b	kg CO2 eq	6.19E-4	5.36E-6	2.75E-3	3.37E-3	1.17E-6	1.76E-3	7.86E-7	3.89E-3	9.02E-3
GWP-luluc	kg CO2 eq	6.59E-5	3.12E-6	1.93E-4	2.62E-4	6.80E-7	1.09E-5	1.57E-8	-4.66E-5	2.27E-4
ODP	kg CFC11 eq	3.44E-9	2.03E-9	1.23E-8	1.77E-8	4.43E-10	1.47E-9	2.27E-11	-3.79E-9	1.59E-8
AP	mol H+ eq	5.69E-4	5.03E-5	1.12E-4	7.31E-4	1.09E-5	6.15E-5	5.44E-7	-2.72E-4	5.32E-4
EP-fw	kg P eq	2.57E-6	7.26E-8	4.06E-7	3.04E-6	1.58E-8	3.16E-7	7.17E-10	-1.35E-6	2.03E-6
EP-m	kg N eq	9.73E-5	1.80E-5	2.07E-5	1.36E-4	3.92E-6	1.81E-5	3.51E-7	-4.93E-5	1.09E-4
EP-T	mol N eq	1.09E-3	1.98E-4	2.56E-4	1.55E-3	4.32E-5	1.99E-4	2.20E-6	-5.48E-4	1.24E-3
POCP	kg NMVOC eq	4.81E-4	5.66E-5	5.94E-5	5.97E-4	1.23E-5	6.28E-5	8.27E-7	-2.41E-4	4.32E-4
ADP-mm	kg Sb eq	2.44E-6	2.28E-7	9.44E-7	3.61E-6	4.97E-8	2.43E-7	5.51E-10	-6.20E-7	3.29E-6
ADP-f	MJ	5.32E+0	1.35E-1	3.10E+0	8.56E+0	2.95E-2	1.92E-1	1.66E-3	-2.88E+0	5.90E+0
WDP	m3 depriv.	1.08E-1	4.16E-4	5.42E-2	1.62E-1	9.05E-5	3.71E-3	9.52E-6	-5.49E-2	1.11E-1
PM	disease inc.	5.08E-9	7.96E-10	9.23E-10	6.80E-9	1.73E-10	1.01E-9	1.14E-11	-2.50E-9	5.49E-9
IR	kBq U-235 eq	2.96E-3	5.92E-4	3.63E-2	3.99E-2	1.29E-4	5.83E-4	7.68E-6	-1.58E-3	3.90E-2
ETP-fw	CTUe	1.40E+0	1.10E-1	1.04E+0	2.55E+0	2.40E-2	2.20E-1	1.39E-3	-6.68E-1	2.12E+0
HTP-c	CTUh	3.82E-11	3.91E-12	2.25E-11	6.47E-11	8.52E-13	2.72E-11	4.14E-14	-1.74E-11	7.53E-11
HTP-nc	CTUh	1.06E-9	1.31E-10	7.11E-10	1.90E-9	2.86E-11	3.27E-10	9.00E-13	-5.06E-10	1.75E-9
SQP	Pt	3.75E-1	1.16E-1	8.50E-1	1.34E+0	2.52E-2	1.52E-1	4.26E-3	-8.29E-1	6.93E-1

Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	1.15E-1	1.94E-3	4.39E-1	5.55E-1	4.23E-4	9.37E-3	6.37E-5	-1.72E-1	3.93E-1
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	1.15E-1	1.94E-3	4.39E-1	5.55E-1	4.23E-4	9.37E-3	6.37E-5	-1.72E-1	3.93E-1
PENRE	MJ	5.71E+0	1.44E-1	3.11E+0	8.97E+0	3.13E-2	2.04E-1	1.76E-3	-3.11E+0	6.10E+0
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	5.71E+0	1.44E-1	3.11E+0	8.97E+0	3.13E-2	2.04E-1	1.76E-3	-3.11E+0	6.10E+0
PET	MJ	5.83E+0	1.46E-1	3.55E+0	9.53E+0	3.17E-2	2.14E-1	1.83E-3	-3.28E+0	6.49E+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	1.69E-3	1.53E-5	1.74E-3	3.44E-3	3.34E-6	1.10E-4	2.04E-6	-8.89E-4	2.67E-3
Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	7.64E-7	3.46E-7	6.14E-8	1.17E-6	7.54E-8	3.17E-7	2.01E-9	-7.37E-7	8.30E-7
NHWD	kg	7.00E-3	8.39E-3	1.75E-3	1.71E-2	1.83E-3	9.53E-3	7.31E-3	-2.51E-3	3.33E-2
RWD	kg	2.60E-6	9.21E-7	9.19E-8	3.61E-6	2.01E-7	7.42E-7	1.08E-8	-1.43E-6	3.13E-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