

# Environmental Profile

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

Ecochain v3.5.80



Product: 3082229 - EK PP-RCT Tee Reduced GN 63x25x63  
 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

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# 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	5.39E-6	5.26E-7	2.20E-6	8.12E-6	1.14E-7	5.41E-7	1.27E-9	-1.37E-6	7.41E-6
ADPF	kg Sb-eq	5.82E-3	1.48E-4	1.64E-4	6.13E-3	3.22E-5	2.10E-4	1.76E-6	-3.18E-3	3.19E-3
GWP	kg CO2-eq	3.33E-1	2.02E-2	2.96E-2	3.83E-1	4.39E-3	1.37E-1	1.78E-3	-2.03E-1	3.23E-1
ODP	kg CFC-11-eq	7.12E-9	3.74E-9	5.13E-8	6.22E-8	8.14E-10	2.75E-9	4.22E-11	-7.69E-9	5.81E-8
POCP	kg ethene-eq	2.79E-4	1.21E-5	2.15E-5	3.13E-4	2.63E-6	2.08E-5	4.05E-7	-1.33E-4	2.03E-4
AP	kg SO2-eq	1.05E-3	8.68E-5	2.05E-4	1.34E-3	1.89E-5	1.06E-4	9.31E-7	-4.85E-4	9.86E-4
EP	kg PO4 3--eq	9.56E-5	1.73E-5	2.63E-5	1.39E-4	3.77E-6	1.88E-5	4.05E-7	-4.46E-5	1.18E-4
HTP	kg 1,4-DB-eq	5.25E-2	8.63E-3	3.60E-2	9.71E-2	1.88E-3	4.29E-2	1.39E-4	-2.39E-2	1.18E-1
FAETP	kg 1,4-DB-eq	1.27E-3	2.53E-4	1.30E-3	2.83E-3	5.50E-5	9.68E-4	1.51E-4	-4.80E-4	3.52E-3
MAETP	kg 1,4-DB-eq	3.49E+0	9.03E-1	3.64E+0	8.04E+0	1.96E-1	2.15E+0	1.50E-1	-1.45E+0	9.09E+0
TETP	kg 1,4-DB-eq	2.17E-4	3.06E-5	1.90E-3	2.15E-3	6.65E-6	1.32E-4	2.28E-7	-9.76E-5	2.19E-3
Environmental impact	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
GWP-total	kg CO2 eq	3.49E-1	2.04E-2	3.51E-2	4.04E-1	4.43E-3	1.38E-1	2.08E-3	-2.11E-1	3.38E-1
GWP-f	kg CO2 eq	3.48E-1	2.03E-2	2.83E-2	3.96E-1	4.42E-3	1.37E-1	2.08E-3	-2.10E-1	3.30E-1
GWP-b	kg CO2 eq	1.27E-3	1.24E-5	6.30E-3	7.58E-3	2.69E-6	9.79E-5	1.81E-6	-9.14E-5	7.59E-3
GWP-luluc	kg CO2 eq	1.01E-4	7.20E-6	4.50E-4	5.59E-4	1.57E-6	2.49E-5	3.61E-8	-4.43E-5	5.41E-4
ODP	kg CFC11 eq	6.75E-9	4.69E-9	2.86E-8	4.01E-8	1.02E-9	3.26E-9	5.23E-11	-8.14E-9	3.62E-8
AP	mol H+ eq	1.26E-3	1.16E-4	2.60E-4	1.64E-3	2.52E-5	1.37E-4	1.25E-6	-5.84E-4	1.22E-3
EP-fw	kg P eq	5.36E-6	1.67E-7	9.42E-7	6.46E-6	3.64E-8	7.19E-7	1.64E-9	-2.33E-6	4.90E-6
EP-m	kg N eq	2.09E-4	4.15E-5	4.80E-5	2.99E-4	9.01E-6	4.01E-5	8.08E-7	-1.04E-4	2.45E-4
EP-T	mol N eq	2.37E-3	4.57E-4	5.95E-4	3.43E-3	9.93E-5	4.41E-4	5.07E-6	-1.15E-3	2.82E-3
POCP	kg NMVOC eq	1.08E-3	1.31E-4	1.38E-4	1.35E-3	2.84E-5	1.39E-4	1.90E-6	-5.27E-4	9.90E-4
ADP-mm	kg Sb eq	5.39E-6	5.26E-7	2.20E-6	8.12E-6	1.14E-7	5.41E-7	1.27E-9	-1.37E-6	7.41E-6
ADP-f	MJ	1.22E+1	3.12E-1	7.25E+0	1.98E+1	6.79E-2	4.33E-1	3.82E-3	-6.57E+0	1.37E+1
WDP	m3 depriv.	2.45E-1	9.58E-4	1.26E-1	3.72E-1	2.08E-4	8.48E-3	2.13E-5	-1.13E-1	2.68E-1
PM	disease inc.	1.10E-8	1.84E-9	2.13E-9	1.50E-8	3.99E-10	2.25E-9	2.63E-11	-4.90E-9	1.28E-8
IR	kBq U-235 eq	6.44E-3	1.36E-3	8.49E-2	9.27E-2	2.97E-4	1.31E-3	1.77E-5	-3.07E-3	9.13E-2
ETP-fw	CTUe	2.08E+0	2.54E-1	2.43E+0	4.75E+0	5.51E-2	4.90E-1	3.20E-3	-8.54E-1	4.45E+0
HTP-c	CTUh	8.32E-11	9.02E-12	5.22E-11	1.44E-10	1.96E-12	6.10E-11	9.49E-14	-3.49E-11	1.73E-10
HTP-nc	CTUh	2.31E-9	3.02E-10	1.65E-9	4.27E-9	6.57E-11	7.38E-10	2.07E-12	-9.86E-10	4.09E-9
SQP	Pt	5.01E-1	2.67E-1	1.99E+0	2.75E+0	5.81E-2	3.46E-1	9.80E-3	-2.89E-1	2.88E+0

Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	1.89E-1	4.48E-3	1.03E+0	1.22E+0	9.74E-4	2.13E-2	1.47E-4	-1.01E-1	1.14E+0
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	1.89E-1	4.48E-3	1.03E+0	1.22E+0	9.74E-4	2.13E-2	1.47E-4	-1.01E-1	1.14E+0
PENRE	MJ	1.31E+1	3.31E-1	7.27E+0	2.07E+1	7.21E-2	4.61E-1	4.05E-3	-7.08E+0	1.41E+1
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	1.31E+1	3.31E-1	7.27E+0	2.07E+1	7.21E-2	4.61E-1	4.05E-3	-7.08E+0	1.41E+1
PET	MJ	1.33E+1	3.36E-1	8.30E+0	2.19E+1	7.30E-2	4.83E-1	4.20E-3	-7.18E+0	1.53E+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	3.78E-3	3.53E-5	4.05E-3	7.87E-3	7.68E-6	2.51E-4	4.70E-6	-1.71E-3	6.42E-3
Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	1.58E-6	7.98E-7	1.35E-7	2.51E-6	1.74E-7	7.07E-7	4.62E-9	-1.60E-6	1.80E-6
NHWD	kg	1.45E-2	1.94E-2	3.86E-3	3.77E-2	4.21E-3	2.16E-2	1.68E-2	-5.07E-3	7.53E-2
RWD	kg	5.58E-6	2.12E-6	2.02E-7	7.90E-6	4.62E-7	1.66E-6	2.49E-8	-2.78E-6	7.27E-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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