

# Environmental Profile

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

Ecochain v3.5.80



Product: 3079572 - EK PP-RCT Reducer I/E GY 75x50  
 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	☑	☑	☑	☑									

## 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 non-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	0.02	0	0	0.03	0	0.01	0	-0.01	0.03
ADPE	kg Sb-eq	4.05E-6	3.28E-7	1.34E-6	5.72E-6	6.88E-8	3.59E-7	7.63E-10	-9.08E-7	5.24E-6
ADPF	kg Sb-eq	4.35E-3	9.22E-5	1.07E-4	4.55E-3	1.94E-5	1.36E-4	1.06E-6	-2.25E-3	2.46E-3
GWP	kg CO2-eq	2.67E-1	1.26E-2	1.92E-2	2.99E-1	2.64E-3	1.32E-1	1.07E-3	-1.59E-1	2.77E-1
ODP	kg CFC-11-eq	7.16E-9	2.33E-9	3.10E-8	4.05E-8	4.89E-10	1.88E-9	2.54E-11	-8.18E-9	3.47E-8
POCP	kg ethene-eq	2.33E-4	7.54E-6	1.35E-5	2.55E-4	1.58E-6	1.43E-5	2.44E-7	-9.01E-5	1.81E-4
AP	kg SO2-eq	8.89E-4	5.40E-5	1.26E-4	1.07E-3	1.13E-5	7.33E-5	5.60E-7	-3.49E-4	8.05E-4
EP	kg PO4 3--eq	9.25E-5	1.08E-5	1.64E-5	1.20E-4	2.27E-6	1.34E-5	2.43E-7	-4.05E-5	9.51E-5
HTP	kg 1,4-DB-eq	4.94E-2	5.37E-3	2.30E-2	7.78E-2	1.13E-3	2.84E-2	8.35E-5	-1.90E-2	8.84E-2
FAETP	kg 1,4-DB-eq	1.51E-3	1.57E-4	8.27E-4	2.49E-3	3.30E-5	8.80E-4	9.01E-5	-5.98E-4	2.90E-3
MAETP	kg 1,4-DB-eq	3.57E+0	5.62E-1	2.25E+0	6.39E+0	1.18E-1	1.93E+0	8.99E-2	-1.14E+0	7.38E+0
TETP	kg 1,4-DB-eq	2.39E-4	1.90E-5	1.15E-3	1.41E-3	4.00E-6	8.28E-5	1.37E-7	-1.62E-4	1.33E-3
Environmental impact	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
GWP-total	kg CO2 eq	2.78E-1	1.27E-2	2.26E-2	3.13E-1	2.66E-3	1.37E-1	1.25E-3	-1.54E-1	3.00E-1
GWP-f	kg CO2 eq	2.78E-1	1.27E-2	1.82E-2	3.09E-1	2.66E-3	1.33E-1	1.25E-3	-1.64E-1	2.82E-1
GWP-b	kg CO2 eq	-5.81E-4	7.69E-6	4.12E-3	3.55E-3	1.61E-6	4.48E-3	1.09E-6	1.00E-2	1.81E-2
GWP-luluc	kg CO2 eq	1.64E-4	4.48E-6	2.72E-4	4.41E-4	9.41E-7	1.56E-5	2.18E-8	-9.87E-5	3.58E-4
ODP	kg CFC11 eq	7.10E-9	2.92E-9	1.74E-8	2.74E-8	6.13E-10	2.22E-9	3.15E-11	-8.82E-9	2.14E-8
AP	mol H+ eq	1.08E-3	7.21E-5	1.59E-4	1.31E-3	1.51E-5	9.54E-5	7.53E-7	-4.25E-4	9.96E-4
EP-fw	kg P eq	5.77E-6	1.04E-7	5.87E-7	6.46E-6	2.19E-8	4.56E-7	9.94E-10	-2.34E-6	4.59E-6
EP-m	kg N eq	1.91E-4	2.58E-5	3.00E-5	2.47E-4	5.42E-6	2.93E-5	4.85E-7	-8.13E-5	2.01E-4
EP-T	mol N eq	2.13E-3	2.84E-4	3.67E-4	2.78E-3	5.97E-5	3.23E-4	3.05E-6	-9.05E-4	2.26E-3
POCP	kg NMVOC eq	9.21E-4	8.13E-5	8.59E-5	1.09E-3	1.71E-5	1.00E-4	1.14E-6	-3.79E-4	8.27E-4
ADP-mm	kg Sb eq	4.05E-6	3.28E-7	1.34E-6	5.72E-6	6.88E-8	3.59E-7	7.63E-10	-9.08E-7	5.24E-6
ADP-f	MJ	9.03E+0	1.94E-1	4.38E+0	1.36E+1	4.08E-2	2.80E-1	2.30E-3	-4.59E+0	9.34E+0
WDP	m3 depriv.	1.95E-1	5.96E-4	7.80E-2	2.74E-1	1.25E-4	5.33E-3	1.34E-5	-8.52E-2	1.94E-1
PM	disease inc.	9.59E-9	1.14E-9	1.35E-9	1.21E-8	2.40E-10	1.52E-9	1.58E-11	-4.00E-9	9.85E-9
IR	kBq U-235 eq	5.93E-3	8.49E-4	5.12E-2	5.80E-2	1.78E-4	8.62E-4	1.06E-5	-2.66E-3	5.64E-2
ETP-fw	CTUe	3.31E+0	1.58E-1	1.48E+0	4.94E+0	3.31E-2	3.32E-1	1.92E-3	-1.33E+0	3.98E+0
HTP-c	CTUh	7.35E-11	5.62E-12	3.26E-11	1.12E-10	1.18E-12	4.48E-11	5.75E-14	-2.92E-11	1.29E-10
HTP-nc	CTUh	2.03E-9	1.88E-10	1.01E-9	3.23E-9	3.95E-11	5.15E-10	1.25E-12	-8.29E-10	2.96E-9
SQP	Pt	9.59E-1	1.66E-1	1.20E+0	2.33E+0	3.49E-2	2.21E-1	5.89E-3	-2.00E+0	5.86E-1

Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	2.64E-1	2.79E-3	6.18E-1	8.85E-1	5.85E-4	1.35E-2	8.80E-5	-3.92E-1	5.07E-1
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	2.64E-1	2.79E-3	6.18E-1	8.85E-1	5.85E-4	1.35E-2	8.80E-5	-3.92E-1	5.07E-1
PENRE	MJ	9.69E+0	2.06E-1	4.40E+0	1.43E+1	4.33E-2	2.98E-1	2.44E-3	-4.96E+0	9.67E+0
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	9.69E+0	2.06E-1	4.40E+0	1.43E+1	4.33E-2	2.98E-1	2.44E-3	-4.96E+0	9.67E+0
PET	MJ	9.95E+0	2.09E-1	5.01E+0	1.52E+1	4.39E-2	3.11E-1	2.53E-3	-5.36E+0	1.02E+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	3.43E-3	2.20E-5	2.49E-3	5.94E-3	4.62E-6	1.66E-4	2.83E-6	-1.46E-3	4.66E-3
Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	1.46E-6	4.97E-7	1.04E-7	2.06E-6	1.04E-7	4.79E-7	2.79E-9	-1.70E-6	9.40E-7
NHWD	kg	1.52E-2	1.20E-2	2.94E-3	3.02E-2	2.53E-3	1.60E-2	1.01E-2	-4.08E-3	5.47E-2
RWD	kg	5.13E-6	1.32E-6	1.55E-7	6.61E-6	2.78E-7	1.10E-6	1.50E-8	-2.50E-6	5.51E-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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