

Environmental Profile

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

Ecochain v3.5.80



Product: 3085434 - EK PP-RCT Reducer I/E GY 50x25
 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 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	0.01	0	0	0.01	0	0	0	-0	0.01
ADPE	kg Sb-eq	1.29E-6	1.42E-7	4.54E-7	1.88E-6	2.86E-8	1.35E-7	3.16E-10	-3.41E-7	1.71E-6
ADPF	kg Sb-eq	1.46E-3	3.99E-5	3.57E-5	1.54E-3	8.05E-6	5.26E-5	4.41E-7	-7.98E-4	7.99E-4
GWP	kg CO2-eq	8.35E-2	5.43E-3	6.43E-3	9.54E-2	1.10E-3	3.46E-2	4.45E-4	-5.10E-2	8.05E-2
ODP	kg CFC-11-eq	1.78E-9	1.01E-9	1.05E-8	1.33E-8	2.03E-10	6.88E-10	1.05E-11	-1.94E-9	1.23E-8
POCP	kg ethene-eq	7.02E-5	3.26E-6	4.56E-6	7.80E-5	6.58E-7	5.21E-6	1.01E-7	-3.34E-5	5.06E-5
AP	kg SO2-eq	2.64E-4	2.34E-5	4.27E-5	3.30E-4	4.72E-6	2.66E-5	2.33E-7	-1.21E-4	2.40E-4
EP	kg PO4 3--eq	2.39E-5	4.67E-6	5.55E-6	3.41E-5	9.43E-7	4.70E-6	1.01E-7	-1.11E-5	2.88E-5
HTP	kg 1,4-DB-eq	1.31E-2	2.32E-3	7.74E-3	2.31E-2	4.69E-4	1.07E-2	3.48E-5	-5.97E-3	2.84E-2
FAETP	kg 1,4-DB-eq	3.18E-4	6.80E-5	2.78E-4	6.64E-4	1.37E-5	2.44E-4	3.76E-5	-1.19E-4	8.41E-4
MAETP	kg 1,4-DB-eq	8.77E-1	2.43E-1	7.62E-1	1.88E+0	4.91E-2	5.42E-1	3.75E-2	-3.62E-1	2.15E+0
TETP	kg 1,4-DB-eq	5.39E-5	8.23E-6	3.90E-4	4.52E-4	1.66E-6	3.31E-5	5.69E-8	-2.40E-5	4.63E-4
Environmental impact	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
GWP-total	kg CO2 eq	8.75E-2	5.48E-3	7.59E-3	1.01E-1	1.11E-3	3.48E-2	5.21E-4	-5.29E-2	8.41E-2
GWP-f	kg CO2 eq	8.72E-2	5.47E-3	6.12E-3	9.88E-2	1.11E-3	3.47E-2	5.21E-4	-5.28E-2	8.24E-2
GWP-b	kg CO2 eq	3.03E-4	3.32E-6	1.38E-3	1.69E-3	6.71E-7	2.48E-6	4.53E-7	-7.34E-5	1.62E-3
GWP-luluc	kg CO2 eq	2.53E-5	1.94E-6	9.24E-5	1.20E-4	3.91E-7	6.23E-6	9.01E-9	-1.07E-5	1.15E-4
ODP	kg CFC11 eq	1.69E-9	1.26E-9	5.90E-9	8.85E-9	2.55E-10	8.15E-10	1.31E-11	-2.06E-9	7.87E-9
AP	mol H+ eq	3.17E-4	3.12E-5	5.40E-5	4.02E-4	6.30E-6	3.44E-5	3.13E-7	-1.46E-4	2.97E-4
EP-fw	kg P eq	1.35E-6	4.50E-8	1.98E-7	1.59E-6	9.10E-9	1.80E-7	4.11E-10	-5.77E-7	1.20E-6
EP-m	kg N eq	5.24E-5	1.12E-5	1.01E-5	7.37E-5	2.25E-6	1.00E-5	2.02E-7	-2.59E-5	6.03E-5
EP-T	mol N eq	5.94E-4	1.23E-4	1.24E-4	8.41E-4	2.48E-5	1.11E-4	1.27E-6	-2.87E-4	6.90E-4
POCP	kg NMVOC eq	2.71E-4	3.52E-5	2.90E-5	3.35E-4	7.10E-6	3.49E-5	4.76E-7	-1.32E-4	2.46E-4
ADP-mm	kg Sb eq	1.29E-6	1.42E-7	4.54E-7	1.88E-6	2.86E-8	1.35E-7	3.16E-10	-3.41E-7	1.71E-6
ADP-f	MJ	3.06E+0	8.40E-2	1.49E+0	4.63E+0	1.70E-2	1.08E-1	9.55E-4	-1.65E+0	3.11E+0
WDP	m3 depriv.	6.17E-2	2.58E-4	2.64E-2	8.83E-2	5.21E-5	2.12E-3	5.33E-6	-2.83E-2	6.22E-2
PM	disease inc.	2.75E-9	4.94E-10	4.54E-10	3.70E-9	9.98E-11	5.64E-10	6.57E-12	-1.22E-9	3.15E-9
IR	kBq U-235 eq	1.62E-3	3.67E-4	1.74E-2	1.94E-2	7.42E-5	3.27E-4	4.42E-6	-7.66E-4	1.90E-2
ETP-fw	CTUe	5.15E-1	6.82E-2	5.02E-1	1.08E+0	1.38E-2	1.23E-1	8.00E-4	-2.10E-1	1.01E+0
HTP-c	CTUh	2.05E-11	2.43E-12	1.10E-11	3.40E-11	4.90E-13	1.53E-11	2.37E-14	-8.71E-12	4.11E-11
HTP-nc	CTUh	5.76E-10	8.13E-11	3.44E-10	1.00E-9	1.64E-11	1.85E-10	5.17E-13	-2.46E-10	9.57E-10
SQP	Pt	1.22E-1	7.19E-2	4.08E-1	6.02E-1	1.45E-2	8.65E-2	2.45E-3	-6.33E-2	6.42E-1

Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	4.73E-2	1.21E-3	2.10E-1	2.59E-1	2.43E-4	5.33E-3	3.67E-5	-2.37E-2	2.41E-1
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	4.73E-2	1.21E-3	2.10E-1	2.59E-1	2.43E-4	5.33E-3	3.67E-5	-2.37E-2	2.41E-1
PENRE	MJ	3.28E+0	8.92E-2	1.49E+0	4.87E+0	1.80E-2	1.15E-1	1.01E-3	-1.77E+0	3.23E+0
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	3.28E+0	8.92E-2	1.49E+0	4.87E+0	1.80E-2	1.15E-1	1.01E-3	-1.77E+0	3.23E+0
PET	MJ	3.33E+0	9.04E-2	1.70E+0	5.12E+0	1.83E-2	1.21E-1	1.05E-3	-1.80E+0	3.47E+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	9.51E-4	9.51E-6	8.44E-4	1.80E-3	1.92E-6	6.27E-5	1.18E-6	-4.26E-4	1.44E-3
Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	3.84E-7	2.15E-7	3.38E-8	6.32E-7	4.34E-8	1.77E-7	1.16E-9	-4.03E-7	4.51E-7
NHWD	kg	3.55E-3	5.21E-3	9.61E-4	9.72E-3	1.05E-3	5.42E-3	4.20E-3	-1.26E-3	1.91E-2
RWD	kg	1.40E-6	5.71E-7	5.06E-8	2.02E-6	1.15E-7	4.14E-7	6.23E-9	-6.93E-7	1.86E-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