

Environmental Profile

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

Ecochain v3.5.80



Product: 3079581 - EK PP-RCT Reducer I/E GY 90x63
 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	☑	☑	☑	☑									

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	0.03	0	0.01	0	-0.01	0.03
ADPE	kg Sb-eq	5.04E-6	4.82E-7	1.93E-6	7.46E-6	9.94E-8	4.99E-7	1.10E-9	-1.28E-6	6.78E-6
ADPF	kg Sb-eq	5.22E-3	1.36E-4	1.47E-4	5.51E-3	2.80E-5	1.89E-4	1.53E-6	-2.85E-3	2.88E-3
GWP	kg CO2-eq	3.08E-1	1.85E-2	2.65E-2	3.53E-1	3.81E-3	1.26E-1	1.55E-3	-1.87E-1	2.97E-1
ODP	kg CFC-11-eq	7.89E-9	3.43E-9	4.49E-8	5.62E-8	7.07E-10	2.56E-9	3.66E-11	-7.96E-9	5.16E-8
POCP	kg ethene-eq	2.55E-4	1.11E-5	1.90E-5	2.85E-4	2.29E-6	1.92E-5	3.52E-7	-1.22E-4	1.85E-4
AP	kg SO2-eq	9.89E-4	7.96E-5	1.81E-4	1.25E-3	1.64E-5	9.78E-5	8.09E-7	-4.72E-4	8.92E-4
EP	kg PO4 3--eq	1.00E-4	1.59E-5	2.33E-5	1.39E-4	3.28E-6	1.75E-5	3.51E-7	-5.29E-5	1.08E-4
HTP	kg 1,4-DB-eq	5.16E-2	7.91E-3	3.21E-2	9.16E-2	1.63E-3	3.84E-2	1.21E-4	-2.46E-2	1.07E-1
FAETP	kg 1,4-DB-eq	1.66E-3	2.32E-4	1.16E-3	3.05E-3	4.78E-5	8.95E-4	1.30E-4	-7.95E-4	3.33E-3
MAETP	kg 1,4-DB-eq	3.54E+0	8.28E-1	3.21E+0	7.58E+0	1.71E-1	2.06E+0	1.30E-1	-1.51E+0	8.43E+0
TETP	kg 1,4-DB-eq	2.49E-4	2.80E-5	1.66E-3	1.94E-3	5.78E-6	1.17E-4	1.98E-7	-2.12E-4	1.85E-3
Environmental impact	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
GWP-total	kg CO2 eq	3.22E-1	1.87E-2	3.14E-2	3.72E-1	3.85E-3	1.32E-1	1.81E-3	-1.81E-1	3.29E-1
GWP-f	kg CO2 eq	3.21E-1	1.86E-2	2.53E-2	3.65E-1	3.84E-3	1.26E-1	1.81E-3	-1.94E-1	3.03E-1
GWP-b	kg CO2 eq	1.12E-3	1.13E-5	5.67E-3	6.80E-3	2.33E-6	5.83E-3	1.57E-6	1.31E-2	2.57E-2
GWP-luluc	kg CO2 eq	1.68E-4	6.60E-6	3.94E-4	5.68E-4	1.36E-6	2.20E-5	3.15E-8	-1.30E-4	4.61E-4
ODP	kg CFC11 eq	7.73E-9	4.30E-9	2.51E-8	3.71E-8	8.86E-10	3.03E-9	4.55E-11	-8.39E-9	3.27E-8
AP	mol H+ eq	1.20E-3	1.06E-4	2.28E-4	1.53E-3	2.19E-5	1.27E-4	1.09E-6	-5.72E-4	1.11E-3
EP-fw	kg P eq	5.71E-6	1.53E-7	8.32E-7	6.70E-6	3.16E-8	6.40E-7	1.43E-9	-3.17E-6	4.20E-6
EP-m	kg N eq	2.10E-4	3.80E-5	4.25E-5	2.91E-4	7.83E-6	3.76E-5	7.01E-7	-1.05E-4	2.31E-4
EP-T	mol N eq	2.34E-3	4.19E-4	5.24E-4	3.29E-3	8.63E-5	4.14E-4	4.41E-6	-1.17E-3	2.62E-3
POCP	kg NMVOC eq	1.01E-3	1.20E-4	1.22E-4	1.25E-3	2.47E-5	1.30E-4	1.65E-6	-5.02E-4	9.07E-4
ADP-mm	kg Sb eq	5.04E-6	4.82E-7	1.93E-6	7.45E-6	9.94E-8	4.99E-7	1.10E-9	-1.28E-6	6.77E-6
ADP-f	MJ	1.09E+1	2.86E-1	6.34E+0	1.76E+1	5.90E-2	3.89E-1	3.32E-3	-5.89E+0	1.21E+1
WDP	m3 depriv.	2.23E-1	8.78E-4	1.11E-1	3.35E-1	1.81E-4	7.48E-3	1.90E-5	-1.18E-1	2.25E-1
PM	disease inc.	1.08E-8	1.68E-9	1.89E-9	1.44E-8	3.47E-10	2.06E-9	2.28E-11	-5.51E-9	1.14E-8
IR	kBq U-235 eq	6.37E-3	1.25E-3	7.42E-2	8.18E-2	2.58E-4	1.19E-3	1.54E-5	-3.50E-3	7.98E-2
ETP-fw	CTUe	3.55E+0	2.32E-1	2.13E+0	5.91E+0	4.79E-2	4.52E-1	2.78E-3	-1.74E+0	4.67E+0
HTP-c	CTUh	8.16E-11	8.27E-12	4.62E-11	1.36E-10	1.70E-12	5.59E-11	8.29E-14	-3.82E-11	1.55E-10
HTP-nc	CTUh	2.27E-9	2.77E-10	1.45E-9	4.00E-9	5.71E-11	6.69E-10	1.80E-12	-1.12E-9	3.60E-9
SQP	Pt	9.96E-1	2.45E-1	1.74E+0	2.98E+0	5.05E-2	3.08E-1	8.51E-3	-2.61E+0	7.35E-1

Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	2.82E-1	4.11E-3	8.96E-1	1.18E+0	8.46E-4	1.89E-2	1.27E-4	-5.16E-1	6.86E-1
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	2.82E-1	4.11E-3	8.96E-1	1.18E+0	8.46E-4	1.89E-2	1.27E-4	-5.16E-1	6.86E-1
PENRE	MJ	1.17E+1	3.04E-1	6.36E+0	1.84E+1	6.26E-2	4.15E-1	3.53E-3	-6.35E+0	1.25E+1
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	1.17E+1	3.04E-1	6.36E+0	1.84E+1	6.26E-2	4.15E-1	3.53E-3	-6.35E+0	1.25E+1
PET	MJ	1.20E+1	3.08E-1	7.26E+0	1.96E+1	6.35E-2	4.34E-1	3.65E-3	-6.87E+0	1.32E+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	3.58E-3	3.24E-5	3.56E-3	7.17E-3	6.68E-6	2.24E-4	4.09E-6	-1.98E-3	5.43E-3
Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	1.67E-6	7.32E-7	1.29E-7	2.53E-6	1.51E-7	6.51E-7	4.02E-9	-1.62E-6	1.71E-6
NHWD	kg	1.55E-2	1.77E-2	3.67E-3	3.70E-2	3.66E-3	1.96E-2	1.46E-2	-5.47E-3	6.94E-2
RWD	kg	5.61E-6	1.95E-6	1.93E-7	7.75E-6	4.01E-7	1.52E-6	2.17E-8	-3.21E-6	6.48E-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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