

Environmental Profile

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

Ecochain v3.5.80



Product: 3082714 - EK PP-RCT Reducer I/E GY 63x50
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	MND	MND	MND	MND	MND	MND	MND	MND	MND	☑	☑	☑	☑
Product stage					Use stage							End-of-Life stage				
A1 Raw material supply A2 Transport A3 Manufacturing					B1 Use B2 Maintenance B3 Repair B4 Replacement B5 Refurbishment B6 Operational energy use B7 Operational water use							C1 De-construction demolition C2 Transport C3 Waste processing C4 Disposal				
Construction process stage												Benefits and loads beyond the system boundaries				
A4 Transport gate to site A5 Assembly / Construction installation process												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	0.02	0	0.01	0	-0.01	0.02
ADPE	kg Sb-eq	2.57E-6	2.56E-7	9.97E-7	3.83E-6	5.24E-8	2.57E-7	5.81E-10	-6.53E-7	3.48E-6
ADPF	kg Sb-eq	2.72E-3	7.21E-5	7.56E-5	2.87E-3	1.48E-5	9.84E-5	8.09E-7	-1.49E-3	1.50E-3
GWP	kg CO2-eq	1.59E-1	9.82E-3	1.36E-2	1.82E-1	2.01E-3	6.52E-2	8.15E-4	-9.65E-2	1.54E-1
ODP	kg CFC-11-eq	3.79E-9	1.82E-9	2.32E-8	2.88E-8	3.73E-10	1.31E-9	1.93E-11	-3.93E-9	2.66E-8
POCP	kg ethene-eq	1.32E-4	5.89E-6	9.82E-6	1.48E-4	1.21E-6	9.88E-6	1.86E-7	-6.30E-5	9.62E-5
AP	kg SO2-eq	5.06E-4	4.23E-5	9.33E-5	6.42E-4	8.65E-6	5.04E-5	4.27E-7	-2.38E-4	4.64E-4
EP	kg PO4 3--eq	4.91E-5	8.44E-6	1.20E-5	6.96E-5	1.73E-6	8.96E-6	1.85E-7	-2.47E-5	5.58E-5
HTP	kg 1,4-DB-eq	2.59E-2	4.20E-3	1.65E-2	4.67E-2	8.60E-4	2.00E-2	6.38E-5	-1.21E-2	5.55E-2
FAETP	kg 1,4-DB-eq	7.52E-4	1.23E-4	5.97E-4	1.47E-3	2.52E-5	4.62E-4	6.89E-5	-3.32E-4	1.70E-3
MAETP	kg 1,4-DB-eq	1.76E+0	4.40E-1	1.66E+0	3.86E+0	9.00E-2	1.05E+0	6.87E-2	-7.40E-1	4.33E+0
TETP	kg 1,4-DB-eq	1.18E-4	1.49E-5	8.59E-4	9.92E-4	3.05E-6	6.12E-5	1.04E-7	-8.27E-5	9.74E-4
Environmental impact	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
GWP-total	kg CO2 eq	1.66E-1	9.91E-3	1.61E-2	1.92E-1	2.03E-3	6.73E-2	9.55E-4	-9.61E-2	1.66E-1
GWP-f	kg CO2 eq	1.65E-1	9.90E-3	1.30E-2	1.88E-1	2.03E-3	6.55E-2	9.55E-4	-9.99E-2	1.57E-1
GWP-b	kg CO2 eq	5.72E-4	6.01E-6	2.91E-3	3.49E-3	1.23E-6	1.75E-3	8.30E-7	3.87E-3	9.11E-3
GWP-luluc	kg CO2 eq	7.05E-5	3.50E-6	2.04E-4	2.78E-4	7.17E-7	1.15E-5	1.66E-8	-4.76E-5	2.42E-4
ODP	kg CFC11 eq	3.67E-9	2.28E-9	1.30E-8	1.89E-8	4.67E-10	1.55E-9	2.40E-11	-4.15E-9	1.68E-8
AP	mol H+ eq	6.12E-4	5.64E-5	1.18E-4	7.86E-4	1.15E-5	6.51E-5	5.73E-7	-2.87E-4	5.76E-4
EP-fw	kg P eq	2.79E-6	8.15E-8	4.29E-7	3.30E-6	1.67E-8	3.34E-7	7.55E-10	-1.41E-6	2.24E-6
EP-m	kg N eq	1.05E-4	2.02E-5	2.19E-5	1.47E-4	4.13E-6	1.92E-5	3.70E-7	-5.21E-5	1.18E-4
EP-T	mol N eq	1.18E-3	2.22E-4	2.71E-4	1.67E-3	4.55E-5	2.12E-4	2.33E-6	-5.79E-4	1.35E-3
POCP	kg NMVOC eq	5.19E-4	6.36E-5	6.28E-5	6.45E-4	1.30E-5	6.66E-5	8.72E-7	-2.55E-4	4.70E-4
ADP-mm	kg Sb eq	2.57E-6	2.56E-7	9.97E-7	3.83E-6	5.24E-8	2.57E-7	5.81E-10	-6.53E-7	3.48E-6
ADP-f	MJ	5.70E+0	1.52E-1	3.28E+0	9.13E+0	3.11E-2	2.02E-1	1.75E-3	-3.07E+0	6.30E+0
WDP	m3 depriv.	1.16E-1	4.66E-4	5.73E-2	1.74E-1	9.55E-5	3.92E-3	9.93E-6	-5.77E-2	1.20E-1
PM	disease inc.	5.44E-9	8.94E-10	9.76E-10	7.31E-9	1.83E-10	1.07E-9	1.20E-11	-2.62E-9	5.96E-9
IR	kBq U-235 eq	3.20E-3	6.64E-4	3.84E-2	4.22E-2	1.36E-4	6.16E-4	8.10E-6	-1.66E-3	4.13E-2
ETP-fw	CTUe	1.48E+0	1.23E-1	1.10E+0	2.70E+0	2.53E-2	2.33E-1	1.47E-3	-6.89E-1	2.27E+0
HTP-c	CTUh	4.10E-11	4.39E-12	2.38E-11	6.92E-11	8.99E-13	2.89E-11	4.36E-14	-1.84E-11	8.07E-11
HTP-nc	CTUh	1.14E-9	1.47E-10	7.51E-10	2.04E-9	3.01E-11	3.47E-10	9.49E-13	-5.31E-10	1.88E-9
SQP	Pt	3.98E-1	1.30E-1	8.98E-1	1.43E+0	2.66E-2	1.61E-1	4.49E-3	-8.34E-1	7.84E-1

Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	1.22E-1	2.18E-3	4.63E-1	5.88E-1	4.46E-4	9.90E-3	6.72E-5	-1.74E-1	4.24E-1
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	1.22E-1	2.18E-3	4.63E-1	5.88E-1	4.46E-4	9.90E-3	6.72E-5	-1.74E-1	4.24E-1
PENRE	MJ	6.12E+0	1.61E-1	3.29E+0	9.57E+0	3.30E-2	2.16E-1	1.86E-3	-3.31E+0	6.51E+0
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	6.12E+0	1.61E-1	3.29E+0	9.57E+0	3.30E-2	2.16E-1	1.86E-3	-3.31E+0	6.51E+0
PET	MJ	6.24E+0	1.64E-1	3.75E+0	1.02E+1	3.35E-2	2.26E-1	1.93E-3	-3.48E+0	6.94E+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	1.83E-3	1.72E-5	1.84E-3	3.69E-3	3.52E-6	1.17E-4	2.15E-6	-9.32E-4	2.88E-3
Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	8.13E-7	3.89E-7	6.54E-8	1.27E-6	7.96E-8	3.35E-7	2.12E-9	-8.07E-7	8.77E-7
NHWD	kg	7.55E-3	9.42E-3	1.87E-3	1.88E-2	1.93E-3	1.02E-2	7.71E-3	-2.64E-3	3.60E-2
RWD	kg	2.79E-6	1.03E-6	9.79E-8	3.92E-6	2.12E-7	7.84E-7	1.14E-8	-1.51E-6	3.42E-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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