

Environmental Profile

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

Ecochain v3.5.80



Product: 3079582 - EK PP-RCT Reducer I/E GN 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	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	0.03	0	0.01	0.03	0	0.01	0	-0.01	0.03
ADPE	kg Sb-eq	4.95E-6	4.70E-7	1.93E-6	7.35E-6	9.94E-8	4.87E-7	1.10E-9	-1.24E-6	6.69E-6
ADPF	kg Sb-eq	5.15E-3	1.32E-4	1.45E-4	5.42E-3	2.80E-5	1.87E-4	1.53E-6	-2.81E-3	2.83E-3
GWP	kg CO2-eq	3.00E-1	1.80E-2	2.62E-2	3.44E-1	3.81E-3	1.23E-1	1.55E-3	-1.83E-1	2.90E-1
ODP	kg CFC-11-eq	7.24E-9	3.34E-9	4.49E-8	5.54E-8	7.07E-10	2.49E-9	3.66E-11	-7.42E-9	5.13E-8
POCP	kg ethene-eq	2.49E-4	1.08E-5	1.89E-5	2.79E-4	2.29E-6	1.88E-5	3.52E-7	-1.20E-4	1.81E-4
AP	kg SO2-eq	9.59E-4	7.76E-5	1.80E-4	1.22E-3	1.64E-5	9.56E-5	8.09E-7	-4.52E-4	8.78E-4
EP	kg PO4 3--eq	9.34E-5	1.55E-5	2.32E-5	1.32E-4	3.28E-6	1.70E-5	3.51E-7	-4.72E-5	1.05E-4
HTP	kg 1,4-DB-eq	4.92E-2	7.71E-3	3.18E-2	8.87E-2	1.63E-3	3.80E-2	1.21E-4	-2.31E-2	1.05E-1
FAETP	kg 1,4-DB-eq	1.45E-3	2.26E-4	1.15E-3	2.82E-3	4.78E-5	8.71E-4	1.30E-4	-6.42E-4	3.23E-3
MAETP	kg 1,4-DB-eq	3.35E+0	8.07E-1	3.20E+0	7.35E+0	1.71E-1	1.98E+0	1.30E-1	-1.41E+0	8.22E+0
TETP	kg 1,4-DB-eq	2.25E-4	2.73E-5	1.66E-3	1.91E-3	5.78E-6	1.16E-4	1.98E-7	-1.61E-4	1.87E-3
Environmental impact	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
GWP-total	kg CO2 eq	3.14E-1	1.82E-2	3.10E-2	3.63E-1	3.85E-3	1.27E-1	1.81E-3	-1.81E-1	3.14E-1
GWP-f	kg CO2 eq	3.13E-1	1.82E-2	2.51E-2	3.56E-1	3.84E-3	1.23E-1	1.81E-3	-1.89E-1	2.96E-1
GWP-b	kg CO2 eq	1.12E-3	1.10E-5	5.60E-3	6.73E-3	2.33E-6	3.52E-3	1.57E-6	7.77E-3	1.80E-2
GWP-luluc	kg CO2 eq	1.35E-4	6.43E-6	3.93E-4	5.35E-4	1.36E-6	2.19E-5	3.15E-8	-9.33E-5	4.65E-4
ODP	kg CFC11 eq	7.01E-9	4.19E-9	2.50E-8	3.62E-8	8.86E-10	2.95E-9	4.55E-11	-7.83E-9	3.23E-8
AP	mol H+ eq	1.16E-3	1.03E-4	2.28E-4	1.49E-3	2.19E-5	1.24E-4	1.09E-6	-5.46E-4	1.09E-3
EP-fw	kg P eq	5.28E-6	1.49E-7	8.28E-7	6.26E-6	3.16E-8	6.34E-7	1.43E-9	-2.70E-6	4.22E-6
EP-m	kg N eq	1.98E-4	3.70E-5	4.22E-5	2.78E-4	7.83E-6	3.65E-5	7.01E-7	-9.91E-5	2.24E-4
EP-T	mol N eq	2.23E-3	4.08E-4	5.22E-4	3.16E-3	8.63E-5	4.01E-4	4.41E-6	-1.10E-3	2.55E-3
POCP	kg NMVOC eq	9.80E-4	1.17E-4	1.21E-4	1.22E-3	2.47E-5	1.26E-4	1.65E-6	-4.84E-4	8.86E-4
ADP-mm	kg Sb eq	4.95E-6	4.70E-7	1.93E-6	7.35E-6	9.94E-8	4.87E-7	1.10E-9	-1.24E-6	6.69E-6
ADP-f	MJ	1.08E+1	2.79E-1	6.34E+0	1.74E+1	5.90E-2	3.84E-1	3.32E-3	-5.81E+0	1.20E+1
WDP	m3 depriv.	2.19E-1	8.56E-4	1.11E-1	3.30E-1	1.81E-4	7.43E-3	1.90E-5	-1.10E-1	2.28E-1
PM	disease inc.	1.03E-8	1.64E-9	1.88E-9	1.38E-8	3.47E-10	2.02E-9	2.28E-11	-5.00E-9	1.12E-8
IR	kBq U-235 eq	6.05E-3	1.22E-3	7.42E-2	8.15E-2	2.58E-4	1.17E-3	1.54E-5	-3.16E-3	7.98E-2
ETP-fw	CTUe	2.85E+0	2.26E-1	2.12E+0	5.20E+0	4.79E-2	4.41E-1	2.78E-3	-1.34E+0	4.36E+0
HTP-c	CTUh	7.80E-11	8.06E-12	4.59E-11	1.32E-10	1.70E-12	5.48E-11	8.29E-14	-3.50E-11	1.54E-10
HTP-nc	CTUh	2.17E-9	2.70E-10	1.45E-9	3.89E-9	5.71E-11	6.57E-10	1.80E-12	-1.01E-9	3.59E-9
SQP	Pt	7.70E-1	2.39E-1	1.74E+0	2.74E+0	5.05E-2	3.05E-1	8.51E-3	-1.66E+0	1.45E+0

Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	2.34E-1	4.00E-3	8.96E-1	1.13E+0	8.46E-4	1.88E-2	1.27E-4	-3.43E-1	8.10E-1
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	2.34E-1	4.00E-3	8.96E-1	1.13E+0	8.46E-4	1.88E-2	1.27E-4	-3.43E-1	8.10E-1
PENRE	MJ	1.16E+1	2.96E-1	6.36E+0	1.82E+1	6.26E-2	4.09E-1	3.53E-3	-6.26E+0	1.24E+1
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	1.16E+1	2.96E-1	6.36E+0	1.82E+1	6.26E-2	4.09E-1	3.53E-3	-6.26E+0	1.24E+1
PET	MJ	1.18E+1	3.00E-1	7.25E+0	1.94E+1	6.35E-2	4.28E-1	3.65E-3	-6.61E+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	3.46E-3	3.16E-5	3.55E-3	7.04E-3	6.68E-6	2.21E-4	4.09E-6	-1.78E-3	5.49E-3
Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	1.56E-6	7.13E-7	1.24E-7	2.39E-6	1.51E-7	6.36E-7	4.02E-9	-1.52E-6	1.66E-6
NHWD	kg	1.44E-2	1.73E-2	3.54E-3	3.52E-2	3.66E-3	1.93E-2	1.46E-2	-5.04E-3	6.77E-2
RWD	kg	5.30E-6	1.90E-6	1.86E-7	7.38E-6	4.01E-7	1.49E-6	2.17E-8	-2.89E-6	6.40E-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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