

Environmental Profile

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

Ecochain v3.5.80



Product: 3082949 - EK PP-RCT Reducer I/E GY 63x25
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	0.01	0	0	0	-0.01	0.01
ADPE	kg Sb-eq	2.14E-6	2.01E-7	7.97E-7	3.13E-6	4.15E-8	2.03E-7	4.61E-10	-5.18E-7	2.86E-6
ADPF	kg Sb-eq	2.13E-3	5.66E-5	6.02E-5	2.24E-3	1.17E-5	7.78E-5	6.42E-7	-1.17E-3	1.16E-3
GWP	kg CO2-eq	1.24E-1	7.70E-3	1.09E-2	1.43E-1	1.59E-3	5.02E-2	6.46E-4	-7.55E-2	1.20E-1
ODP	kg CFC-11-eq	3.04E-9	1.43E-9	1.86E-8	2.30E-8	2.95E-10	1.04E-9	1.53E-11	-3.03E-9	2.14E-8
POCP	kg ethene-eq	1.03E-4	4.62E-6	7.83E-6	1.15E-4	9.56E-7	7.80E-6	1.47E-7	-4.98E-5	7.42E-5
AP	kg SO2-eq	3.98E-4	3.32E-5	7.46E-5	5.06E-4	6.85E-6	3.98E-5	3.39E-7	-1.88E-4	3.65E-4
EP	kg PO4 3--eq	3.88E-5	6.62E-6	9.59E-6	5.51E-5	1.37E-6	7.07E-6	1.47E-7	-1.96E-5	4.41E-5
HTP	kg 1,4-DB-eq	2.04E-2	3.30E-3	1.32E-2	3.69E-2	6.81E-4	1.58E-2	5.04E-5	-9.57E-3	4.39E-2
FAETP	kg 1,4-DB-eq	6.15E-4	9.65E-5	4.76E-4	1.19E-3	2.00E-5	3.58E-4	5.43E-5	-2.66E-4	1.35E-3
MAETP	kg 1,4-DB-eq	1.40E+0	3.45E-1	1.32E+0	3.07E+0	7.13E-2	8.16E-1	5.42E-2	-5.86E-1	3.43E+0
TETP	kg 1,4-DB-eq	9.29E-5	1.17E-5	6.87E-4	7.92E-4	2.41E-6	4.85E-5	8.31E-8	-6.63E-5	7.77E-4
Environmental impact	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
GWP-total	kg CO2 eq	1.30E-1	7.77E-3	1.29E-2	1.51E-1	1.61E-3	5.19E-2	7.56E-4	-7.51E-2	1.30E-1
GWP-f	kg CO2 eq	1.29E-1	7.77E-3	1.04E-2	1.48E-1	1.61E-3	5.04E-2	7.56E-4	-7.82E-2	1.22E-1
GWP-b	kg CO2 eq	4.97E-4	4.72E-6	2.32E-3	2.82E-3	9.75E-7	1.44E-3	6.56E-7	3.17E-3	7.43E-3
GWP-luluc	kg CO2 eq	5.57E-5	2.75E-6	1.63E-4	2.21E-4	5.68E-7	9.13E-6	1.32E-8	-3.84E-5	1.93E-4
ODP	kg CFC11 eq	2.95E-9	1.79E-9	1.04E-8	1.51E-8	3.70E-10	1.23E-9	1.90E-11	-3.19E-9	1.35E-8
AP	mol H+ eq	4.81E-4	4.42E-5	9.43E-5	6.20E-4	9.15E-6	5.14E-5	4.55E-7	-2.27E-4	4.54E-4
EP-fw	kg P eq	2.18E-6	6.39E-8	3.43E-7	2.58E-6	1.32E-8	2.64E-7	6.02E-10	-1.12E-6	1.74E-6
EP-m	kg N eq	8.21E-5	1.58E-5	1.75E-5	1.15E-4	3.27E-6	1.51E-5	2.92E-7	-4.12E-5	9.29E-5
EP-T	mol N eq	9.25E-4	1.74E-4	2.16E-4	1.32E-3	3.61E-5	1.67E-4	1.84E-6	-4.57E-4	1.06E-3
POCP	kg NMVOC eq	4.04E-4	4.99E-5	5.02E-5	5.04E-4	1.03E-5	5.25E-5	6.91E-7	-2.01E-4	3.67E-4
ADP-mm	kg Sb eq	2.13E-6	2.01E-7	7.97E-7	3.13E-6	4.15E-8	2.03E-7	4.61E-10	-5.17E-7	2.86E-6
ADP-f	MJ	4.45E+0	1.19E-1	2.62E+0	7.19E+0	2.46E-2	1.60E-1	1.39E-3	-2.41E+0	4.96E+0
WDP	m3 depriv.	9.06E-2	3.66E-4	4.58E-2	1.37E-1	7.56E-5	3.10E-3	8.27E-6	-4.58E-2	9.41E-2
PM	disease inc.	4.29E-9	7.01E-10	7.79E-10	5.77E-9	1.45E-10	8.42E-10	9.55E-12	-2.08E-9	4.68E-9
IR	kBq U-235 eq	2.50E-3	5.21E-4	3.07E-2	3.37E-2	1.08E-4	4.87E-4	6.42E-6	-1.31E-3	3.30E-2
ETP-fw	CTUe	1.18E+0	9.68E-2	8.79E-1	2.16E+0	2.00E-2	1.84E-1	1.16E-3	-5.53E-1	1.81E+0
HTP-c	CTUh	3.27E-11	3.45E-12	1.90E-11	5.51E-11	7.12E-13	2.29E-11	3.49E-14	-1.45E-11	6.43E-11
HTP-nc	CTUh	9.05E-10	1.15E-10	6.00E-10	1.62E-9	2.39E-11	2.74E-10	7.54E-13	-4.21E-10	1.50E-9
SQP	Pt	3.16E-1	1.02E-1	7.18E-1	1.14E+0	2.11E-2	1.27E-1	3.56E-3	-6.79E-1	6.09E-1

Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	9.61E-2	1.71E-3	3.71E-1	4.68E-1	3.54E-4	7.83E-3	5.31E-5	-1.41E-1	3.36E-1
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	9.61E-2	1.71E-3	3.71E-1	4.68E-1	3.54E-4	7.83E-3	5.31E-5	-1.41E-1	3.36E-1
PENRE	MJ	4.78E+0	1.27E-1	2.63E+0	7.53E+0	2.62E-2	1.71E-1	1.47E-3	-2.60E+0	5.13E+0
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	4.78E+0	1.27E-1	2.63E+0	7.53E+0	2.62E-2	1.71E-1	1.47E-3	-2.60E+0	5.13E+0
PET	MJ	4.87E+0	1.28E-1	3.00E+0	8.00E+0	2.65E-2	1.79E-1	1.53E-3	-2.74E+0	5.47E+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	1.43E-3	1.35E-5	1.47E-3	2.91E-3	2.79E-6	9.22E-5	1.71E-6	-7.40E-4	2.27E-3
Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	6.55E-7	3.05E-7	5.15E-8	1.01E-6	6.30E-8	2.65E-7	1.68E-9	-6.21E-7	7.21E-7
NHWD	kg	6.00E-3	7.39E-3	1.47E-3	1.49E-2	1.53E-3	7.99E-3	6.11E-3	-2.09E-3	2.84E-2
RWD	kg	2.19E-6	8.11E-7	7.70E-8	3.08E-6	1.68E-7	6.20E-7	9.05E-9	-1.20E-6	2.68E-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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