

Environmental Profile

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

Ecochain v3.5.80



Product: 3075837 - EK PP-RCT Reducer I/E GY 125/110
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	0.09	0.01	0.02	0.12	0	0.04	0	-0.05	0.1
ADPE	kg Sb-eq	1.63E-5	1.61E-6	6.45E-6	2.43E-5	3.43E-7	1.67E-6	3.79E-9	-4.24E-6	2.21E-5
ADPF	kg Sb-eq	1.80E-2	4.53E-4	4.90E-4	1.89E-2	9.66E-5	6.42E-4	5.29E-6	-9.76E-3	9.89E-3
GWP	kg CO2-eq	1.04E+0	6.17E-2	8.84E-2	1.19E+0	1.32E-2	4.34E-1	5.34E-3	-6.34E-1	1.01E+0
ODP	kg CFC-11-eq	2.40E-8	1.14E-8	1.50E-7	1.86E-7	2.44E-9	8.53E-9	1.26E-10	-2.58E-8	1.71E-7
POCP	kg ethene-eq	8.74E-4	3.70E-5	6.36E-5	9.75E-4	7.90E-6	6.44E-5	1.22E-6	-4.11E-4	6.37E-4
AP	kg SO2-eq	3.31E-3	2.65E-4	6.04E-4	4.18E-3	5.66E-5	3.29E-4	2.79E-6	-1.53E-3	3.03E-3
EP	kg PO4 3--eq	3.16E-4	5.30E-5	7.78E-5	4.47E-4	1.13E-5	5.84E-5	1.22E-6	-1.55E-4	3.62E-4
HTP	kg 1,4-DB-eq	1.69E-1	2.64E-2	1.07E-1	3.02E-1	5.63E-3	1.31E-1	4.18E-4	-7.78E-2	3.62E-1
FAETP	kg 1,4-DB-eq	4.61E-3	7.73E-4	3.86E-3	9.25E-3	1.65E-4	3.06E-3	4.52E-4	-1.99E-3	1.09E-2
MAETP	kg 1,4-DB-eq	1.14E+1	2.76E+0	1.07E+1	2.49E+1	5.89E-1	6.89E+0	4.51E-1	-4.74E+0	2.80E+1
TETP	kg 1,4-DB-eq	7.52E-4	9.34E-5	5.56E-3	6.40E-3	1.99E-5	4.00E-4	6.82E-7	-4.80E-4	6.35E-3
Environmental impact	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
GWP-total	kg CO2 eq	1.09E+0	6.22E-2	1.05E-1	1.26E+0	1.33E-2	4.45E-1	6.25E-3	-6.37E-1	1.08E+0
GWP-f	kg CO2 eq	1.09E+0	6.21E-2	8.44E-2	1.23E+0	1.33E-2	4.36E-1	6.25E-3	-6.56E-1	1.03E+0
GWP-b	kg CO2 eq	3.41E-3	3.77E-5	1.89E-2	2.23E-2	8.06E-6	8.64E-3	5.43E-6	1.88E-2	4.98E-2
GWP-luluc	kg CO2 eq	4.30E-4	2.20E-5	1.32E-3	1.77E-3	4.70E-6	7.54E-5	1.08E-7	-2.67E-4	1.58E-3
ODP	kg CFC11 eq	2.31E-8	1.43E-8	8.38E-8	1.21E-7	3.06E-9	1.01E-8	1.57E-10	-2.73E-8	1.07E-7
AP	mol H+ eq	3.99E-3	3.54E-4	7.63E-4	5.11E-3	7.56E-5	4.25E-4	3.75E-6	-1.85E-3	3.76E-3
EP-fw	kg P eq	1.80E-5	5.11E-7	2.78E-6	2.13E-5	1.09E-7	2.18E-6	4.93E-9	-8.66E-6	1.50E-5
EP-m	kg N eq	6.80E-4	1.27E-4	1.42E-4	9.49E-4	2.70E-5	1.25E-4	2.43E-6	-3.36E-4	7.68E-4
EP-T	mol N eq	7.65E-3	1.40E-3	1.75E-3	1.08E-2	2.98E-4	1.38E-3	1.52E-5	-3.73E-3	8.76E-3
POCP	kg NMVOC eq	3.41E-3	3.99E-4	4.07E-4	4.22E-3	8.52E-5	4.34E-4	5.71E-6	-1.66E-3	3.09E-3
ADP-mm	kg Sb eq	1.63E-5	1.61E-6	6.45E-6	2.43E-5	3.43E-7	1.67E-6	3.79E-9	-4.23E-6	2.21E-5
ADP-f	MJ	3.76E+1	9.54E-1	2.12E+1	5.98E+1	2.04E-1	1.32E+0	1.15E-2	-2.01E+1	4.12E+1
WDP	m3 depriv.	7.62E-1	2.93E-3	3.71E-1	1.14E+0	6.25E-4	2.56E-2	6.30E-5	-3.69E-1	7.94E-1
PM	disease inc.	3.53E-8	5.61E-9	6.32E-9	4.73E-8	1.20E-9	6.94E-9	7.88E-11	-1.65E-8	3.90E-8
IR	kBq U-235 eq	2.08E-2	4.17E-3	2.48E-1	2.73E-1	8.90E-4	4.01E-3	5.31E-5	-1.05E-2	2.68E-1
ETP-fw	CTUe	8.89E+0	7.75E-1	7.11E+0	1.68E+1	1.65E-1	1.51E+0	9.59E-3	-4.03E+0	1.44E+1
HTP-c	CTUh	2.65E-10	2.76E-11	1.54E-10	4.46E-10	5.88E-12	1.88E-10	2.84E-13	-1.17E-10	5.24E-10
HTP-nc	CTUh	7.37E-9	9.24E-10	4.86E-9	1.32E-8	1.97E-10	2.27E-9	6.20E-12	-3.35E-9	1.23E-8
SQP	Pt	2.37E+0	8.16E-1	5.81E+0	8.99E+0	1.74E-1	1.05E+0	2.94E-2	-4.30E+0	5.95E+0

Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	7.55E-1	1.37E-2	3.00E+0	3.77E+0	2.92E-3	6.47E-2	4.41E-4	-9.26E-1	2.91E+0
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	7.55E-1	1.37E-2	3.00E+0	3.77E+0	2.92E-3	6.47E-2	4.41E-4	-9.26E-1	2.91E+0
PENRE	MJ	4.04E+1	1.01E+0	2.13E+1	6.26E+1	2.16E-1	1.41E+0	1.22E-2	-2.17E+1	4.26E+1
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	4.04E+1	1.01E+0	2.13E+1	6.26E+1	2.16E-1	1.41E+0	1.22E-2	-2.17E+1	4.26E+1
PET	MJ	4.11E+1	1.03E+0	2.43E+1	6.64E+1	2.19E-1	1.47E+0	1.26E-2	-2.26E+1	4.55E+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	1.20E-2	1.08E-4	1.19E-2	2.40E-2	2.30E-5	7.64E-4	1.41E-5	-5.86E-3	1.90E-2
Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	5.16E-6	2.44E-6	4.26E-7	8.02E-6	5.21E-7	2.18E-6	1.39E-8	-5.31E-6	5.43E-6
NHWD	kg	4.83E-2	5.91E-2	1.21E-2	1.20E-1	1.26E-2	6.68E-2	5.05E-2	-1.68E-2	2.33E-1
RWD	kg	1.81E-5	6.49E-6	6.37E-7	2.53E-5	1.38E-6	5.10E-6	7.48E-8	-9.56E-6	2.23E-5
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