

Environmental Profile

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

Ecochain v3.5.80



Product: 3079578 - EK PP-RCT Reducer I/E GY 90x75
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	0.04	0	0.01	0	-0.02	0.04
ADPE	kg Sb-eq	5.80E-6	5.99E-7	2.39E-6	8.78E-6	1.24E-7	5.87E-7	1.37E-9	-1.48E-6	8.02E-6
ADPF	kg Sb-eq	6.38E-3	1.69E-4	1.78E-4	6.72E-3	3.49E-5	2.28E-4	1.91E-6	-3.47E-3	3.52E-3
GWP	kg CO2-eq	3.65E-1	2.30E-2	3.21E-2	4.20E-1	4.75E-3	1.52E-1	1.93E-3	-2.22E-1	3.57E-1
ODP	kg CFC-11-eq	7.77E-9	4.26E-9	5.57E-8	6.77E-8	8.81E-10	2.99E-9	4.57E-11	-8.56E-9	6.31E-8
POCP	kg ethene-eq	3.08E-4	1.38E-5	2.33E-5	3.45E-4	2.85E-6	2.26E-5	4.39E-7	-1.45E-4	2.26E-4
AP	kg SO2-eq	1.15E-3	9.88E-5	2.23E-4	1.48E-3	2.05E-5	1.16E-4	1.01E-6	-5.27E-4	1.09E-3
EP	kg PO4 3--eq	1.05E-4	1.97E-5	2.86E-5	1.53E-4	4.08E-6	2.04E-5	4.39E-7	-4.84E-5	1.30E-4
HTP	kg 1,4-DB-eq	5.78E-2	9.82E-3	3.91E-2	1.07E-1	2.03E-3	4.66E-2	1.51E-4	-2.60E-2	1.30E-1
FAETP	kg 1,4-DB-eq	1.38E-3	2.88E-4	1.41E-3	3.08E-3	5.95E-5	1.07E-3	1.63E-4	-5.17E-4	3.86E-3
MAETP	kg 1,4-DB-eq	3.84E+0	1.03E+0	3.95E+0	8.82E+0	2.13E-1	2.37E+0	1.63E-1	-1.57E+0	1.00E+1
TETP	kg 1,4-DB-eq	2.39E-4	3.48E-5	2.06E-3	2.34E-3	7.20E-6	1.43E-4	2.46E-7	-1.05E-4	2.38E-3
Environmental impact	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
GWP-total	kg CO2 eq	3.83E-1	2.32E-2	3.81E-2	4.44E-1	4.79E-3	1.53E-1	2.26E-3	-2.31E-1	3.73E-1
GWP-f	kg CO2 eq	3.81E-1	2.32E-2	3.07E-2	4.35E-1	4.79E-3	1.53E-1	2.26E-3	-2.31E-1	3.65E-1
GWP-b	kg CO2 eq	1.25E-3	1.41E-5	6.85E-3	8.11E-3	2.91E-6	3.92E-5	1.96E-6	-2.54E-4	7.90E-3
GWP-luluc	kg CO2 eq	1.12E-4	8.19E-6	4.88E-4	6.09E-4	1.70E-6	2.70E-5	3.90E-8	-4.71E-5	5.90E-4
ODP	kg CFC11 eq	7.36E-9	5.34E-9	3.10E-8	4.37E-8	1.10E-9	3.54E-9	5.67E-11	-9.07E-9	3.94E-8
AP	mol H+ eq	1.39E-3	1.32E-4	2.82E-4	1.80E-3	2.73E-5	1.49E-4	1.35E-6	-6.34E-4	1.34E-3
EP-fw	kg P eq	5.93E-6	1.91E-7	1.02E-6	7.14E-6	3.94E-8	7.80E-7	1.78E-9	-2.51E-6	5.45E-6
EP-m	kg N eq	2.30E-4	4.72E-5	5.20E-5	3.29E-4	9.76E-6	4.37E-5	8.76E-7	-1.13E-4	2.71E-4
EP-T	mol N eq	2.61E-3	5.20E-4	6.46E-4	3.77E-3	1.08E-4	4.81E-4	5.49E-6	-1.25E-3	3.12E-3
POCP	kg NMVOC eq	1.19E-3	1.49E-4	1.50E-4	1.49E-3	3.08E-5	1.52E-4	2.06E-6	-5.73E-4	1.10E-3
ADP-mm	kg Sb eq	5.80E-6	5.99E-7	2.39E-6	8.78E-6	1.24E-7	5.87E-7	1.37E-9	-1.48E-6	8.01E-6
ADP-f	MJ	1.34E+1	3.55E-1	7.86E+0	2.16E+1	7.35E-2	4.70E-1	4.14E-3	-7.16E+0	1.50E+1
WDP	m3 depriv.	2.69E-1	1.09E-3	1.37E-1	4.07E-1	2.26E-4	9.20E-3	2.28E-5	-1.23E-1	2.94E-1
PM	disease inc.	1.21E-8	2.09E-9	2.32E-9	1.65E-8	4.32E-10	2.45E-9	2.85E-11	-5.30E-9	1.41E-8
IR	kBq U-235 eq	7.09E-3	1.55E-3	9.21E-2	1.01E-1	3.21E-4	1.42E-3	1.92E-5	-3.33E-3	9.92E-2
ETP-fw	CTUe	2.27E+0	2.89E-1	2.63E+0	5.19E+0	5.97E-2	5.32E-1	3.46E-3	-9.18E-1	4.87E+0
HTP-c	CTUh	9.09E-11	1.03E-11	5.66E-11	1.58E-10	2.12E-12	6.64E-11	1.03E-13	-3.79E-11	1.89E-10
HTP-nc	CTUh	2.53E-9	3.44E-10	1.79E-9	4.67E-9	7.12E-11	8.03E-10	2.24E-12	-1.07E-9	4.47E-9
SQP	Pt	5.54E-1	3.04E-1	2.15E+0	3.01E+0	6.29E-2	3.75E-1	1.06E-2	-2.87E-1	3.17E+0

Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	2.09E-1	5.10E-3	1.11E+0	1.33E+0	1.06E-3	2.31E-2	1.59E-4	-1.05E-1	1.24E+0
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	2.09E-1	5.10E-3	1.11E+0	1.33E+0	1.06E-3	2.31E-2	1.59E-4	-1.05E-1	1.24E+0
PENRE	MJ	1.43E+1	3.77E-1	7.89E+0	2.26E+1	7.81E-2	5.01E-1	4.39E-3	-7.72E+0	1.55E+1
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	1.43E+1	3.77E-1	7.89E+0	2.26E+1	7.81E-2	5.01E-1	4.39E-3	-7.72E+0	1.55E+1
PET	MJ	1.45E+1	3.82E-1	9.00E+0	2.39E+1	7.91E-2	5.24E-1	4.55E-3	-7.82E+0	1.67E+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	4.17E-3	4.02E-5	4.39E-3	8.60E-3	8.32E-6	2.72E-4	5.09E-6	-1.85E-3	7.04E-3
Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	1.72E-6	9.09E-7	1.47E-7	2.77E-6	1.88E-7	7.68E-7	5.00E-9	-1.78E-6	1.95E-6
NHWD	kg	1.59E-2	2.20E-2	4.21E-3	4.22E-2	4.56E-3	2.36E-2	1.82E-2	-5.50E-3	8.31E-2
RWD	kg	6.13E-6	2.42E-6	2.20E-7	8.77E-6	5.00E-7	1.80E-6	2.70E-8	-3.02E-6	8.07E-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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