

Environmental Profile

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

Ecochain v3.5.80



Product: 3083449 - EK PP-RCT Reducer I/E GN 63x32
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	2.05E-6	1.87E-7	7.45E-7	2.99E-6	3.88E-8	1.91E-7	4.32E-10	-4.87E-7	2.73E-6
ADPF	kg Sb-eq	2.02E-3	5.27E-5	5.65E-5	2.13E-3	1.09E-5	7.31E-5	6.00E-7	-1.11E-3	1.11E-3
GWP	kg CO2-eq	1.19E-1	7.18E-3	1.02E-2	1.36E-1	1.49E-3	4.90E-2	6.03E-4	-7.20E-2	1.15E-1
ODP	kg CFC-11-eq	2.98E-9	1.33E-9	1.73E-8	2.16E-8	2.76E-10	9.78E-10	1.43E-11	-2.97E-9	1.99E-8
POCP	kg ethene-eq	9.85E-5	4.31E-6	7.33E-6	1.10E-4	8.93E-7	7.36E-6	1.38E-7	-4.69E-5	7.16E-5
AP	kg SO2-eq	3.83E-4	3.09E-5	6.97E-5	4.84E-4	6.41E-6	3.75E-5	3.17E-7	-1.78E-4	3.50E-4
EP	kg PO4 3--eq	3.78E-5	6.17E-6	8.97E-6	5.29E-5	1.28E-6	6.69E-6	1.37E-7	-1.88E-5	4.23E-5
HTP	kg 1,4-DB-eq	1.99E-2	3.07E-3	1.24E-2	3.53E-2	6.37E-4	1.49E-2	4.71E-5	-9.12E-3	4.17E-2
FAETP	kg 1,4-DB-eq	6.09E-4	8.99E-5	4.46E-4	1.14E-3	1.86E-5	3.46E-4	5.06E-5	-2.59E-4	1.30E-3
MAETP	kg 1,4-DB-eq	1.38E+0	3.21E-1	1.24E+0	2.94E+0	6.66E-2	7.88E-1	5.06E-2	-5.57E-1	3.29E+0
TETP	kg 1,4-DB-eq	9.13E-5	1.09E-5	6.42E-4	7.44E-4	2.26E-6	4.55E-5	7.77E-8	-6.57E-5	7.26E-4
Environmental impact	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
GWP-total	kg CO2 eq	1.24E-1	7.24E-3	1.21E-2	1.43E-1	1.50E-3	5.07E-2	7.07E-4	-7.13E-2	1.25E-1
GWP-f	kg CO2 eq	1.24E-1	7.23E-3	9.73E-3	1.41E-1	1.50E-3	4.92E-2	7.07E-4	-7.46E-2	1.18E-1
GWP-b	kg CO2 eq	4.08E-4	4.39E-6	2.18E-3	2.59E-3	9.11E-7	1.50E-3	6.13E-7	3.32E-3	7.41E-3
GWP-luluc	kg CO2 eq	5.61E-5	2.56E-6	1.52E-4	2.11E-4	5.31E-7	8.56E-6	1.24E-8	-3.85E-5	1.81E-4
ODP	kg CFC11 eq	2.90E-9	1.67E-9	9.67E-9	1.42E-8	3.46E-10	1.16E-9	1.78E-11	-3.14E-9	1.26E-8
AP	mol H+ eq	4.64E-4	4.12E-5	8.81E-5	5.93E-4	8.55E-6	4.85E-5	4.25E-7	-2.15E-4	4.36E-4
EP-fw	kg P eq	2.14E-6	5.95E-8	3.21E-7	2.52E-6	1.23E-8	2.48E-7	5.64E-10	-1.08E-6	1.70E-6
EP-m	kg N eq	7.94E-5	1.47E-5	1.64E-5	1.10E-4	3.06E-6	1.44E-5	2.73E-7	-3.92E-5	8.90E-5
EP-T	mol N eq	8.94E-4	1.62E-4	2.02E-4	1.26E-3	3.37E-5	1.58E-4	1.72E-6	-4.36E-4	1.02E-3
POCP	kg NMVOC eq	3.89E-4	4.65E-5	4.69E-5	4.82E-4	9.63E-6	4.97E-5	6.46E-7	-1.91E-4	3.52E-4
ADP-mm	kg Sb eq	2.05E-6	1.87E-7	7.45E-7	2.99E-6	3.88E-8	1.91E-7	4.32E-10	-4.87E-7	2.73E-6
ADP-f	MJ	4.22E+0	1.11E-1	2.45E+0	6.78E+0	2.30E-2	1.50E-1	1.30E-3	-2.28E+0	4.67E+0
WDP	m3 depriv.	8.66E-2	3.41E-4	4.28E-2	1.30E-1	7.07E-5	2.91E-3	7.86E-6	-4.34E-2	8.94E-2
PM	disease inc.	4.13E-9	6.53E-10	7.29E-10	5.51E-9	1.35E-10	7.93E-10	8.93E-12	-1.98E-9	4.47E-9
IR	kBq U-235 eq	2.42E-3	4.85E-4	2.87E-2	3.16E-2	1.01E-4	4.58E-4	5.99E-6	-1.26E-3	3.09E-2
ETP-fw	CTUe	1.19E+0	9.02E-2	8.21E-1	2.10E+0	1.87E-2	1.73E-1	1.09E-3	-5.46E-1	1.75E+0
HTP-c	CTUh	3.16E-11	3.21E-12	1.78E-11	5.26E-11	6.66E-13	2.18E-11	3.27E-14	-1.39E-11	6.12E-11
HTP-nc	CTUh	8.75E-10	1.07E-10	5.61E-10	1.54E-9	2.23E-11	2.59E-10	7.05E-13	-4.02E-10	1.42E-9
SQP	Pt	3.21E-1	9.50E-2	6.71E-1	1.09E+0	1.97E-2	1.19E-1	3.32E-3	-7.00E-1	5.29E-1

Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	9.55E-2	1.59E-3	3.46E-1	4.43E-1	3.30E-4	7.34E-3	4.95E-5	-1.44E-1	3.07E-1
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	9.55E-2	1.59E-3	3.46E-1	4.43E-1	3.30E-4	7.34E-3	4.95E-5	-1.44E-1	3.07E-1
PENRE	MJ	4.53E+0	1.18E-1	2.46E+0	7.11E+0	2.45E-2	1.60E-1	1.38E-3	-2.46E+0	4.83E+0
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	4.53E+0	1.18E-1	2.46E+0	7.11E+0	2.45E-2	1.60E-1	1.38E-3	-2.46E+0	4.83E+0
PET	MJ	4.63E+0	1.19E-1	2.80E+0	7.55E+0	2.48E-2	1.68E-1	1.43E-3	-2.60E+0	5.14E+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	1.38E-3	1.26E-5	1.37E-3	2.77E-3	2.61E-6	8.67E-5	1.59E-6	-7.07E-4	2.16E-3
Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	6.37E-7	2.84E-7	4.90E-8	9.70E-7	5.89E-8	2.50E-7	1.58E-9	-6.10E-7	6.70E-7
NHWD	kg	5.90E-3	6.88E-3	1.40E-3	1.42E-2	1.43E-3	7.59E-3	5.71E-3	-1.99E-3	2.69E-2
RWD	kg	2.12E-6	7.55E-7	7.33E-8	2.95E-6	1.57E-7	5.84E-7	8.46E-9	-1.15E-6	2.55E-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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