

Environmental Profile

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

Ecochain v3.5.80



Product: 3082239 - EK PP-RCT Elbow 90° GN 40
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	0.02	0	0	0	-0.01	0.02
ADPE	kg Sb-eq	2.69E-6	2.24E-7	1.42E-6	4.34E-6	4.77E-8	2.32E-7	5.28E-10	-5.91E-7	4.02E-6
ADPF	kg Sb-eq	2.44E-3	6.31E-5	9.63E-5	2.60E-3	1.34E-5	8.91E-5	7.36E-7	-1.34E-3	1.36E-3
GWP	kg CO2-eq	1.42E-1	8.59E-3	1.75E-2	1.68E-1	1.83E-3	5.71E-2	7.41E-4	-8.62E-2	1.42E-1
ODP	kg CFC-11-eq	3.42E-9	1.59E-9	3.32E-8	3.82E-8	3.39E-10	1.18E-9	1.76E-11	-3.43E-9	3.63E-8
POCP	kg ethene-eq	1.18E-4	5.15E-6	1.32E-5	1.36E-4	1.10E-6	8.92E-6	1.69E-7	-5.69E-5	8.93E-5
AP	kg SO2-eq	4.55E-4	3.70E-5	1.30E-4	6.22E-4	7.87E-6	4.55E-5	3.88E-7	-2.14E-4	4.62E-4
EP	kg PO4 3--eq	4.41E-5	7.38E-6	1.64E-5	6.79E-5	1.57E-6	8.07E-6	1.68E-7	-2.20E-5	5.57E-5
HTP	kg 1,4-DB-eq	2.37E-2	3.67E-3	2.17E-2	4.90E-2	7.82E-4	1.81E-2	5.79E-5	-1.09E-2	5.71E-2
FAETP	kg 1,4-DB-eq	6.78E-4	1.08E-4	7.91E-4	1.58E-3	2.29E-5	4.07E-4	6.25E-5	-2.94E-4	1.78E-3
MAETP	kg 1,4-DB-eq	1.58E+0	3.84E-1	2.29E+0	4.25E+0	8.18E-2	9.27E-1	6.24E-2	-6.65E-1	4.66E+0
TETP	kg 1,4-DB-eq	1.08E-4	1.30E-5	1.23E-3	1.35E-3	2.77E-6	5.56E-5	9.51E-8	-7.25E-5	1.34E-3
Environmental impact	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
GWP-total	kg CO2 eq	1.49E-1	8.66E-3	2.08E-2	1.78E-1	1.84E-3	5.88E-2	8.68E-4	-8.60E-2	1.54E-1
GWP-f	kg CO2 eq	1.48E-1	8.66E-3	1.69E-2	1.74E-1	1.84E-3	5.74E-2	8.68E-4	-8.93E-2	1.44E-1
GWP-b	kg CO2 eq	5.89E-4	5.26E-6	3.67E-3	4.26E-3	1.12E-6	1.49E-3	7.54E-7	3.27E-3	9.02E-3
GWP-luluc	kg CO2 eq	6.15E-5	3.06E-6	2.92E-4	3.56E-4	6.52E-7	1.05E-5	1.51E-8	-4.15E-5	3.26E-4
ODP	kg CFC11 eq	3.31E-9	2.00E-9	1.84E-8	2.37E-8	4.25E-10	1.40E-9	2.18E-11	-3.61E-9	2.19E-8
AP	mol H+ eq	5.50E-4	4.93E-5	1.65E-4	7.64E-4	1.05E-5	5.88E-5	5.21E-7	-2.59E-4	5.75E-4
EP-fw	kg P eq	2.47E-6	7.12E-8	5.86E-7	3.12E-6	1.52E-8	3.03E-7	6.88E-10	-1.25E-6	2.19E-6
EP-m	kg N eq	9.36E-5	1.76E-5	2.96E-5	1.41E-4	3.76E-6	1.73E-5	3.36E-7	-4.68E-5	1.15E-4
EP-T	mol N eq	1.06E-3	1.94E-4	3.76E-4	1.63E-3	4.14E-5	1.90E-4	2.11E-6	-5.20E-4	1.35E-3
POCP	kg NMVOC eq	4.63E-4	5.56E-5	8.58E-5	6.04E-4	1.18E-5	6.00E-5	7.93E-7	-2.30E-4	4.47E-4
ADP-mm	kg Sb eq	2.69E-6	2.24E-7	1.42E-6	4.33E-6	4.77E-8	2.32E-7	5.28E-10	-5.91E-7	4.02E-6
ADP-f	MJ	5.11E+0	1.33E-1	4.69E+0	9.93E+0	2.83E-2	1.83E-1	1.59E-3	-2.76E+0	7.38E+0
WDP	m3 depriv.	1.03E-1	4.08E-4	7.89E-2	1.83E-1	8.68E-5	3.55E-3	9.21E-6	-5.20E-2	1.34E-1
PM	disease inc.	4.91E-9	7.81E-10	1.31E-9	7.00E-9	1.66E-10	9.63E-10	1.10E-11	-2.35E-9	5.79E-9
IR	kBq U-235 eq	2.85E-3	5.81E-4	5.51E-2	5.86E-2	1.24E-4	5.57E-4	7.37E-6	-1.48E-3	5.78E-2
ETP-fw	CTUe	1.31E+0	1.08E-1	1.55E+0	2.97E+0	2.30E-2	2.10E-1	1.33E-3	-6.06E-1	2.60E+0
HTP-c	CTUh	3.85E-11	3.84E-12	3.24E-11	7.47E-11	8.17E-13	2.60E-11	3.98E-14	-1.64E-11	8.52E-11
HTP-nc	CTUh	1.04E-9	1.29E-10	1.05E-9	2.22E-9	2.74E-11	3.13E-10	8.63E-13	-4.76E-10	2.09E-9
SQP	Pt	3.61E-1	1.14E-1	1.28E+0	1.76E+0	2.42E-2	1.46E-1	4.08E-3	-7.13E-1	1.22E+0

Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	1.07E-1	1.91E-3	6.65E-1	7.74E-1	4.06E-4	8.97E-3	6.10E-5	-1.50E-1	6.34E-1
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	1.07E-1	1.91E-3	6.65E-1	7.74E-1	4.06E-4	8.97E-3	6.10E-5	-1.50E-1	6.34E-1
PENRE	MJ	5.48E+0	1.41E-1	4.70E+0	1.03E+1	3.00E-2	1.95E-1	1.69E-3	-2.98E+0	7.57E+0
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	5.48E+0	1.41E-1	4.70E+0	1.03E+1	3.00E-2	1.95E-1	1.69E-3	-2.98E+0	7.57E+0
PET	MJ	5.59E+0	1.43E-1	5.37E+0	1.11E+1	3.04E-2	2.04E-1	1.75E-3	-3.13E+0	8.21E+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	1.62E-3	1.50E-5	2.56E-3	4.20E-3	3.20E-6	1.06E-4	1.96E-6	-8.35E-4	3.48E-3
Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	7.91E-7	3.40E-7	5.87E-8	1.19E-6	7.23E-8	3.03E-7	1.93E-9	-7.03E-7	8.64E-7
NHWD	kg	7.23E-3	8.24E-3	1.70E-3	1.72E-2	1.75E-3	9.13E-3	7.01E-3	-2.37E-3	3.27E-2
RWD	kg	2.50E-6	9.04E-7	8.78E-8	3.49E-6	1.92E-7	7.09E-7	1.04E-8	-1.35E-6	3.05E-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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