

Environmental Profile

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

Ecochain v3.5.80



Product: 3079611 - EK PP-RCT ELBOW 90° GY 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	0.18	0.01	0.04	0.23	0	0.07	0	-0.1	0.21
ADPE	kg Sb-eq	3.26E-5	3.16E-6	1.35E-5	4.93E-5	6.93E-7	3.38E-6	7.65E-9	-8.60E-6	4.48E-5
ADPF	kg Sb-eq	3.58E-2	8.91E-4	1.01E-3	3.77E-2	1.95E-4	1.30E-3	1.07E-5	-1.95E-2	1.97E-2
GWP	kg CO2-eq	2.08E+0	1.21E-1	1.83E-1	2.38E+0	2.66E-2	8.46E-1	1.08E-2	-1.27E+0	2.00E+0
ODP	kg CFC-11-eq	4.82E-8	2.25E-8	3.14E-7	3.85E-7	4.92E-9	1.73E-8	2.55E-10	-5.09E-8	3.56E-7
POCP	kg ethene-eq	1.73E-3	7.28E-5	1.32E-4	1.93E-3	1.59E-5	1.30E-4	2.45E-6	-8.29E-4	1.25E-3
AP	kg SO2-eq	6.57E-3	5.22E-4	1.26E-3	8.36E-3	1.14E-4	6.63E-4	5.63E-6	-3.12E-3	6.02E-3
EP	kg PO4 3--eq	6.32E-4	1.04E-4	1.62E-4	8.99E-4	2.28E-5	1.18E-4	2.45E-6	-3.22E-4	7.20E-4
HTP	kg 1,4-DB-eq	3.35E-1	5.19E-2	2.22E-1	6.09E-1	1.14E-2	2.64E-1	8.43E-4	-1.59E-1	7.26E-1
FAETP	kg 1,4-DB-eq	9.40E-3	1.52E-3	8.03E-3	1.90E-2	3.33E-4	6.02E-3	9.13E-4	-4.30E-3	2.19E-2
MAETP	kg 1,4-DB-eq	2.24E+1	5.43E+0	2.24E+1	5.02E+1	1.19E+0	1.37E+1	9.11E-1	-9.70E+0	5.62E+1
TETP	kg 1,4-DB-eq	1.51E-3	1.84E-4	1.16E-2	1.33E-2	4.02E-5	8.07E-4	1.38E-6	-1.06E-3	1.31E-2
Environmental impact	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
GWP-total	kg CO2 eq	2.17E+0	1.22E-1	2.17E-1	2.51E+0	2.68E-2	8.72E-1	1.26E-2	-1.26E+0	2.16E+0
GWP-f	kg CO2 eq	2.16E+0	1.22E-1	1.75E-1	2.46E+0	2.68E-2	8.50E-1	1.26E-2	-1.31E+0	2.04E+0
GWP-b	kg CO2 eq	7.98E-3	7.43E-5	3.90E-2	4.71E-2	1.63E-5	2.19E-2	1.10E-5	4.81E-2	1.17E-1
GWP-luluc	kg CO2 eq	8.93E-4	4.33E-5	2.76E-3	3.69E-3	9.47E-6	1.52E-4	2.17E-7	-6.08E-4	3.25E-3
ODP	kg CFC11 eq	4.64E-8	2.82E-8	1.75E-7	2.50E-7	6.17E-9	2.04E-8	3.17E-10	-5.38E-8	2.23E-7
AP	mol H+ eq	7.94E-3	6.97E-4	1.59E-3	1.02E-2	1.52E-4	8.57E-4	7.56E-6	-3.77E-3	7.48E-3
EP-fw	kg P eq	3.58E-5	1.01E-6	5.79E-6	4.26E-5	2.20E-7	4.41E-6	9.93E-9	-1.83E-5	2.89E-5
EP-m	kg N eq	1.36E-3	2.49E-4	2.95E-4	1.90E-3	5.46E-5	2.52E-4	4.90E-6	-6.83E-4	1.53E-3
EP-T	mol N eq	1.53E-2	2.75E-3	3.66E-3	2.17E-2	6.01E-4	2.78E-3	3.07E-5	-7.59E-3	1.75E-2
POCP	kg NMVOC eq	6.77E-3	7.85E-4	8.47E-4	8.40E-3	1.72E-4	8.75E-4	1.15E-5	-3.35E-3	6.11E-3
ADP-mm	kg Sb eq	3.26E-5	3.16E-6	1.35E-5	4.93E-5	6.93E-7	3.38E-6	7.65E-9	-8.60E-6	4.48E-5
ADP-f	MJ	7.51E+1	1.88E+0	4.44E+1	1.21E+2	4.11E-1	2.67E+0	2.31E-2	-4.04E+1	8.41E+1
WDP	m3 depriv.	1.51E+0	5.76E-3	7.74E-1	2.29E+0	1.26E-3	5.17E-2	1.26E-4	-7.57E-1	1.59E+0
PM	disease inc.	7.07E-8	1.10E-8	1.31E-8	9.49E-8	2.42E-9	1.40E-8	1.59E-10	-3.43E-8	7.72E-8
IR	kBq U-235 eq	4.14E-2	8.20E-3	5.20E-1	5.70E-1	1.80E-3	8.11E-3	1.07E-4	-2.17E-2	5.58E-1
ETP-fw	CTUe	1.87E+1	1.52E+0	1.49E+1	3.50E+1	3.34E-1	3.06E+0	1.94E-2	-8.87E+0	2.96E+1
HTP-c	CTUh	5.28E-10	5.42E-11	3.21E-10	9.03E-10	1.19E-11	3.76E-10	5.72E-13	-2.40E-10	1.05E-9
HTP-nc	CTUh	1.47E-8	1.82E-9	1.02E-8	2.67E-8	3.98E-10	4.55E-9	1.25E-11	-6.94E-9	2.47E-8
SQP	Pt	5.03E+0	1.61E+0	1.22E+1	1.88E+1	3.52E-1	2.12E+0	5.93E-2	-1.05E+1	1.09E+1

Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	1.57E+0	2.69E-2	6.28E+0	7.87E+0	5.90E-3	1.31E-1	8.90E-4	-2.20E+0	5.81E+0
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	1.57E+0	2.69E-2	6.28E+0	7.87E+0	5.90E-3	1.31E-1	8.90E-4	-2.20E+0	5.81E+0
PENRE	MJ	8.06E+1	1.99E+0	4.45E+1	1.27E+2	4.36E-1	2.84E+0	2.45E-2	-4.35E+1	8.69E+1
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	8.06E+1	1.99E+0	4.45E+1	1.27E+2	4.36E-1	2.84E+0	2.45E-2	-4.35E+1	8.69E+1
PET	MJ	8.21E+1	2.02E+0	5.08E+1	1.35E+2	4.42E-1	2.97E+0	2.54E-2	-4.57E+1	9.27E+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	2.37E-2	2.12E-4	2.49E-2	4.88E-2	4.65E-5	1.54E-3	2.85E-5	-1.22E-2	3.82E-2
Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	1.04E-5	4.80E-6	8.57E-7	1.61E-5	1.05E-6	4.41E-6	2.79E-8	-1.05E-5	1.11E-5
NHWD	kg	9.65E-2	1.16E-1	2.45E-2	2.37E-1	2.55E-2	1.33E-1	1.02E-1	-3.46E-2	4.63E-1
RWD	kg	3.62E-5	1.28E-5	1.28E-6	5.03E-5	2.79E-6	1.03E-5	1.51E-7	-1.97E-5	4.38E-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



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