

Environmental Profile

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

Ecochain v3.5.80



Product: 3079514 - EK PP-RCT ELBOW 45° GY 90
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	0.07	0.01	0.02	0.1	0	0.03	0	-0.04	0.09
ADPE	kg Sb-eq	1.35E-5	1.27E-6	5.39E-6	2.01E-5	2.78E-7	1.33E-6	3.07E-9	-3.33E-6	1.84E-5
ADPF	kg Sb-eq	1.50E-2	3.58E-4	4.05E-4	1.57E-2	7.82E-5	5.16E-4	4.28E-6	-8.03E-3	8.28E-3
GWP	kg CO2-eq	8.67E-1	4.87E-2	7.31E-2	9.88E-1	1.07E-2	3.82E-1	4.32E-3	-5.25E-1	8.61E-1
ODP	kg CFC-11-eq	1.88E-8	9.04E-9	1.26E-7	1.53E-7	1.98E-9	6.79E-9	1.02E-10	-2.15E-8	1.41E-7
POCP	kg ethene-eq	7.41E-4	2.92E-5	5.28E-5	8.23E-4	6.39E-6	5.16E-5	9.84E-7	-3.30E-4	5.52E-4
AP	kg SO2-eq	2.77E-3	2.10E-4	5.04E-4	3.48E-3	4.58E-5	2.64E-4	2.26E-6	-1.20E-3	2.60E-3
EP	kg PO4 3--eq	2.55E-4	4.19E-5	6.47E-5	3.61E-4	9.16E-6	4.69E-5	9.84E-7	-1.11E-4	3.08E-4
HTP	kg 1,4-DB-eq	1.41E-1	2.08E-2	8.88E-2	2.51E-1	4.56E-3	1.06E-1	3.38E-4	-5.97E-2	3.02E-1
FAETP	kg 1,4-DB-eq	3.38E-3	6.11E-4	3.21E-3	7.20E-3	1.33E-4	2.64E-3	3.66E-4	-1.17E-3	9.16E-3
MAETP	kg 1,4-DB-eq	9.58E+0	2.18E+0	8.94E+0	2.07E+1	4.77E-1	5.76E+0	3.65E-1	-3.59E+0	2.37E+1
TETP	kg 1,4-DB-eq	5.92E-4	7.39E-5	4.65E-3	5.32E-3	1.61E-5	3.23E-4	5.52E-7	-2.39E-4	5.42E-3
Environmental impact	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
GWP-total	kg CO2 eq	9.06E-1	4.92E-2	8.66E-2	1.04E+0	1.07E-2	3.84E-1	5.06E-3	-5.44E-1	8.97E-1
GWP-f	kg CO2 eq	9.04E-1	4.91E-2	6.99E-2	1.02E+0	1.07E-2	3.84E-1	5.06E-3	-5.43E-1	8.80E-1
GWP-b	kg CO2 eq	1.57E-3	2.98E-5	1.56E-2	1.72E-2	6.52E-6	3.02E-5	4.40E-6	-7.18E-4	1.65E-2
GWP-luluc	kg CO2 eq	2.89E-4	1.74E-5	1.10E-3	1.41E-3	3.80E-6	6.09E-5	8.74E-8	-1.06E-4	1.37E-3
ODP	kg CFC11 eq	1.79E-8	1.13E-8	7.01E-8	9.93E-8	2.47E-9	8.03E-9	1.27E-10	-2.30E-8	8.70E-8
AP	mol H+ eq	3.33E-3	2.80E-4	6.37E-4	4.24E-3	6.12E-5	3.41E-4	3.04E-6	-1.44E-3	3.21E-3
EP-fw	kg P eq	1.49E-5	4.04E-7	2.31E-6	1.76E-5	8.84E-8	1.76E-6	3.99E-9	-5.68E-6	1.37E-5
EP-m	kg N eq	5.55E-4	1.00E-4	1.18E-4	7.73E-4	2.19E-5	1.01E-4	1.96E-6	-2.60E-4	6.38E-4
EP-T	mol N eq	6.29E-3	1.10E-3	1.46E-3	8.85E-3	2.41E-4	1.11E-3	1.23E-5	-2.87E-3	7.34E-3
POCP	kg NMVOC eq	2.86E-3	3.15E-4	3.39E-4	3.51E-3	6.90E-5	3.49E-4	4.62E-6	-1.31E-3	2.62E-3
ADP-mm	kg Sb eq	1.35E-5	1.27E-6	5.39E-6	2.01E-5	2.78E-7	1.33E-6	3.07E-9	-3.33E-6	1.84E-5
ADP-f	MJ	3.13E+1	7.54E-1	1.77E+1	4.97E+1	1.65E-1	1.06E+0	9.28E-3	-1.65E+1	3.45E+1
WDP	m3 depriv.	6.40E-1	2.31E-3	3.09E-1	9.51E-1	5.06E-4	2.07E-2	5.11E-5	-2.77E-1	6.95E-1
PM	disease inc.	2.88E-8	4.43E-9	5.25E-9	3.85E-8	9.69E-10	5.56E-9	6.38E-11	-1.20E-8	3.31E-8
IR	kBq U-235 eq	1.72E-2	3.30E-3	2.08E-1	2.28E-1	7.21E-4	3.21E-3	4.29E-5	-7.62E-3	2.25E-1
ETP-fw	CTUe	5.72E+0	6.12E-1	5.94E+0	1.23E+1	1.34E-1	1.21E+0	7.77E-3	-2.09E+0	1.15E+1
HTP-c	CTUh	2.19E-10	2.18E-11	1.28E-10	3.69E-10	4.76E-12	1.54E-10	2.30E-13	-8.69E-11	4.41E-10
HTP-nc	CTUh	6.06E-9	7.30E-10	4.06E-9	1.09E-8	1.60E-10	1.84E-9	5.02E-12	-2.42E-9	1.04E-8
SQP	Pt	1.44E+0	6.45E-1	4.86E+0	6.95E+0	1.41E-1	8.48E-1	2.38E-2	-6.32E-1	7.33E+0

Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	5.21E-1	1.08E-2	2.51E+0	3.04E+0	2.37E-3	5.21E-2	3.57E-4	-2.33E-1	2.86E+0
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	5.21E-1	1.08E-2	2.51E+0	3.04E+0	2.37E-3	5.21E-2	3.57E-4	-2.33E-1	2.86E+0
PENRE	MJ	3.35E+1	8.01E-1	1.78E+1	5.21E+1	1.75E-1	1.13E+0	9.85E-3	-1.78E+1	3.56E+1
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	3.35E+1	8.01E-1	1.78E+1	5.21E+1	1.75E-1	1.13E+0	9.85E-3	-1.78E+1	3.56E+1
PET	MJ	3.41E+1	8.11E-1	2.03E+1	5.52E+1	1.77E-1	1.18E+0	1.02E-2	-1.80E+1	3.85E+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	1.02E-2	8.53E-5	9.94E-3	2.02E-2	1.87E-5	6.20E-4	1.14E-5	-4.18E-3	1.67E-2
Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	4.09E-6	1.93E-6	3.42E-7	6.36E-6	4.22E-7	1.75E-6	1.12E-8	-4.50E-6	4.05E-6
NHWD	kg	3.96E-2	4.67E-2	9.77E-3	9.61E-2	1.02E-2	5.51E-2	4.08E-2	-1.25E-2	1.90E-1
RWD	kg	1.48E-5	5.13E-6	5.12E-7	2.05E-5	1.12E-6	4.07E-6	6.05E-8	-6.95E-6	1.88E-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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