

Environmental Profile

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

Ecochain v3.5.80



Product: 3082109 - EK PP-RCT ELBOW 45° GY 63
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	5.92E-6	6.14E-7	2.48E-6	9.02E-6	1.29E-7	6.08E-7	1.42E-9	-1.54E-6	8.22E-6
ADPF	kg Sb-eq	6.54E-3	1.73E-4	1.84E-4	6.90E-3	3.62E-5	2.37E-4	1.98E-6	-3.58E-3	3.60E-3
GWP	kg CO2-eq	3.73E-1	2.36E-2	3.33E-2	4.30E-1	4.94E-3	1.53E-1	2.00E-3	-2.28E-1	3.62E-1
ODP	kg CFC-11-eq	7.87E-9	4.37E-9	5.78E-8	7.01E-8	9.15E-10	3.09E-9	4.74E-11	-8.60E-9	6.55E-8
POCP	kg ethene-eq	3.13E-4	1.41E-5	2.42E-5	3.51E-4	2.96E-6	2.34E-5	4.56E-7	-1.50E-4	2.28E-4
AP	kg SO2-eq	1.17E-3	1.01E-4	2.31E-4	1.51E-3	2.12E-5	1.20E-4	1.05E-6	-5.45E-4	1.10E-3
EP	kg PO4 3--eq	1.06E-4	2.02E-5	2.97E-5	1.56E-4	4.24E-6	2.11E-5	4.56E-7	-5.00E-5	1.32E-4
HTP	kg 1,4-DB-eq	5.84E-2	1.01E-2	4.05E-2	1.09E-1	2.11E-3	4.82E-2	1.57E-4	-2.68E-2	1.33E-1
FAETP	kg 1,4-DB-eq	1.39E-3	2.95E-4	1.47E-3	3.15E-3	6.18E-5	1.08E-3	1.70E-4	-5.37E-4	3.93E-3
MAETP	kg 1,4-DB-eq	3.85E+0	1.05E+0	4.10E+0	9.01E+0	2.21E-1	2.41E+0	1.69E-1	-1.63E+0	1.02E+1
TETP	kg 1,4-DB-eq	2.41E-4	3.57E-5	2.14E-3	2.42E-3	7.48E-6	1.49E-4	2.56E-7	-1.09E-4	2.47E-3
Environmental impact	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
GWP-total	kg CO2 eq	3.91E-1	2.38E-2	3.95E-2	4.54E-1	4.98E-3	1.54E-1	2.34E-3	-2.36E-1	3.79E-1
GWP-f	kg CO2 eq	3.90E-1	2.37E-2	3.19E-2	4.45E-1	4.97E-3	1.54E-1	2.34E-3	-2.36E-1	3.70E-1
GWP-b	kg CO2 eq	1.46E-3	1.44E-5	7.09E-3	8.56E-3	3.02E-6	7.58E-5	2.04E-6	-1.81E-4	8.46E-3
GWP-luluc	kg CO2 eq	1.12E-4	8.40E-6	5.07E-4	6.27E-4	1.76E-6	2.80E-5	4.04E-8	-4.93E-5	6.08E-4
ODP	kg CFC11 eq	7.44E-9	5.47E-9	3.22E-8	4.51E-8	1.15E-9	3.66E-9	5.89E-11	-9.09E-9	4.09E-8
AP	mol H+ eq	1.41E-3	1.35E-4	2.93E-4	1.84E-3	2.83E-5	1.54E-4	1.41E-6	-6.56E-4	1.37E-3
EP-fw	kg P eq	5.96E-6	1.95E-7	1.06E-6	7.21E-6	4.09E-8	8.08E-7	1.85E-9	-2.61E-6	5.46E-6
EP-m	kg N eq	2.34E-4	4.84E-5	5.40E-5	3.36E-4	1.01E-5	4.50E-5	9.10E-7	-1.16E-4	2.76E-4
EP-T	mol N eq	2.65E-3	5.33E-4	6.71E-4	3.85E-3	1.12E-4	4.96E-4	5.70E-6	-1.29E-3	3.18E-3
POCP	kg NMVOC eq	1.21E-3	1.52E-4	1.55E-4	1.52E-3	3.19E-5	1.57E-4	2.14E-6	-5.92E-4	1.11E-3
ADP-mm	kg Sb eq	5.92E-6	6.14E-7	2.48E-6	9.02E-6	1.29E-7	6.08E-7	1.42E-9	-1.54E-6	8.22E-6
ADP-f	MJ	1.37E+1	3.65E-1	8.17E+0	2.22E+1	7.64E-2	4.87E-1	4.30E-3	-7.38E+0	1.54E+1
WDP	m3 depriv.	2.75E-1	1.12E-3	1.42E-1	4.18E-1	2.34E-4	9.53E-3	2.35E-5	-1.27E-1	3.00E-1
PM	disease inc.	1.23E-8	2.14E-9	2.40E-9	1.68E-8	4.49E-10	2.53E-9	2.96E-11	-5.50E-9	1.43E-8
IR	kBq U-235 eq	7.19E-3	1.59E-3	9.57E-2	1.04E-1	3.34E-4	1.47E-3	1.99E-5	-3.45E-3	1.03E-1
ETP-fw	CTUe	2.28E+0	2.96E-1	2.73E+0	5.31E+0	6.20E-2	5.51E-1	3.60E-3	-9.54E-1	4.97E+0
HTP-c	CTUh	9.24E-11	1.05E-11	5.88E-11	1.62E-10	2.21E-12	6.82E-11	1.06E-13	-3.92E-11	1.93E-10
HTP-nc	CTUh	2.57E-9	3.53E-10	1.86E-9	4.79E-9	7.39E-11	8.28E-10	2.32E-12	-1.11E-9	4.58E-9
SQP	Pt	5.51E-1	3.12E-1	2.24E+0	3.10E+0	6.53E-2	3.89E-1	1.10E-2	-3.11E-1	3.25E+0

Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	2.10E-1	5.23E-3	1.15E+0	1.37E+0	1.10E-3	2.40E-2	1.65E-4	-1.11E-1	1.28E+0
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	2.10E-1	5.23E-3	1.15E+0	1.37E+0	1.10E-3	2.40E-2	1.65E-4	-1.11E-1	1.28E+0
PENRE	MJ	1.47E+1	3.87E-1	8.19E+0	2.33E+1	8.11E-2	5.19E-1	4.56E-3	-7.95E+0	1.59E+1
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	1.47E+1	3.87E-1	8.19E+0	2.33E+1	8.11E-2	5.19E-1	4.56E-3	-7.95E+0	1.59E+1
PET	MJ	1.49E+1	3.92E-1	9.35E+0	2.47E+1	8.22E-2	5.43E-1	4.73E-3	-8.06E+0	1.72E+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	4.22E-3	4.12E-5	4.56E-3	8.82E-3	8.64E-6	2.82E-4	5.29E-6	-1.92E-3	7.20E-3
Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	1.75E-6	9.32E-7	1.51E-7	2.83E-6	1.95E-7	7.95E-7	5.20E-9	-1.78E-6	2.04E-6
NHWD	kg	1.60E-2	2.26E-2	4.33E-3	4.30E-2	4.73E-3	2.43E-2	1.89E-2	-5.69E-3	8.52E-2
RWD	kg	6.22E-6	2.48E-6	2.27E-7	8.93E-6	5.19E-7	1.86E-6	2.80E-8	-3.12E-6	8.22E-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