

Environmental Profile

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

Ecochain v3.5.80



Product: 3085529 - EK PP-RCT Three-way Elbow GY 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	0.02	0	0	0.03	0	0.01	0	-0.01	0.02
ADPE	kg Sb-eq	3.78E-6	3.70E-7	1.45E-6	5.59E-6	7.49E-8	3.75E-7	8.30E-10	-9.60E-7	5.09E-6
ADPF	kg Sb-eq	3.91E-3	1.04E-4	1.10E-4	4.12E-3	2.11E-5	1.42E-4	1.16E-6	-2.14E-3	2.15E-3
GWP	kg CO2-eq	2.30E-1	1.42E-2	1.99E-2	2.64E-1	2.87E-3	9.33E-2	1.16E-3	-1.40E-1	2.22E-1
ODP	kg CFC-11-eq	5.86E-9	2.63E-9	3.37E-8	4.22E-8	5.33E-10	1.92E-9	2.76E-11	-5.89E-9	3.88E-8
POCP	kg ethene-eq	1.90E-4	8.52E-6	1.43E-5	2.13E-4	1.72E-6	1.44E-5	2.65E-7	-9.16E-5	1.38E-4
AP	kg SO2-eq	7.37E-4	6.11E-5	1.36E-4	9.34E-4	1.24E-5	7.34E-5	6.10E-7	-3.54E-4	6.66E-4
EP	kg PO4 3--eq	7.45E-5	1.22E-5	1.75E-5	1.04E-4	2.47E-6	1.31E-5	2.65E-7	-3.95E-5	8.05E-5
HTP	kg 1,4-DB-eq	3.83E-2	6.07E-3	2.41E-2	6.85E-2	1.23E-3	2.89E-2	9.10E-5	-1.84E-2	8.03E-2
FAETP	kg 1,4-DB-eq	1.23E-3	1.78E-4	8.70E-4	2.28E-3	3.60E-5	6.65E-4	9.83E-5	-5.90E-4	2.49E-3
MAETP	kg 1,4-DB-eq	2.63E+0	6.35E-1	2.41E+0	5.67E+0	1.29E-1	1.53E+0	9.81E-2	-1.13E+0	6.30E+0
TETP	kg 1,4-DB-eq	1.84E-4	2.15E-5	1.25E-3	1.45E-3	4.35E-6	8.79E-5	1.49E-7	-1.57E-4	1.39E-3
Environmental impact	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
GWP-total	kg CO2 eq	2.41E-1	1.43E-2	2.35E-2	2.79E-1	2.90E-3	9.79E-2	1.36E-3	-1.35E-1	2.45E-1
GWP-f	kg CO2 eq	2.40E-1	1.43E-2	1.90E-2	2.73E-1	2.90E-3	9.36E-2	1.36E-3	-1.45E-1	2.26E-1
GWP-b	kg CO2 eq	8.83E-4	8.69E-6	4.25E-3	5.14E-3	1.76E-6	4.27E-3	1.18E-6	9.56E-3	1.90E-2
GWP-luluc	kg CO2 eq	1.23E-4	5.06E-6	2.96E-4	4.24E-4	1.02E-6	1.66E-5	2.37E-8	-9.61E-5	3.46E-4
ODP	kg CFC11 eq	5.74E-9	3.30E-9	1.88E-8	2.79E-8	6.67E-10	2.27E-9	3.43E-11	-6.21E-9	2.46E-8
AP	mol H+ eq	8.94E-4	8.15E-5	1.72E-4	1.15E-3	1.65E-5	9.50E-5	8.19E-7	-4.29E-4	8.31E-4
EP-fw	kg P eq	4.23E-6	1.18E-7	6.25E-7	4.97E-6	2.38E-8	4.81E-7	1.08E-9	-2.36E-6	3.12E-6
EP-m	kg N eq	1.56E-4	2.92E-5	3.19E-5	2.17E-4	5.90E-6	2.82E-5	5.28E-7	-7.88E-5	1.73E-4
EP-T	mol N eq	1.75E-3	3.21E-4	3.94E-4	2.46E-3	6.50E-5	3.10E-4	3.32E-6	-8.78E-4	1.96E-3
POCP	kg NMVOC eq	7.54E-4	9.19E-5	9.15E-5	9.37E-4	1.86E-5	9.75E-5	1.25E-6	-3.77E-4	6.78E-4
ADP-mm	kg Sb eq	3.77E-6	3.70E-7	1.45E-6	5.59E-6	7.49E-8	3.75E-7	8.30E-10	-9.59E-7	5.08E-6
ADP-f	MJ	8.19E+0	2.20E-1	4.77E+0	1.32E+1	4.44E-2	2.93E-1	2.50E-3	-4.42E+0	9.09E+0
WDP	m3 depriv.	1.67E-1	6.74E-4	8.34E-2	2.51E-1	1.36E-4	5.63E-3	1.43E-5	-8.82E-2	1.68E-1
PM	disease inc.	8.09E-9	1.29E-9	1.42E-9	1.08E-8	2.61E-10	1.55E-9	1.72E-11	-4.12E-9	8.51E-9
IR	kBq U-235 eq	4.74E-3	9.60E-4	5.58E-2	6.15E-2	1.94E-4	8.96E-4	1.16E-5	-2.61E-3	6.00E-2
ETP-fw	CTUe	2.62E+0	1.78E-1	1.60E+0	4.39E+0	3.61E-2	3.39E-1	2.09E-3	-1.29E+0	3.48E+0
HTP-c	CTUh	6.07E-11	6.35E-12	3.47E-11	1.02E-10	1.28E-12	4.19E-11	6.24E-14	-2.86E-11	1.16E-10
HTP-nc	CTUh	1.69E-9	2.13E-10	1.09E-9	2.99E-9	4.30E-11	5.02E-10	1.36E-12	-8.38E-10	2.70E-9
SQP	Pt	7.31E-1	1.88E-1	1.31E+0	2.22E+0	3.80E-2	2.32E-1	6.42E-3	-1.91E+0	5.87E-1

Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	2.08E-1	3.15E-3	6.73E-1	8.84E-1	6.38E-4	1.42E-2	9.60E-5	-3.79E-1	5.20E-1
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	2.08E-1	3.15E-3	6.73E-1	8.84E-1	6.38E-4	1.42E-2	9.60E-5	-3.79E-1	5.20E-1
PENRE	MJ	8.78E+0	2.33E-1	4.78E+0	1.38E+1	4.72E-2	3.12E-1	2.66E-3	-4.76E+0	9.40E+0
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	8.78E+0	2.33E-1	4.78E+0	1.38E+1	4.72E-2	3.12E-1	2.66E-3	-4.76E+0	9.40E+0
PET	MJ	8.99E+0	2.36E-1	5.45E+0	1.47E+1	4.78E-2	3.26E-1	2.75E-3	-5.14E+0	9.92E+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	2.66E-3	2.48E-5	2.68E-3	5.36E-3	5.03E-6	1.68E-4	3.08E-6	-1.48E-3	4.06E-3
Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	1.24E-6	5.62E-7	9.64E-8	1.90E-6	1.14E-7	4.89E-7	3.03E-9	-1.20E-6	1.31E-6
NHWD	kg	1.15E-2	1.36E-2	2.75E-3	2.79E-2	2.75E-3	1.47E-2	1.10E-2	-4.09E-3	5.22E-2
RWD	kg	4.17E-6	1.49E-6	1.44E-7	5.81E-6	3.02E-7	1.14E-6	1.63E-8	-2.40E-6	4.87E-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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