

Environmental Profile

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

Ecochain v3.5.80



Product: 3085629 - EK PP-RCT Cross piece 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	0.01	0.03	0	0.01	0	-0.01	0.03
ADPE	kg Sb-eq	4.36E-6	4.38E-7	1.79E-6	6.59E-6	9.26E-8	4.51E-7	1.02E-9	-1.15E-6	5.98E-6
ADPF	kg Sb-eq	4.71E-3	1.23E-4	1.35E-4	4.97E-3	2.61E-5	1.73E-4	1.43E-6	-2.58E-3	2.59E-3
GWP	kg CO2-eq	2.72E-1	1.68E-2	2.43E-2	3.13E-1	3.55E-3	1.08E-1	1.44E-3	-1.66E-1	2.60E-1
ODP	kg CFC-11-eq	6.33E-9	3.11E-9	4.18E-8	5.12E-8	6.59E-10	2.30E-9	3.41E-11	-6.55E-9	4.76E-8
POCP	kg ethene-eq	2.25E-4	1.01E-5	1.76E-5	2.53E-4	2.13E-6	1.73E-5	3.28E-7	-1.10E-4	1.62E-4
AP	kg SO2-eq	8.60E-4	7.23E-5	1.67E-4	1.10E-3	1.53E-5	8.81E-5	7.53E-7	-4.16E-4	7.88E-4
EP	kg PO4 3--eq	8.26E-5	1.44E-5	2.15E-5	1.19E-4	3.05E-6	1.56E-5	3.28E-7	-4.29E-5	9.47E-5
HTP	kg 1,4-DB-eq	4.35E-2	7.18E-3	2.95E-2	8.02E-2	1.52E-3	3.51E-2	1.13E-4	-2.11E-2	9.58E-2
FAETP	kg 1,4-DB-eq	1.24E-3	2.10E-4	1.07E-3	2.52E-3	4.45E-5	7.78E-4	1.22E-4	-5.76E-4	2.89E-3
MAETP	kg 1,4-DB-eq	2.90E+0	7.52E-1	2.97E+0	6.62E+0	1.59E-1	1.78E+0	1.22E-1	-1.29E+0	7.39E+0
TETP	kg 1,4-DB-eq	1.97E-4	2.55E-5	1.55E-3	1.77E-3	5.38E-6	1.08E-4	1.84E-7	-1.43E-4	1.74E-3
Environmental impact	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
GWP-total	kg CO2 eq	2.85E-1	1.69E-2	2.88E-2	3.31E-1	3.58E-3	1.12E-1	1.69E-3	-1.66E-1	2.82E-1
GWP-f	kg CO2 eq	2.84E-1	1.69E-2	2.32E-2	3.24E-1	3.58E-3	1.09E-1	1.69E-3	-1.72E-1	2.66E-1
GWP-b	kg CO2 eq	1.21E-3	1.03E-5	5.18E-3	6.40E-3	2.17E-6	2.98E-3	1.47E-6	6.56E-3	1.59E-2
GWP-luluc	kg CO2 eq	1.16E-4	5.99E-6	3.66E-4	4.88E-4	1.27E-6	2.03E-5	2.91E-8	-8.20E-5	4.28E-4
ODP	kg CFC11 eq	6.10E-9	3.90E-9	2.33E-8	3.33E-8	8.25E-10	2.72E-9	4.24E-11	-6.89E-9	3.00E-8
AP	mol H+ eq	1.04E-3	9.64E-5	2.12E-4	1.35E-3	2.04E-5	1.14E-4	1.01E-6	-5.02E-4	9.80E-4
EP-fw	kg P eq	4.62E-6	1.39E-7	7.69E-7	5.53E-6	2.95E-8	5.88E-7	1.33E-9	-2.45E-6	3.70E-6
EP-m	kg N eq	1.77E-4	3.45E-5	3.92E-5	2.51E-4	7.30E-6	3.35E-5	6.54E-7	-9.07E-5	2.02E-4
EP-T	mol N eq	1.99E-3	3.80E-4	4.86E-4	2.86E-3	8.04E-5	3.68E-4	4.10E-6	-1.01E-3	2.30E-3
POCP	kg NMVOC eq	8.83E-4	1.09E-4	1.13E-4	1.10E-3	2.30E-5	1.16E-4	1.54E-6	-4.46E-4	7.99E-4
ADP-mm	kg Sb eq	4.35E-6	4.38E-7	1.79E-6	6.58E-6	9.26E-8	4.51E-7	1.02E-9	-1.15E-6	5.98E-6
ADP-f	MJ	9.88E+0	2.60E-1	5.90E+0	1.60E+1	5.50E-2	3.56E-1	3.09E-3	-5.35E+0	1.11E+1
WDP	m3 depriv.	1.98E-1	7.98E-4	1.03E-1	3.02E-1	1.69E-4	6.90E-3	1.70E-5	-1.01E-1	2.08E-1
PM	disease inc.	9.27E-9	1.53E-9	1.75E-9	1.25E-8	3.23E-10	1.87E-9	2.13E-11	-4.58E-9	1.02E-8
IR	kBq U-235 eq	5.40E-3	1.14E-3	6.91E-2	7.56E-2	2.40E-4	1.08E-3	1.43E-5	-2.88E-3	7.41E-2
ETP-fw	CTUe	2.45E+0	2.11E-1	1.98E+0	4.63E+0	4.46E-2	4.08E-1	2.59E-3	-1.19E+0	3.90E+0
HTP-c	CTUh	6.92E-11	7.51E-12	4.26E-11	1.19E-10	1.59E-12	4.98E-11	7.66E-14	-3.20E-11	1.39E-10
HTP-nc	CTUh	1.93E-9	2.52E-10	1.35E-9	3.53E-9	5.32E-11	6.04E-10	1.67E-12	-9.27E-10	3.26E-9
SQP	Pt	6.55E-1	2.22E-1	1.62E+0	2.49E+0	4.70E-2	2.83E-1	7.93E-3	-1.42E+0	1.41E+0

Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	2.04E-1	3.73E-3	8.34E-1	1.04E+0	7.88E-4	1.74E-2	1.19E-4	-2.97E-1	7.63E-1
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	2.04E-1	3.73E-3	8.34E-1	1.04E+0	7.88E-4	1.74E-2	1.19E-4	-2.97E-1	7.63E-1
PENRE	MJ	1.06E+1	2.76E-1	5.92E+0	1.68E+1	5.83E-2	3.79E-1	3.28E-3	-5.76E+0	1.15E+1
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	1.06E+1	2.76E-1	5.92E+0	1.68E+1	5.83E-2	3.79E-1	3.28E-3	-5.76E+0	1.15E+1
PET	MJ	1.08E+1	2.80E-1	6.75E+0	1.78E+1	5.91E-2	3.97E-1	3.40E-3	-6.06E+0	1.22E+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	3.08E-3	2.94E-5	3.30E-3	6.41E-3	6.22E-6	2.05E-4	3.81E-6	-1.63E-3	5.00E-3
Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	1.37E-6	6.65E-7	1.13E-7	2.15E-6	1.41E-7	5.87E-7	3.74E-9	-1.34E-6	1.54E-6
NHWD	kg	1.25E-2	1.61E-2	3.24E-3	3.19E-2	3.41E-3	1.76E-2	1.36E-2	-4.61E-3	6.19E-2
RWD	kg	4.73E-6	1.77E-6	1.70E-7	6.66E-6	3.74E-7	1.38E-6	2.02E-8	-2.62E-6	5.81E-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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