Environmental Profile

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

Ecochain v3.5.80

Product:	3083455 - EK PP-RCT Flange Adaptor 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

A1 Raw material supply A2 Transport A3 Manufacturing

Construction process stage

A4 Transport gate to site
A5 Assembly / Construction installation process

Use stage

B1 Use B2 Maintenance B3 Repair B4 Replacement B5 Refurbishment
B6 Operational energy use B7 Operational water use

End-of-Life stage

C1 De-construction demolition C2 Transport C3 Waste processing
C4 Disposal

Benefits and loads beyond the system boundaries

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

Results

Environmental impact SBK set 1	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
ECI	euro	0.02	0	0	0.02	0	0.01	0	-0.01	0.02
ADPE	kg Sb-eq	2.72E-6	2.36E-7	9.47E-7	3.90E-6	4.90E-8	2.47E-7	5.43E-10	-6.22E-7	3.57E-6
ADPF	kg Sb-eq	2.94E-3	6.64E-5	7.39E-5	3.08E-3	1.38E-5	9.45E-5	7.57E-7	-1.54E-3	1.65E-3
GWP	kg CO2-eq	1.77E-1	9.04E-3	1.33E-2	1.99E-1	1.88E-3	8.52E-2	7.62E-4	-1.06E-1	1.82E-1
ODP	kg CFC-11-eq	4.42E-9	1.68E-9	2.20E-8	2.81E-8	3.49E-10	1.28E-9	1.81E-11	-5.08E-9	2.47E-8
POCP	kg ethene-eq	1.54E-4	5.43E-6	9.47E-6	1.69E-4	1.13E-6	9.77E-6	1.74E-7	-6.18E-5	1.18E-4
AP	kg SO2-eq	5.82E-4	3.89E-5	8.91E-5	7.10E-4	8.09E-6	5.00E-5	3.99E-7	-2.33E-4	5.35E-4
EP	kg PO4 3−-eq	5.80E-5	7.77E-6	1.15E-5	7.73E-5	1.62E-6	9.07E-6	1.73E-7	-2.49E-5	6.33E-5
HTP	kg 1,4-DB-eq	3.15E-2	3.87E-3	1.60E-2	5.15E-2	8.04E-4	1.97E-2	5.96E-5	-1.23E-2	5.97E-2
FAETP	kg 1,4-DB-eq	8.87E-4	1.13E-4	5.78E-4	1.58E-3	2.36E-5	5.71E-4	6.43E-5	-3.29E-4	1.91E-3
MAETP	kg 1,4-DB-eq	2.24E+0	4.05E-1	1.59E+0	4.23E+0	8.41E-2	1.25E+0	6.42E-2	-7.37E-1	4.89E+0
TETP	kg 1,4-DB-eq	1.45E-4	1.37E-5	8.15E-4	9.73E-4	2.85E-6	5.83E-5	9.78E-8	-8.30E-5	9.51E-4
Environmental impact	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
GWP-total	kg CO2 eq	1.84E-1	9.12E-3	1.57E-2	2.09E-1	1.90E-3	8.73E-2	8.93E-4	-1.05E-1	1.94E-1
GWP-f	kg CO2 eq	1.84E-1	9.12E-3	1.27E-2	2.06E-1	1.90E-3	8.55E-2	8.93E-4	-1.09E-1	1.85E-1
GWP-b	kg CO2 eq	-1.92E-4	5.54E-6	2.86E-3	2.67E-3	1.15E-6	1.76E-3	7.75E-7	3.88E-3	8.31E-3
GWP-luluc	kg CO2 eq	9.03E-5	3.23E-6	1.93E-4	2.86E-4	6.71E-7	1.10E-5	1.55E-8	-4.72E-5	2.51E-4
ODP	kg CFC11 eq	4.33E-9	2.10E-9	1.23E-8	1.87E-8	4.37E-10	1.52E-9	2.24E-11	-5.47E-9	1.52E-8
AP	mol H+ eq	7.04E-4	5.19E-5	1.13E-4	8.68E-4	1.08E-5	6.50E-5	5.36E-7	-2.83E-4	6.62E-4
EP-fw	kg P eq	3.56E-6	7.50E-8	4.12E-7	4.05E-6	1.56E-8	3.19E-7	7.07E-10	-1.37E-6	3.01E-6
EP-m	kg N eq	1.22E-4	1.86E-5	2.11E-5	1.62E-4	3.86E-6	1.97E-5	3.46E-7	-5.30E-5	1.33E-4
EP-T	mol N eq	1.37E-3	2.05E-4	2.59E-4	1.83E-3	4.26E-5	2.17E-4	2.17E-6	-5.88E-4	1.51E-3
POCP	kg NMVOC eq	6.02E-4	5.85E-5	6.03E-5	7.21E-4	1.22E-5	6.76E-5	8.16E-7	-2.55E-4	5.47E-4
ADP-mm	kg Sb eq	2.71E-6	2.36E-7	9.47E-7	3.90E-6	4.90E-8	2.47E-7	5.43E-10	-6.22E-7	3.57E-6
ADP-f	MJ	6.11E+0	1.40E-1	3.11E+0	9.36E+0	2.91E-2	1.94E-1	1.64E-3	-3.14E+0	6.44E+0
WDP	m3 depriv.	1.30E-1	4.29E-4	5.49E-2	1.85E-1	8.93E-5	3.75E-3	9.41E-6	-5.56E-2	1.34E-1
PM	disease inc.	6.19E-9	8.23E-10	9.43E-10	7.95E-9	1.71E-10	1.04E-9	1.13E-11	-2.53E-9	6.65E-9
IR	kBq U-235 eq	3.79E-3	6.12E-4	3.63E-2	4.07E-2	1.27E-4	5.95E-4	7.58E-6	-1.66E-3	3.98E-2
ETP-fw	CTUe	1.80E+0	1.14E-1	1.05E+0	2.96E+0	2.36E-2	2.27E-1	1.37E-3	-6.88E-1	2.53E+0
HTP-c	CTUh	4.74E-11	4.04E-12	2.29E-11	7.43E-11	8.41E-13	3.02E-11	4.09E-14	-1.85E-11	8.69E-11
HTP-nc	CTUh	1.31E-9	1.35E-10	7.16E-10	2.16E-9	2.82E-11	3.52E-10	8.88E-13	-5.20E-10	2.02E-9
SQP	Pt	5.06E-1	1.20E-1	8.52E-1	1.48E+0	2.49E-2	1.55E-1	4.20E-3	-8.36E-1	8.25E-1

Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	1.49E-1	2.01E-3	4.39E-1	5.89E-1	4.17E-4	9.44E-3	6.28E-5	-1.72E-1	4.27E-1
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	1.49E-1	2.01E-3	4.39E-1	5.89E-1	4.17E-4	9.44E-3	6.28E-5	-1.72E-1	4.27E-1
PENRE	MJ	6.56E+0	1.49E-1	3.12E+0	9.82E+0	3.09E-2	2.07E-1	1.74E-3	-3.40E+0	6.67E+0
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	6.56E+0	1.49E-1	3.12E+0	9.82E+0	3.09E-2	2.07E-1	1.74E-3	-3.40E+0	6.67E+0
PET	MJ	6.71E+0	1.51E-1	3.56E+0	1.04E+1	3.13E-2	2.17E-1	1.80E-3	-3.57E+0	7.09E+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	2.21E-3	1.58E-5	1.76E-3	3.99E-3	3.29E-6	1.15E-4	2.01E-6	-9.06E-4	3.20E-3
Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	9.18E-7	3.58E-7	6.87E-8	1.34E-6	7.44E-8	3.28E-7	1.98E-9	-1.06E-6	6.87E-7
NHWD	kg	9.40E-3	8.67E-3	1.95E-3	2.00E-2	1.80E-3	1.08E-2	7.21E-3	-2.61E-3	3.72E-2
RWD	kg	3.27E-6	9.52E-7	1.03E-7	4.33E-6	1.98E-7	7.59E-7	1.07E-8	-1.54E-6	3.75E-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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