Environmental Profile

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

Ecochain v3.5.80

Product:	3081861 - EK PP-RCT Tee Reduced GN 63x32x63
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	0.03	0	0.01	0.04	0	0.01	0	-0.02	0.04
ADPE	kg Sb-eq	6.53E-6	6.32E-7	2.59E-6	9.75E-6	1.33E-7	6.58E-7	1.48E-9	-1.68E-6	8.86E-6
ADPF	kg Sb-eq	6.84E-3	1.78E-4	1.95E-4	7.21E-3	3.76E-5	2.51E-4	2.06E-6	-3.75E-3	3.75E-3
GWP	kg CO2-eq	3.99E-1	2.42E-2	3.53E-2	4.58E-1	5.12E-3	1.59E-1	2.07E-3	-2.43E-1	3.81E-1
ODP	kg CFC-11-eq	9.74E-9	4.50E-9	6.03E-8	7.46E-8	9.49E-10	3.36E-9	4.92E-11	-9.84E-9	6.91E-8
POCP	kg ethene-eq	3.29E-4	1.45E-5	2.54E-5	3.69E-4	3.07E-6	2.53E-5	4.73E-7	-1.61E-4	2.37E-4
AP	kg SO2-eq	1.27E-3	1.04E-4	2.42E-4	1.61E-3	2.20E-5	1.29E-4	1.09E-6	-6.14E-4	1.15E-3
EP	kg PO4 3−-eq	1.25E-4	2.08E-5	3.12E-5	1.77E-4	4.40E-6	2.29E-5	4.72E-7	-6.59E-5	1.39E-4
HTP	kg 1,4-DB-eq	6.50E-2	1.04E-2	4.28E-2	1.18E-1	2.19E-3	5.09E-2	1.62E-4	-3.15E-2	1.40E-1
FAETP	kg 1,4-DB-eq	1.98E-3	3.04E-4	1.55E-3	3.83E-3	6.41E-5	1.14E-3	1.75E-4	-9.39E-4	4.27E-3
MAETP	kg 1,4-DB-eq	4.39E+0	1.09E+0	4.30E+0	9.78E+0	2.29E-1	2.62E+0	1.75E-1	-1.93E+0	1.09E+1
TETP	kg 1,4-DB-eq	3.03E-4	3.67E-5	2.23E-3	2.57E-3	7.76E-6	1.56E-4	2.66E-7	-2.42E-4	2.50E-3
Environmental impact	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
GWP-total	kg CO2 eq	4.17E-1	2.45E-2	4.17E-2	4.84E-1	5.16E-3	1.66E-1	2.43E-3	-2.38E-1	4.18E-1
GWP-f	kg CO2 eq	4.16E-1	2.44E-2	3.37E-2	4.74E-1	5.16E-3	1.60E-1	2.43E-3	-2.52E-1	3.89E-1
GWP-b	kg CO2 eq	1.72E-3	1.48E-5	7.53E-3	9.26E-3	3.13E-6	5.94E-3	2.11E-6	1.32E-2	2.84E-2
GWP-luluc	kg CO2 eq	1.91E-4	8.65E-6	5.29E-4	7.29E-4	1.83E-6	2.94E-5	4.22E-8	-1.45E-4	6.16E-4
ODP	kg CFC11 eq	9.47E-9	5.63E-9	3.37E-8	4.88E-8	1.19E-9	3.98E-9	6.10E-11	-1.03E-8	4.36E-8
AP	mol H+ eq	1.54E-3	1.39E-4	3.06E-4	1.98E-3	2.94E-5	1.66E-4	1.46E-6	-7.42E-4	1.44E-3
EP-fw	kg P eq	7.02E-6	2.01E-7	1.11E-6	8.34E-6	4.25E-8	8.52E-7	1.92E-9	-3.86E-6	5.37E-6
EP-m	kg N eq	2.65E-4	4.98E-5	5.68E-5	3.72E-4	1.05E-5	4.91E-5	9.42E-7	-1.35E-4	2.97E-4
EP-T	mol N eq	2.97E-3	5.49E-4	7.02E-4	4.22E-3	1.16E-4	5.40E-4	5.92E-6	-1.50E-3	3.38E-3
POCP	kg NMVOC eq	1.30E-3	1.57E-4	1.63E-4	1.62E-3	3.31E-5	1.70E-4	2.22E-6	-6.55E-4	1.17E-3
ADP-mm	kg Sb eq	6.52E-6	6.32E-7	2.59E-6	9.75E-6	1.33E-7	6.58E-7	1.48E-9	-1.68E-6	8.86E-6
ADP-f	MJ	1.43E+1	3.75E-1	8.52E+0	2.32E+1	7.92E-2	5.17E-1	4.46E-3	-7.76E+0	1.61E+1
WDP	m3 depriv.	2.89E-1	1.15E-3	1.49E-1	4.39E-1	2.43E-4	9.98E-3	2.52E-5	-1.51E-1	2.98E-1
PM	disease inc.	1.38E-8	2.21E-9	2.53E-9	1.85E-8	4.66E-10	2.72E-9	3.07E-11	-6.96E-9	1.48E-8
IR	kBq U-235 eq	8.04E-3	1.64E-3	9.98E-2	1.09E-1	3.46E-4	1.58E-3	2.06E-5	-4.40E-3	1.07E-1
ETP-fw	CTUe	4.07E+0	3.05E-1	2.86E+0	7.23E+0	6.43E-2	5.95E-1	3.73E-3	-2.00E+0	5.89E+0
HTP-c	CTUh	1.03E-10	1.08E-11	6.17E-11	1.76E-10	2.29E-12	7.30E-11	1.11E-13	-4.84E-11	2.03E-10
HTP-nc	CTUh	2.88E-9	3.63E-10	1.95E-9	5.19E-9	7.67E-11	8.80E-10	2.41E-12	-1.41E-9	4.74E-9
SQP	Pt	1.11E+0	3.21E-1	2.33E+0	3.77E+0	6.78E-2	4.10E-1	1.14E-2	-2.73E+0	1.53E+0

Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	3.30E-1	5.38E-3	1.20E+0	1.54E+0	1.14E-3	2.52E-2	1.71E-4	-5.51E-1	1.01E+0
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	3.30E-1	5.38E-3	1.20E+0	1.54E+0	1.14E-3	2.52E-2	1.71E-4	-5.51E-1	1.01E+0
PENRE	MJ	1.54E+1	3.98E-1	8.55E+0	2.43E+1	8.41E-2	5.51E-1	4.73E-3	-8.37E+0	1.66E+1
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	1.54E+1	3.98E-1	8.55E+0	2.43E+1	8.41E-2	5.51E-1	4.73E-3	-8.37E+0	1.66E+1
PET	MJ	1.57E+1	4.04E-1	9.75E+0	2.59E+1	8.52E-2	5.76E-1	4.90E-3	-8.92E+0	1.76E+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	4.55E-3	4.25E-5	4.78E-3	9.37E-3	8.96E-6	2.97E-4	5.48E-6	-2.49E-3	7.19E-3
Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	2.09E-6	9.59E-7	1.67E-7	3.22E-6	2.03E-7	8.57E-7	5.40E-9	-2.01E-6	2.28E-6
NHWD	kg	1.91E-2	2.33E-2	4.76E-3	4.72E-2	4.91E-3	2.57E-2	1.96E-2	-6.95E-3	9.04E-2
RWD	kg	7.07E-6	2.55E-6	2.50E-7	9.87E-6	5.39E-7	2.01E-6	2.91E-8	-4.01E-6	8.43E-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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