Environmental Profile

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

Ecochain v3.5.80

Product:	3085087 - EK PP-RCT Tee Reduced GN 40x25x40
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	0.01	0	0	0.01	0	0	0	-0.01	0.01
ADPE	kg Sb-eq	2.23E-6	2.09E-7	8.25E-7	3.26E-6	4.29E-8	2.14E-7	4.76E-10	-5.47E-7	2.97E-6
ADPF	kg Sb-eq	2.24E-3	5.89E-5	6.28E-5	2.36E-3	1.21E-5	8.13E-5	6.63E-7	-1.22E-3	1.23E-3
GWP	kg CO2-eq	1.32E-1	8.02E-3	1.13E-2	1.51E-1	1.65E-3	5.39E-2	6.67E-4	-8.01E-2	1.27E-1
ODP	kg CFC-11-eq	3.37E-9	1.49E-9	1.92E-8	2.41E-8	3.05E-10	1.09E-9	1.58E-11	-3.36E-9	2.21E-8
POCP	kg ethene-eq	1.09E-4	4.81E-6	8.14E-6	1.22E-4	9.87E-7	8.23E-6	1.52E-7	-5.23E-5	7.90E-5
AP	kg SO2-eq	4.25E-4	3.45E-5	7.72E-5	5.37E-4	7.08E-6	4.19E-5	3.50E-7	-2.01E-4	3.85E-4
EP	kg PO4 3−-eq	4.27E-5	6.89E-6	9.95E-6	5.95E-5	1.41E-6	7.48E-6	1.51E-7	-2.21E-5	4.65E-5
HTP	kg 1,4-DB-eq	2.21E-2	3.43E-3	1.37E-2	3.93E-2	7.04E-4	1.65E-2	5.21E-5	-1.04E-2	4.61E-2
FAETP	kg 1,4-DB-eq	7.06E-4	1.01E-4	4.95E-4	1.30E-3	2.06E-5	3.83E-4	5.61E-5	-3.24E-4	1.44E-3
MAETP	kg 1,4-DB-eq	1.53E+0	3.59E-1	1.37E+0	3.26E+0	7.36E-2	8.79E-1	5.60E-2	-6.39E-1	3.63E+0
TETP	kg 1,4-DB-eq	1.05E-4	1.22E-5	7.11E-4	8.28E-4	2.49E-6	5.03E-5	8.57E-8	-8.51E-5	7.95E-4
Environmental impact	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
GWP-total	kg CO2 eq	1.38E-1	8.09E-3	1.34E-2	1.59E-1	1.66E-3	5.63E-2	7.81E-4	-7.80E-2	1.40E-1
GWP-f	kg CO2 eq	1.37E-1	8.09E-3	1.08E-2	1.56E-1	1.66E-3	5.41E-2	7.81E-4	-8.29E-2	1.30E-1
GWP-b	kg CO2 eq	4.83E-4	4.91E-6	2.42E-3	2.91E-3	1.01E-6	2.23E-3	6.78E-7	4.98E-3	1.01E-2
GWP-luluc	kg CO2 eq	6.86E-5	2.86E-6	1.68E-4	2.40E-4	5.87E-7	9.49E-6	1.37E-8	-5.16E-5	1.98E-4
ODP	kg CFC11 eq	3.30E-9	1.86E-9	1.07E-8	1.59E-8	3.82E-10	1.30E-9	1.96E-11	-3.54E-9	1.40E-8
AP	mol H+ eq	5.15E-4	4.61E-5	9.76E-5	6.58E-4	9.45E-6	5.42E-5	4.70E-7	-2.43E-4	4.79E-4
EP-fw	kg P eq	2.42E-6	6.65E-8	3.56E-7	2.84E-6	1.36E-8	2.75E-7	6.21E-10	-1.31E-6	1.82E-6
EP-m	kg N eq	8.94E-5	1.65E-5	1.81E-5	1.24E-4	3.38E-6	1.61E-5	3.02E-7	-4.47E-5	9.91E-5
EP-T	mol N eq	1.00E-3	1.82E-4	2.24E-4	1.41E-3	3.72E-5	1.77E-4	1.90E-6	-4.97E-4	1.13E-3
POCP	kg NMVOC eq	4.32E-4	5.19E-5	5.21E-5	5.36E-4	1.06E-5	5.56E-5	7.14E-7	-2.14E-4	3.89E-4
ADP-mm	kg Sb eq	2.23E-6	2.09E-7	8.25E-7	3.26E-6	4.29E-8	2.14E-7	4.76E-10	-5.46E-7	2.97E-6
ADP-f	MJ	4.68E+0	1.24E-1	2.71E+0	7.52E+0	2.55E-2	1.67E-1	1.43E-3	-2.53E+0	5.18E+0
WDP	m3 depriv.	9.58E-2	3.81E-4	4.75E-2	1.44E-1	7.81E-5	3.22E-3	8.48E-6	-4.98E-2	9.71E-2
PM	disease inc.	4.63E-9	7.30E-10	8.09E-10	6.17E-9	1.50E-10	8.85E-10	9.86E-12	-2.31E-9	4.90E-9
IR	kBq U-235 eq	2.71E-3	5.43E-4	3.17E-2	3.50E-2	1.11E-4	5.11E-4	6.63E-6	-1.47E-3	3.41E-2
ETP-fw	CTUe	1.46E+0	1.01E-1	9.09E-1	2.47E+0	2.07E-2	1.94E-1	1.20E-3	-7.01E-1	1.98E+0
HTP-c	CTUh	3.51E-11	3.59E-12	1.97E-11	5.84E-11	7.36E-13	2.41E-11	3.60E-14	-1.61E-11	6.72E-11
HTP-nc	CTUh	9.74E-10	1.20E-10	6.21E-10	1.72E-9	2.46E-11	2.87E-10	7.78E-13	-4.70E-10	1.56E-9
SQP	Pt	4.03E-1	1.06E-1	7.43E-1	1.25E+0	2.18E-2	1.33E-1	3.67E-3	-1.01E+0	4.03E-1

Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	1.16E-1	1.78E-3	3.83E-1	5.01E-1	3.65E-4	8.15E-3	5.48E-5	-2.01E-1	3.08E-1
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	1.16E-1	1.78E-3	3.83E-1	5.01E-1	3.65E-4	8.15E-3	5.48E-5	-2.01E-1	3.08E-1
PENRE	MJ	5.03E+0	1.32E-1	2.72E+0	7.88E+0	2.70E-2	1.78E-1	1.52E-3	-2.73E+0	5.36E+0
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	5.03E+0	1.32E-1	2.72E+0	7.88E+0	2.70E-2	1.78E-1	1.52E-3	-2.73E+0	5.36E+0
PET	MJ	5.14E+0	1.34E-1	3.10E+0	8.38E+0	2.74E-2	1.86E-1	1.58E-3	-2.93E+0	5.66E+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	1.53E-3	1.40E-5	1.52E-3	3.07E-3	2.88E-6	9.62E-5	1.76E-6	-8.30E-4	2.34E-3
Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	7.17E-7	3.17E-7	5.50E-8	1.09E-6	6.51E-8	2.79E-7	1.74E-9	-6.86E-7	7.49E-7
NHWD	kg	6.64E-3	7.69E-3	1.57E-3	1.59E-2	1.58E-3	8.41E-3	6.31E-3	-2.30E-3	2.99E-2
RWD	kg	2.39E-6	8.44E-7	8.23E-8	3.31E-6	1.73E-7	6.52E-7	9.35E-9	-1.34E-6	2.80E-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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