

Environmental Profile

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

Ecochain v3.5.80



Product: 3079599 - EK PP-RCT Reduc.Sleeve Metal M/T GN 90x3
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	9.02	0.01	0.05	9.08	0	0.03	0	-0.71	8.4
ADPE	kg Sb-eq	3.02E-2	1.63E-6	1.64E-5	3.02E-2	1.02E-6	2.24E-6	8.15E-9	-1.41E-2	1.61E-2
ADPF	kg Sb-eq	4.42E-2	4.59E-4	1.28E-3	4.59E-2	2.88E-4	5.70E-4	1.17E-5	-1.42E-2	3.26E-2
GWP	kg CO2-eq	5.76E+0	6.26E-2	2.30E-1	6.06E+0	3.93E-2	2.95E-1	4.12E-3	-1.60E+0	4.79E+0
ODP	kg CFC-11-eq	3.24E-7	1.16E-8	3.81E-7	7.16E-7	7.29E-9	8.39E-9	2.85E-10	-1.09E-7	6.23E-7
POCP	kg ethene-eq	2.04E-2	3.76E-5	1.64E-4	2.06E-2	2.36E-5	6.17E-5	1.45E-6	-1.93E-3	1.87E-2
AP	kg SO2-eq	4.14E-1	2.69E-4	1.54E-3	4.16E-1	1.69E-4	4.19E-4	6.27E-6	-3.03E-2	3.86E-1
EP	kg PO4 3--eq	2.26E-2	5.38E-5	2.00E-4	2.29E-2	3.38E-5	6.44E-5	1.66E-6	-2.77E-3	2.02E-2
HTP	kg 1,4-DB-eq	6.75E+1	2.68E-2	2.77E-1	6.78E+1	1.68E-2	1.11E-1	5.49E-4	-4.44E+0	6.35E+1
FAETP	kg 1,4-DB-eq	1.57E+0	7.84E-4	9.99E-3	1.58E+0	4.92E-4	3.27E-3	3.05E-4	-1.89E-1	1.39E+0
MAETP	kg 1,4-DB-eq	6.86E+3	2.80E+0	2.74E+1	6.89E+3	1.76E+0	6.93E+0	3.21E-1	-6.52E+2	6.25E+3
TETP	kg 1,4-DB-eq	1.85E-1	9.48E-5	1.41E-2	1.99E-1	5.95E-5	3.44E-4	1.14E-6	-1.18E-2	1.88E-1
Environmental impact	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
GWP-total	kg CO2 eq	5.92E+0	6.31E-2	2.72E-1	6.25E+0	3.96E-2	2.96E-1	4.74E-3	-1.66E+0	4.93E+0
GWP-f	kg CO2 eq	5.91E+0	6.31E-2	2.19E-1	6.19E+0	3.96E-2	2.97E-1	4.74E-3	-1.63E+0	4.90E+0
GWP-b	kg CO2 eq	3.92E-3	3.83E-5	4.94E-2	5.33E-2	2.40E-5	-1.03E-3	4.80E-6	-2.46E-2	2.78E-2
GWP-luluc	kg CO2 eq	8.37E-3	2.23E-5	3.34E-3	1.17E-2	1.40E-5	7.28E-5	2.43E-7	-2.53E-3	9.29E-3
ODP	kg CFC11 eq	3.54E-7	1.45E-8	2.13E-7	5.81E-7	9.13E-9	9.90E-9	3.58E-10	-1.11E-7	4.89E-7
AP	mol H+ eq	4.73E-1	3.59E-4	1.95E-3	4.75E-1	2.26E-4	5.33E-4	8.33E-6	-3.65E-2	4.40E-1
EP-fw	kg P eq	3.79E-3	5.19E-7	7.13E-6	3.80E-3	3.26E-7	2.85E-6	1.02E-8	-3.05E-4	3.49E-3
EP-m	kg N eq	2.42E-2	1.29E-4	3.65E-4	2.47E-2	8.07E-5	1.38E-4	3.61E-6	-4.15E-3	2.08E-2
EP-T	mol N eq	3.55E-1	1.42E-3	4.47E-3	3.61E-1	8.90E-4	1.56E-3	3.22E-5	-5.84E-2	3.05E-1
POCP	kg NMVOC eq	9.52E-2	4.05E-4	1.04E-3	9.66E-2	2.54E-4	4.65E-4	1.02E-5	-1.38E-2	8.36E-2
ADP-mm	kg Sb eq	3.02E-2	1.63E-6	1.64E-5	3.02E-2	1.02E-6	2.24E-6	8.15E-9	-1.41E-2	1.61E-2
ADP-f	MJ	8.43E+1	9.68E-1	5.38E+1	1.39E+2	6.08E-1	1.18E+0	2.48E-2	-2.96E+1	1.11E+2
WDP	m3 depriv.	4.92E+0	2.97E-3	9.50E-1	5.88E+0	1.87E-3	1.66E-2	8.15E-4	-1.38E+0	4.51E+0
PM	disease inc.	1.06E-6	5.69E-9	1.63E-8	1.08E-6	3.58E-9	8.14E-9	1.66E-10	-1.37E-7	9.59E-7
IR	kBq U-235 eq	2.59E-1	4.23E-3	6.29E-1	8.92E-1	2.66E-3	4.14E-3	1.06E-4	-1.06E-1	7.93E-1
ETP-fw	CTUe	4.67E+3	7.86E-1	1.81E+1	4.69E+3	4.94E-1	2.30E+0	1.75E-2	-6.62E+2	4.03E+3
HTP-c	CTUh	6.78E-8	2.80E-11	3.96E-10	6.82E-8	1.76E-11	1.57E-10	4.46E-13	-1.48E-8	5.36E-8
HTP-nc	CTUh	5.47E-6	9.37E-10	1.24E-8	5.48E-6	5.89E-10	2.94E-9	1.20E-11	-9.45E-7	4.54E-6
SQP	Pt	7.19E+1	8.28E-1	1.47E+1	8.74E+1	5.20E-1	1.31E+0	5.56E-2	-1.37E+1	7.56E+1

Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	1.54E+1	1.39E-2	7.59E+0	2.30E+1	8.72E-3	8.71E-2	4.30E-4	-4.11E+0	1.90E+1
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	1.54E+1	1.39E-2	7.59E+0	2.30E+1	8.72E-3	8.71E-2	4.30E-4	-4.11E+0	1.90E+1
PENRE	MJ	9.00E+1	1.03E+0	5.39E+1	1.45E+2	6.45E-1	1.26E+0	2.63E-2	-3.17E+1	1.15E+2
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	9.00E+1	1.03E+0	5.39E+1	1.45E+2	6.45E-1	1.26E+0	2.63E-2	-3.17E+1	1.15E+2
PET	MJ	1.05E+2	1.04E+0	6.15E+1	1.68E+2	6.54E-1	1.34E+0	2.68E-2	-3.58E+1	1.34E+2
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	1.25E-1	1.10E-4	3.04E-2	1.56E-1	6.88E-5	5.62E-4	2.77E-5	-3.52E-2	1.21E-1
Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	3.76E-3	2.48E-6	1.19E-6	3.77E-3	1.55E-6	2.34E-6	3.49E-8	-1.77E-3	2.00E-3
NHWD	kg	1.81E+0	6.00E-2	3.38E-2	1.91E+0	3.77E-2	5.33E-2	1.50E-1	-6.21E-1	1.53E+0
RWD	kg	2.18E-4	6.59E-6	1.78E-6	2.26E-4	4.13E-6	5.18E-6	1.63E-7	-8.51E-5	1.51E-4
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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