

Environmental Profile

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

Ecochain v3.5.80



Product: 3024118 - PP-R Plastic Clip GN 20 EK
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	0	0	0	0	0	0	-0	0
ADPE	kg Sb-eq	1.88E-7	2.60E-9	5.21E-8	2.43E-7	3.40E-9	1.62E-8	3.72E-11	-4.08E-8	2.22E-7
ADPF	kg Sb-eq	1.76E-4	7.31E-7	4.18E-6	1.80E-4	9.59E-7	6.29E-6	5.23E-8	-9.70E-5	9.08E-5
GWP	kg CO2-eq	1.03E-2	9.96E-5	7.52E-4	1.11E-2	1.31E-4	4.41E-3	5.30E-5	-6.28E-3	9.46E-3
ODP	kg CFC-11-eq	2.47E-10	1.85E-11	1.21E-9	1.48E-9	2.42E-11	8.26E-11	1.25E-12	-2.50E-10	1.33E-9
POCP	kg ethene-eq	8.63E-6	5.98E-8	5.29E-7	9.21E-6	7.83E-8	6.27E-7	1.21E-8	-4.01E-6	5.92E-6
AP	kg SO2-eq	3.37E-5	4.29E-7	4.93E-6	3.90E-5	5.62E-7	3.21E-6	2.75E-8	-1.46E-5	2.83E-5
EP	kg PO4 3--eq	3.14E-6	8.56E-8	6.42E-7	3.87E-6	1.12E-7	5.68E-7	1.21E-8	-1.34E-6	3.22E-6
HTP	kg 1,4-DB-eq	1.72E-3	4.26E-5	9.01E-4	2.66E-3	5.58E-5	1.29E-3	4.17E-6	-7.22E-4	3.29E-3
FAETP	kg 1,4-DB-eq	4.76E-5	1.25E-6	3.24E-5	8.12E-5	1.64E-6	3.09E-5	4.56E-6	-1.43E-5	1.04E-4
MAETP	kg 1,4-DB-eq	1.23E-1	4.46E-3	8.81E-2	2.16E-1	5.84E-3	6.77E-2	4.54E-3	-4.37E-2	2.50E-1
TETP	kg 1,4-DB-eq	7.13E-6	1.51E-7	4.48E-5	5.21E-5	1.98E-7	3.94E-6	6.68E-9	-2.89E-6	5.33E-5
Environmental impact	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
GWP-total	kg CO2 eq	1.08E-2	1.00E-4	8.87E-4	1.18E-2	1.32E-4	4.43E-3	6.21E-5	-6.51E-3	9.87E-3
GWP-f	kg CO2 eq	1.07E-2	1.00E-4	7.15E-4	1.16E-2	1.32E-4	4.43E-3	6.21E-5	-6.50E-3	9.68E-3
GWP-b	kg CO2 eq	2.67E-5	6.10E-8	1.62E-4	1.89E-4	7.99E-8	2.36E-7	5.41E-8	-9.00E-6	1.80E-4
GWP-luluc	kg CO2 eq	3.47E-6	3.55E-8	1.06E-5	1.41E-5	4.66E-8	7.44E-7	1.04E-9	-1.29E-6	1.36E-5
ODP	kg CFC11 eq	2.38E-10	2.31E-11	6.78E-10	9.39E-10	3.03E-11	9.77E-11	1.56E-12	-2.66E-10	8.03E-10
AP	mol H+ eq	4.05E-5	5.72E-7	6.23E-6	4.73E-5	7.50E-7	4.14E-6	3.70E-8	-1.75E-5	3.47E-5
EP-fw	kg P eq	1.77E-7	8.26E-10	2.30E-8	2.01E-7	1.08E-9	2.15E-8	4.79E-11	-6.92E-8	1.54E-7
EP-m	kg N eq	6.63E-6	2.05E-7	1.18E-6	8.01E-6	2.68E-7	1.22E-6	2.43E-8	-3.14E-6	6.38E-6
EP-T	mol N eq	7.58E-5	2.26E-6	1.43E-5	9.24E-5	2.96E-6	1.34E-5	1.51E-7	-3.48E-5	7.42E-5
POCP	kg NMVOC eq	3.37E-5	6.45E-7	3.36E-6	3.77E-5	8.45E-7	4.22E-6	5.65E-8	-1.59E-5	2.69E-5
ADP-mm	kg Sb eq	1.88E-7	2.60E-9	5.21E-8	2.43E-7	3.40E-9	1.62E-8	3.72E-11	-4.08E-8	2.22E-7
ADP-f	MJ	3.67E-1	1.54E-3	1.71E-1	5.39E-1	2.02E-3	1.30E-2	1.13E-4	-2.00E-1	3.55E-1
WDP	m3 depriv.	7.64E-3	4.73E-6	3.05E-3	1.07E-2	6.20E-6	2.54E-4	5.19E-7	-3.39E-3	7.57E-3
PM	disease inc.	3.49E-10	9.06E-12	5.27E-11	4.11E-10	1.19E-11	6.77E-11	7.80E-13	-1.46E-10	3.45E-10
IR	kBq U-235 eq	2.06E-4	6.74E-6	2.00E-3	2.21E-3	8.83E-6	3.91E-5	5.27E-7	-9.24E-5	2.17E-3
ETP-fw	CTUe	7.25E-2	1.25E-3	5.77E-2	1.31E-1	1.64E-3	1.47E-2	9.50E-5	-2.53E-2	1.23E-1
HTP-c	CTUh	2.74E-12	4.45E-14	1.28E-12	4.06E-12	5.84E-14	1.79E-12	2.73E-15	-1.05E-12	4.86E-12
HTP-nc	CTUh	7.59E-11	1.49E-12	3.96E-11	1.17E-10	1.96E-12	2.21E-11	6.09E-14	-2.95E-11	1.12E-10
SQP	Pt	1.69E-2	1.32E-3	4.69E-2	6.51E-2	1.73E-3	1.03E-2	2.91E-4	-7.61E-3	6.99E-2

Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	6.10E-3	2.21E-5	2.41E-2	3.02E-2	2.90E-5	6.37E-4	4.42E-6	-2.83E-3	2.81E-2
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	6.10E-3	2.21E-5	2.41E-2	3.02E-2	2.90E-5	6.37E-4	4.42E-6	-2.83E-3	2.81E-2
PENRE	MJ	3.94E-1	1.64E-3	1.72E-1	5.67E-1	2.14E-3	1.38E-2	1.20E-4	-2.15E-1	3.68E-1
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	3.94E-1	1.64E-3	1.72E-1	5.67E-1	2.14E-3	1.38E-2	1.20E-4	-2.15E-1	3.68E-1
PET	MJ	4.00E-1	1.66E-3	1.96E-1	5.97E-1	2.17E-3	1.44E-2	1.25E-4	-2.18E-1	3.96E-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	1.22E-4	1.74E-7	9.73E-5	2.20E-4	2.29E-7	7.55E-6	1.40E-7	-5.10E-5	1.77E-4
Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	5.25E-8	3.94E-9	4.11E-9	6.06E-8	5.17E-9	2.12E-8	1.36E-10	-5.22E-8	3.49E-8
NHWD	kg	4.88E-4	9.55E-5	1.17E-4	7.00E-4	1.25E-4	6.60E-4	5.01E-4	-1.52E-4	1.83E-3
RWD	kg	1.78E-7	1.05E-8	6.15E-9	1.95E-7	1.37E-8	4.96E-8	7.42E-10	-8.40E-8	1.75E-7
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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