

Environmental Profile

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

Ecochain v3.5.80



Product: 3059375 - PP-R Reduc.Sleeve Metal M/T GY 32x1" OK
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	1.16	0	0	1.17	0	0	0	-0.09	1.08
ADPE	kg Sb-eq	3.89E-3	1.86E-7	7.54E-7	3.89E-3	1.41E-7	3.31E-7	1.15E-9	-1.82E-3	2.07E-3
ADPF	kg Sb-eq	6.09E-3	5.26E-5	9.43E-5	6.23E-3	3.97E-5	8.97E-5	1.65E-6	-2.06E-3	4.30E-3
GWP	kg CO2-eq	7.64E-1	7.17E-3	1.67E-2	7.88E-1	5.41E-3	4.68E-2	6.71E-4	-2.21E-1	6.20E-1
ODP	kg CFC-11-eq	4.23E-8	1.33E-9	1.71E-8	6.07E-8	1.00E-9	1.29E-9	4.01E-11	-1.46E-8	4.84E-8
POCP	kg ethene-eq	2.64E-3	4.32E-6	9.93E-6	2.65E-3	3.24E-6	9.54E-6	2.18E-7	-2.59E-4	2.41E-3
AP	kg SO2-eq	5.34E-2	3.15E-5	7.87E-5	5.35E-2	2.33E-5	6.21E-5	8.82E-7	-3.94E-3	4.96E-2
EP	kg PO4 3--eq	2.92E-3	6.22E-6	1.14E-5	2.94E-3	4.65E-6	9.71E-6	2.44E-7	-3.60E-4	2.59E-3
HTP	kg 1,4-DB-eq	8.70E+0	3.07E-3	1.85E-2	8.72E+0	2.31E-3	1.77E-2	8.15E-5	-5.73E-1	8.16E+0
FAETP	kg 1,4-DB-eq	2.02E-1	8.98E-5	6.43E-4	2.02E-1	6.77E-5	4.85E-4	5.06E-5	-2.44E-2	1.79E-1
MAETP	kg 1,4-DB-eq	8.83E+2	3.21E-1	1.49E+0	8.85E+2	2.42E-1	1.04E+0	5.27E-2	-8.41E+1	8.03E+2
TETP	kg 1,4-DB-eq	2.39E-2	1.09E-5	6.28E-4	2.45E-2	8.19E-6	5.47E-5	1.65E-7	-1.52E-3	2.30E-2
Environmental impact	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
GWP-total	kg CO2 eq	7.85E-1	7.24E-3	1.92E-2	8.12E-1	5.45E-3	4.69E-2	7.74E-4	-2.29E-1	6.36E-1
GWP-f	kg CO2 eq	7.84E-1	7.23E-3	1.53E-2	8.06E-1	5.45E-3	4.71E-2	7.74E-4	-2.25E-1	6.34E-1
GWP-b	kg CO2 eq	6.35E-4	4.37E-6	3.76E-3	4.40E-3	3.31E-6	-1.59E-4	7.60E-7	-3.25E-3	9.98E-4
GWP-luluc	kg CO2 eq	1.08E-3	2.57E-6	1.47E-4	1.23E-3	1.93E-6	1.13E-5	3.44E-8	-3.28E-4	9.18E-4
ODP	kg CFC11 eq	4.61E-8	1.67E-9	9.89E-9	5.76E-8	1.26E-9	1.52E-9	5.02E-11	-1.48E-8	4.56E-8
AP	mol H+ eq	6.10E-2	4.19E-5	9.92E-5	6.12E-2	3.10E-5	7.90E-5	1.17E-6	-4.74E-3	5.65E-2
EP-fw	kg P eq	4.88E-4	5.94E-8	4.07E-7	4.89E-4	4.48E-8	4.23E-7	1.45E-9	-3.95E-5	4.50E-4
EP-m	kg N eq	3.13E-3	1.49E-5	2.16E-5	3.17E-3	1.11E-5	2.08E-5	5.28E-7	-5.42E-4	2.66E-3
EP-T	mol N eq	4.59E-2	1.64E-4	2.33E-4	4.63E-2	1.22E-4	2.33E-4	4.56E-6	-7.60E-3	3.90E-2
POCP	kg NMVOC eq	1.23E-2	4.69E-5	5.94E-5	1.24E-2	3.50E-5	7.03E-5	1.47E-6	-1.82E-3	1.07E-2
ADP-mm	kg Sb eq	3.89E-3	1.86E-7	7.54E-7	3.89E-3	1.41E-7	3.31E-7	1.15E-9	-1.82E-3	2.07E-3
ADP-f	MJ	1.17E+1	1.11E-1	2.40E+0	1.42E+1	8.36E-2	1.86E-1	3.50E-3	-4.31E+0	1.02E+1
WDP	m3 depriv.	6.51E-1	3.40E-4	5.20E-2	7.04E-1	2.57E-4	2.80E-3	1.07E-4	-1.87E-1	5.20E-1
PM	disease inc.	1.37E-7	6.51E-10	1.01E-9	1.39E-7	4.92E-10	1.22E-9	2.34E-11	-1.80E-8	1.23E-7
IR	kBq U-235 eq	3.38E-2	4.85E-4	2.74E-2	6.16E-2	3.66E-4	6.34E-4	1.50E-5	-1.39E-2	4.87E-2
ETP-fw	CTUe	6.02E+2	9.00E-2	8.69E-1	6.03E+2	6.79E-2	3.33E-1	2.51E-3	-8.52E+1	5.18E+2
HTP-c	CTUh	8.74E-9	3.21E-12	2.30E-11	8.76E-9	2.42E-12	2.52E-11	6.55E-14	-1.91E-9	6.88E-9
HTP-nc	CTUh	7.04E-7	1.07E-10	6.24E-10	7.05E-7	8.10E-11	4.35E-10	1.72E-12	-1.22E-7	5.84E-7
SQP	Pt	9.23E+0	9.46E-2	6.65E-1	9.99E+0	7.16E-2	1.95E-1	7.93E-3	-1.77E+0	8.50E+0

Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	2.00E+0	1.59E-3	3.31E-1	2.33E+0	1.20E-3	1.29E-2	6.66E-5	-5.35E-1	1.81E+0
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	2.00E+0	1.59E-3	3.31E-1	2.33E+0	1.20E-3	1.29E-2	6.66E-5	-5.35E-1	1.81E+0
PENRE	MJ	1.25E+1	1.18E-1	2.42E+0	1.50E+1	8.88E-2	1.98E-1	3.71E-3	-4.61E+0	1.07E+1
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	1.25E+1	1.18E-1	2.42E+0	1.50E+1	8.88E-2	1.98E-1	3.71E-3	-4.61E+0	1.07E+1
PET	MJ	1.45E+1	1.19E-1	2.75E+0	1.73E+1	9.00E-2	2.11E-1	3.78E-3	-5.15E+0	1.25E+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	1.64E-2	1.25E-5	1.57E-3	1.80E-2	9.47E-6	9.16E-5	3.94E-6	-4.66E-3	1.34E-2
Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	4.85E-4	2.83E-7	1.63E-7	4.85E-4	2.14E-7	3.57E-7	4.87E-9	-2.28E-4	2.57E-4
NHWD	kg	2.33E-1	6.85E-3	4.55E-3	2.45E-1	5.18E-3	8.47E-3	2.07E-2	-8.03E-2	1.99E-1
RWD	kg	2.84E-5	7.54E-7	2.44E-7	2.94E-5	5.69E-7	7.95E-7	2.29E-8	-1.12E-5	1.96E-5
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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