

Environmental Profile

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

Ecochain v3.5.64



Product: 3080679 - TEGRA 1000 CONE W/ADAPTER
 Unit: 1 piece
 Manufacturer: Wavin - SE - Eskilstuna

LCA standard: EN15804+A2 (2019)
 Standard database: Worldwide - Ecoinvent v 3.6 Cut-Off
 Externally verified: Yes
 Issue date: 20-06-2022
 End of validity: 20-06-2027
 Verifier: Harry van Ewijk - SGS Search



Wavin Tegra 1000 PP can be installed in sewer- and rainwater applications. The manhole system consist of a base with different flow profiles and connections as well as a shaft pipe and cone. Tegra 1000 PP can be installed in heavy traffic area according to LM 1 (DIN EN 1991-2/NA) former SLW60.

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 - SE - Eskilstuna (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

GWP-total = EF Climate Change [kg CO2 eq]; **GWP-f** = EF Climate change - Fossil [kg CO2 eq]; **GWP-b** = EF Climate Change - Biogenic [kg CO2 eq]; **GWP-luluc** = EF 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]

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Results

Environmental impact	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
GWP-total	kg CO2 eq	1.39E+2	4.92E+0	2.76E+0	1.46E+2	1.03E+0	3.62E+1	4.84E-1	-5.55E+1	1.29E+2
GWP-f	kg CO2 eq	1.40E+2	4.92E+0	2.00E+0	1.47E+2	1.03E+0	3.42E+1	4.84E-1	-5.53E+1	1.28E+2
GWP-b	kg CO2 eq	-1.86E+0	2.27E-3	5.26E-1	-1.33E+0	6.24E-4	1.96E+0	4.22E-4	-1.52E-1	4.78E-1
GWP-luluc	kg CO2 eq	1.04E-1	1.80E-3	2.33E-1	3.38E-1	3.63E-4	5.88E-3	8.12E-6	-8.25E-3	3.36E-1
ODP	kg CFC11 eq	7.37E-6	1.09E-6	2.27E-7	8.68E-6	2.37E-7	7.82E-7	1.21E-8	-2.43E-6	7.29E-6
AP	mol H+ eq	5.83E-1	2.85E-2	1.70E-2	6.29E-1	5.85E-3	3.32E-2	2.89E-4	-1.45E-1	5.23E-1
EP-fw	kg P eq	4.31E-3	4.96E-5	3.69E-5	4.40E-3	8.45E-6	1.71E-4	3.74E-7	-5.90E-4	3.99E-3
EP-m	kg N eq	1.01E-1	1.00E-2	5.02E-3	1.16E-1	2.09E-3	9.71E-3	1.89E-4	-2.63E-2	1.01E-1
EP-T	mol N eq	1.14E+0	1.11E-1	5.51E-2	1.30E+0	2.31E-2	1.07E-1	1.17E-3	-2.91E-1	1.14E+0
POCP	kg NMVOC eq	4.47E-1	3.16E-2	1.53E-2	4.94E-1	6.59E-3	3.36E-2	4.41E-4	-1.35E-1	3.99E-1
ADP-mm	kg Sb eq	1.50E-3	1.25E-4	6.02E-5	1.68E-3	2.66E-5	1.30E-4	2.90E-7	-3.19E-4	1.52E-3
ADP-f	MJ	3.78E+3	7.42E+1	1.99E+1	3.88E+3	1.58E+1	1.03E+2	8.85E-1	-1.62E+3	2.38E+3
WDP	m3 depriv.	8.21E+1	2.65E-1	1.28E+1	9.51E+1	4.84E-2	1.99E+0	4.05E-3	-2.66E+1	7.05E+1
PM	disease inc.	4.80E-6	4.42E-7	2.86E-7	5.53E-6	9.27E-8	5.40E-7	6.09E-9	-1.23E-6	4.94E-6
IR	kBq U-235 eq	5.45E+0	3.11E-1	5.91E-2	5.82E+0	6.89E-2	3.12E-1	4.11E-3	-6.99E-1	5.51E+0
ETP-fw	CTUe	1.59E+3	6.61E+1	5.54E+1	1.71E+3	1.28E+1	1.18E+2	7.41E-1	-2.48E+2	1.59E+3
HTP-c	CTUh	7.29E-8	2.15E-9	2.19E-9	7.73E-8	4.55E-10	1.40E-8	2.13E-11	-8.57E-9	8.32E-8
HTP-nc	CTUh	1.40E-6	7.23E-8	5.97E-8	1.53E-6	1.53E-8	1.77E-7	4.75E-10	8.06E-8	1.80E-6
SQP	Pt	5.20E+2	6.43E+1	2.61E+0	5.87E+2	1.35E+1	8.28E+1	2.27E+0	-4.56E+1	6.40E+2
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	1.89E+2	9.29E-1	1.25E+2	3.15E+2	2.26E-1	5.08E+0	3.45E-2	-1.86E+1	3.02E+2
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	1.89E+2	9.29E-1	1.25E+2	3.15E+2	2.26E-1	5.08E+0	3.45E-2	-1.86E+1	3.02E+2
PENRE	MJ	4.06E+3	7.87E+1	2.11E+1	4.16E+3	1.67E+1	1.09E+2	9.39E-1	-1.75E+3	2.54E+3
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	4.06E+3	7.87E+1	2.11E+1	4.16E+3	1.67E+1	1.09E+2	9.39E-1	-1.75E+3	2.54E+3
PET	MJ	4.24E+3	7.97E+1	1.47E+2	4.47E+3	1.70E+1	1.14E+2	9.74E-1	-1.77E+3	2.84E+3
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	1.58E+0	9.03E-3	3.04E-1	1.90E+0	1.78E-3	5.92E-2	1.09E-3	-4.02E-1	1.56E+0

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	2.59E-3	1.88E-4	3.03E-5	2.80E-3	4.03E-5	1.69E-4	1.06E-6	-6.60E-4	2.36E-3
NHWD	kg	9.23E+0	4.70E+0	9.28E-2	1.40E+1	9.77E-1	5.23E+0	3.91E+0	-1.35E+0	2.28E+1
RWD	kg	4.85E-3	4.87E-4	8.41E-5	5.42E-3	1.07E-4	3.97E-4	5.79E-6	-6.58E-4	5.27E-3
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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