

# Environmental Profile

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

Ecochain v3.5.64



Product: 3062954 - Tegra 1000x160 TP4 45° Right BQ 4,5  
 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	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]

## Statement of Confidentiality

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# Results

Environmental impact	Unit	A3	A1-A3	C2	C3	C4	D	Total
GWP-total	kg CO2 eq	4.26E+0	4.26E+0	0	0	0	0	4.26E+0
GWP-f	kg CO2 eq	3.09E+0	3.09E+0	0	0	0	0	3.09E+0
GWP-b	kg CO2 eq	8.12E-1	8.12E-1	0	0	0	0	8.12E-1
GWP-luluc	kg CO2 eq	3.59E-1	3.59E-1	0	0	0	0	3.59E-1
ODP	kg CFC11 eq	3.50E-7	3.50E-7	0	0	0	0	3.50E-7
AP	mol H+ eq	2.62E-2	2.62E-2	0	0	0	0	2.62E-2
EP-fw	kg P eq	5.70E-5	5.70E-5	0	0	0	0	5.70E-5
EP-m	kg N eq	7.75E-3	7.75E-3	0	0	0	0	7.75E-3
EP-T	mol N eq	8.51E-2	8.51E-2	0	0	0	0	8.51E-2
POCP	kg NMVOC eq	2.36E-2	2.36E-2	0	0	0	0	2.36E-2
ADP-mm	kg Sb eq	9.29E-5	9.29E-5	0	0	0	0	9.29E-5
ADP-f	MJ	3.07E+1	3.07E+1	0	0	0	0	3.07E+1
WDP	m3 depriv.	1.98E+1	1.98E+1	0	0	0	0	1.98E+1
PM	disease inc.	4.41E-7	4.41E-7	0	0	0	0	4.41E-7
IR	kBq U-235 eq	9.12E-2	9.12E-2	0	0	0	0	9.12E-2
ETP-fw	CTUe	8.56E+1	8.56E+1	0	0	0	0	8.56E+1
HTP-c	CTUh	3.38E-9	3.38E-9	0	0	0	0	3.38E-9
HTP-nc	CTUh	9.21E-8	9.21E-8	0	0	0	0	9.21E-8
SQP	Pt	4.03E+0	4.03E+0	0	0	0	0	4.03E+0
Resource use	Unit	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	1.94E+2	1.94E+2	0	0	0	0	1.94E+2
PERM	MJ	0	0	0	0	0	0	0
PERT	MJ	1.94E+2	1.94E+2	0	0	0	0	1.94E+2
PENRE	MJ	3.26E+1	3.26E+1	0	0	0	0	3.26E+1
PENRM	MJ	0	0	0	0	0	0	0
PENRT	MJ	3.26E+1	3.26E+1	0	0	0	0	3.26E+1
PET	MJ	2.26E+2	2.26E+2	0	0	0	0	2.26E+2
SM	kg	0	0	0	0	0	0	0
RSF	MJ	0	0	0	0	0	0	0
NRSF	MJ	0	0	0	0	0	0	0
FW	m3	4.70E-1	4.70E-1	0	0	0	0	4.70E-1

Output flows and waste categories	Unit	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	4.67E-5	4.67E-5	0	0	0	0	4.67E-5
NHWD	kg	1.43E-1	1.43E-1	0	0	0	0	1.43E-1
RWD	kg	1.30E-4	1.30E-4	0	0	0	0	1.30E-4
CRU	kg	0	0	0	0	0	0	0
MFR	kg	0	0	0	0	0	0	0
MER	kg	0	0	0	0	0	0	0
EE	MJ	0	0	0	0	0	0	0
EET	MJ	0	0	0	0	0	0	0
EEE	MJ	0	0	0	0	0	0	0



Ecochain Technologies BV  
H.J.E. Wenckebachweg 123, 1096 AM Amsterdam, The Netherlands  
<https://www.ecochain.com>  
+31 20 3035 777