

Environmental Profile

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

Ecochain v4.0.3



Product: 3041540 - Tegra NG2 1000 PP Straight DN160 SW
 Unit: 1 piece
 Manufacturer: Wavin

LCA standard: EN15804+A2 (2019)
 Standard database: Worldwide - Ecoinvent v 3.6 Cut-Off
 Externally verified: Yes
 Issue date: 26-07-2023
 End of validity: 26-07-2028
 Verifier: Martijn van Hövell - SGS Search



Wavin's Tegra drains that Wavin offers are also part of a sustainable total solution for your sewer system. Your system becomes accessible for inspection and maintenance-friendly thanks to our flow profiles. Tegra wells are resistant to acids, bases and solvents.

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 (2021). (☑ = 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 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	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
GWP-total	kg CO2 eq	1.00E+2	3.75E+0	1.53E+0	1.05E+2	1.42E+0	5.51E+1	6.67E-1	-6.63E+1	9.62E+1
GWP-f	kg CO2 eq	1.15E+2	3.75E+0	1.55E+0	1.20E+2	1.41E+0	4.12E+1	6.67E-1	-6.61E+1	9.74E+1
GWP-b	kg CO2 eq	-1.48E+1	1.73E-3	-1.81E-2	-1.48E+1	8.59E-4	1.39E+1	5.80E-4	-2.25E-1	-1.15E+0
GWP-luluc	kg CO2 eq	3.92E-2	1.37E-3	1.69E-3	4.23E-2	5.01E-4	7.97E-3	1.13E-5	-1.90E-2	3.18E-2
ODP	kg CFC11 eq	3.37E-6	8.28E-7	8.73E-8	4.28E-6	3.26E-7	1.05E-6	1.67E-8	-2.62E-6	3.05E-6
AP	mol H+ eq	4.26E-1	2.17E-2	1.69E-2	4.65E-1	8.06E-3	4.39E-2	3.99E-4	-1.93E-1	3.25E-1
EP-fw	kg P eq	1.80E-3	3.78E-5	9.59E-5	1.94E-3	1.16E-5	2.30E-4	5.20E-7	-7.93E-4	1.38E-3
EP-m	kg N eq	7.28E-2	7.66E-3	1.74E-3	8.22E-2	2.88E-3	1.28E-2	2.60E-4	-3.52E-2	6.29E-2
EP-T	mol N eq	8.36E-1	8.45E-2	2.07E-2	9.42E-1	3.18E-2	1.41E-1	1.62E-3	-3.92E-1	7.24E-1
POCP	kg NMVOC eq	3.71E-1	2.41E-2	6.95E-3	4.02E-1	9.08E-3	4.46E-2	6.08E-4	-1.77E-1	2.79E-1
ADP-mm	kg Sb eq	2.61E-3	9.50E-5	2.16E-4	2.92E-3	3.66E-5	1.74E-4	4.02E-7	-4.56E-4	2.68E-3
ADP-f	MJ	4.01E+3	5.65E+1	1.48E+1	4.08E+3	2.17E+1	1.39E+2	1.22E+0	-2.06E+3	2.19E+3
WDP	m3 depriv.	7.75E+1	2.02E-1	6.00E-1	7.83E+1	6.66E-2	2.71E+0	6.18E-3	-3.55E+1	4.56E+1
PM	disease inc.	4.11E-6	3.37E-7	1.01E-7	4.54E-6	1.28E-7	7.22E-7	8.39E-9	-1.76E-6	3.64E-6
IR	kBq U-235 eq	2.41E+0	2.37E-1	1.10E-2	2.66E+0	9.49E-2	4.20E-1	5.66E-3	-1.03E+0	2.15E+0
ETP-fw	CTUe	7.58E+2	5.04E+1	1.40E+2	9.48E+2	1.76E+1	1.56E+2	1.02E+0	-3.04E+2	8.19E+2
HTP-c	CTUh	3.85E-8	1.64E-9	7.18E-9	4.74E-8	6.27E-10	1.90E-8	2.98E-11	-1.57E-8	5.13E-8
HTP-nc	CTUh	8.60E-7	5.52E-8	1.80E-7	1.10E-6	2.10E-8	2.33E-7	6.58E-10	-3.45E-7	1.01E-6
SQP	Pt	1.49E+3	4.91E+1	2.52E+1	1.56E+3	1.86E+1	1.11E+2	3.13E+0	-1.03E+3	6.60E+2
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	3.23E+2	7.08E-1	2.73E+2	5.97E+2	3.11E-1	6.83E+0	4.73E-2	-1.72E+2	4.32E+2
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	3.23E+2	7.08E-1	2.73E+2	5.97E+2	3.11E-1	6.83E+0	4.73E-2	-1.72E+2	4.32E+2
PENRE	MJ	4.31E+3	6.00E+1	1.57E+1	4.38E+3	2.30E+1	1.48E+2	1.30E+0	-2.22E+3	2.34E+3
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	4.31E+3	6.00E+1	1.57E+1	4.38E+3	2.30E+1	1.48E+2	1.30E+0	-2.22E+3	2.34E+3
PET	MJ	4.63E+3	6.07E+1	2.89E+2	4.98E+3	2.34E+1	1.55E+2	1.34E+0	-2.39E+3	2.77E+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	1.18E+0	6.89E-3	1.66E-2	1.21E+0	2.46E-3	8.00E-2	1.50E-3	-5.40E-1	7.50E-1

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	7.45E-4	1.43E-4	3.13E-9	8.88E-4	5.55E-5	2.26E-4	1.47E-6	-5.46E-4	6.26E-4
NHWD	kg	6.92E+0	3.59E+0	1.23E-2	1.05E+1	1.35E+0	6.82E+0	5.38E+0	-2.10E+0	2.20E+1
RWD	kg	2.35E-3	3.71E-4	1.17E-9	2.72E-3	1.48E-4	5.33E-4	7.97E-6	-9.52E-4	2.46E-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



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