Environmental Profile

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

Ecochain v4.0.3

Product:	3023747 - Tegra NG 1000 PP Straight DN200 SW
Unit:	1 piece
Manufacturer:	Wavin

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.

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

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

Results

Environmental impact	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
GWP-total	kg CO2 eq	9.86E+1	3.78E+0	1.58E+0	1.04E+2	1.42E+0	5.52E+1	6.69E-1	-6.66E+1	9.47E+1
GWP-f	kg CO2 eq	1.13E+2	3.77E+0	1.60E+0	1.19E+2	1.42E+0	4.13E+1	6.69E-1	-6.64E+1	9.57E+1
GWP-b	kg CO2 eq	-1.47E+1	1.74E-3	-1.87E-2	-1.47E+1	8.62E-4	1.39E+1	5.83E-4	-2.25E-1	-1.03E+0
GWP-luluc	kg CO2 eq	3.87E-2	1.38E-3	1.75E-3	4.18E-2	5.02E-4	8.00E-3	1.14E-5	-1.91E-2	3.12E-2
ODP	kg CFC11 eq	3.29E-6	8.33E-7	9.02E-8	4.21E-6	3.27E-7	1.05E-6	1.68E-8	-2.62E-6	2.98E-6
AP	mol H+ eq	4.20E-1	2.19E-2	1.75E-2	4.60E-1	8.09E-3	4.41E-2	4.00E-4	-1.93E-1	3.19E-1
EP-fw	kg P eq	1.78E-3	3.81E-5	9.91E-5	1.91E-3	1.17E-5	2.31E-4	5.22E-7	-7.96E-4	1.36E-3
EP-m	kg N eq	7.18E-2	7.71E-3	1.79E-3	8.13E-2	2.89E-3	1.29E-2	2.61E-4	-3.53E-2	6.20E-2
EP-T	mol N eq	8.26E-1	8.50E-2	2.14E-2	9.32E-1	3.19E-2	1.42E-1	1.63E-3	-3.93E-1	7.14E-1
POCP	kg NMVOC eq	3.66E-1	2.43E-2	7.19E-3	3.97E-1	9.12E-3	4.47E-2	6.10E-4	-1.78E-1	2.74E-1
ADP-mm	kg Sb eq	2.58E-3	9.56E-5	2.24E-4	2.90E-3	3.67E-5	1.74E-4	4.04E-7	-4.58E-4	2.65E-3
ADP-f	MJ	3.96E+3	5.69E+1	1.53E+1	4.03E+3	2.18E+1	1.39E+2	1.23E+0	-2.07E+3	2.13E+3
WDP	m3 depriv.	7.65E+1	2.04E-1	6.20E-1	7.73E+1	6.69E-2	2.72E+0	6.20E-3	-3.57E+1	4.44E+1
PM	disease inc.	4.05E-6	3.39E-7	1.05E-7	4.49E-6	1.28E-7	7.25E-7	8.42E-9	-1.76E-6	3.59E-6
IR	kBq U-235 eq	2.37E+0	2.38E-1	1.13E-2	2.62E+0	9.52E-2	4.22E-1	5.68E-3	-1.03E+0	2.11E+0
ETP-fw	CTUe	7.44E+2	5.07E+1	1.44E+2	9.39E+2	1.77E+1	1.57E+2	1.03E+0	-3.05E+2	8.10E+2
HTP-c	CTUh	3.81E-8	1.65E-9	7.42E-9	4.72E-8	6.30E-10	1.90E-8	3.00E-11	-1.57E-8	5.12E-8
HTP-nc	CTUh	8.47E-7	5.55E-8	1.86E-7	1.09E-6	2.11E-8	2.34E-7	6.60E-10	-3.46E-7	9.98E-7
SQP	Pt	1.47E+3	4.94E+1	2.61E+1	1.55E+3	1.86E+1	1.11E+2	3.14E+0	-1.03E+3	6.49E+2
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	3.13E+2	7.12E-1	2.82E+2	5.96E+2	3.13E-1	6.85E+0	4.74E-2	-1.72E+2	4.31E+2
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	3.13E+2	7.12E-1	2.82E+2	5.96E+2	3.13E-1	6.85E+0	4.74E-2	-1.72E+2	4.31E+2
PENRE	MJ	4.25E+3	6.04E+1	1.63E+1	4.32E+3	2.31E+1	1.48E+2	1.30E+0	-2.23E+3	2.27E+3
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	4.25E+3	6.04E+1	1.63E+1	4.32E+3	2.31E+1	1.48E+2	1.30E+0	-2.23E+3	2.27E+3
PET	MJ	4.56E+3	6.11E+1	2.99E+2	4.92E+3	2.34E+1	1.55E+2	1.35E+0	-2.40E+3	2.70E+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	1.17E+0	6.93E-3	1.72E-2	1.19E+0	2.47E-3	8.03E-2	1.51E-3	-5.42E-1	7.33E-1

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	7.42E-4	1.44E-4	3.23E-9	8.86E-4	5.57E-5	2.27E-4	1.48E-6	-5.48E-4	6.23E-4
NHWD	kg	6.89E+0	3.61E+0	1.27E-2	1.05E+1	1.35E+0	6.84E+0	5.40E+0	-2.11E+0	2.20E+1
RWD	kg	2.31E-3	3.74E-4	1.21E-9	2.68E-3	1.48E-4	5.35E-4	8.00E-6	-9.55E-4	2.42E-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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