Environmental Profile

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

Ecochain v4.0.3

Product:	3041585 - Tegra NG2 1000 PP Bend 90° 315 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	1.15E+2	4.72E+0	1.75E+0	1.21E+2	1.67E+0	6.23E+1	7.85E-1	-7.79E+1	1.08E+2
GWP-f	kg CO2 eq	1.32E+2	4.71E+0	1.77E+0	1.38E+2	1.66E+0	4.84E+1	7.85E-1	-7.76E+1	1.11E+2
GWP-b	kg CO2 eq	-1.66E+1	2.18E-3	-2.07E-2	-1.66E+1	1.01E-3	1.39E+1	6.83E-4	-2.65E-1	-2.98E+0
GWP-luluc	kg CO2 eq	4.68E-2	1.73E-3	1.93E-3	5.05E-2	5.89E-4	9.38E-3	1.33E-5	-2.13E-2	3.92E-2
ODP	kg CFC11 eq	4.10E-6	1.04E-6	9.99E-8	5.24E-6	3.84E-7	1.23E-6	1.97E-8	-3.04E-6	3.83E-6
AP	mol H+ eq	4.91E-1	2.73E-2	1.94E-2	5.38E-1	9.48E-3	5.16E-2	4.69E-4	-2.25E-1	3.75E-1
EP-fw	kg P eq	2.10E-3	4.75E-5	1.10E-4	2.26E-3	1.37E-5	2.71E-4	6.12E-7	-9.20E-4	1.62E-3
EP-m	kg N eq	8.41E-2	9.63E-3	1.99E-3	9.57E-2	3.39E-3	1.51E-2	3.06E-4	-4.09E-2	7.35E-2
EP-T	mol N eq	9.67E-1	1.06E-1	2.37E-2	1.10E+0	3.74E-2	1.66E-1	1.91E-3	-4.55E-1	8.46E-1
POCP	kg NMVOC eq	4.26E-1	3.03E-2	7.96E-3	4.65E-1	1.07E-2	5.23E-2	7.15E-4	-2.06E-1	3.22E-1
ADP-mm	kg Sb eq	3.34E-3	1.19E-4	2.48E-4	3.71E-3	4.31E-5	2.04E-4	4.73E-7	-5.33E-4	3.43E-3
ADP-f	MJ	4.57E+3	7.11E+1	1.69E+1	4.66E+3	2.56E+1	1.63E+2	1.44E+0	-2.42E+3	2.42E+3
WDP	m3 depriv.	8.84E+1	2.54E-1	6.86E-1	8.93E+1	7.84E-2	3.19E+0	7.22E-3	-4.18E+1	5.08E+1
PM	disease inc.	4.75E-6	4.23E-7	1.16E-7	5.29E-6	1.50E-7	8.49E-7	9.88E-9	-2.03E-6	4.27E-6
IR	kBq U-235 eq	2.83E+0	2.98E-1	1.25E-2	3.14E+0	1.12E-1	4.94E-1	6.66E-3	-1.20E+0	2.56E+0
ETP-fw	CTUe	9.22E+2	6.34E+1	1.60E+2	1.15E+3	2.08E+1	1.84E+2	1.20E+0	-3.49E+2	1.00E+3
HTP-c	CTUh	4.48E-8	2.06E-9	8.22E-9	5.51E-8	7.38E-10	2.23E-8	3.51E-11	-1.76E-8	6.06E-8
HTP-nc	CTUh	1.00E-6	6.93E-8	2.06E-7	1.28E-6	2.47E-8	2.74E-7	7.74E-10	-3.99E-7	1.18E-6
SQP	Pt	1.69E+3	6.16E+1	2.89E+1	1.78E+3	2.19E+1	1.30E+2	3.69E+0	-1.04E+3	8.94E+2
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	3.80E+2	8.90E-1	3.13E+2	6.93E+2	3.67E-1	8.03E+0	5.57E-2	-1.76E+2	5.25E+2
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	3.80E+2	8.90E-1	3.13E+2	6.93E+2	3.67E-1	8.03E+0	5.57E-2	-1.76E+2	5.25E+2
PENRE	MJ	4.90E+3	7.54E+1	1.80E+1	4.99E+3	2.71E+1	1.74E+2	1.52E+0	-2.61E+3	2.59E+3
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	4.90E+3	7.54E+1	1.80E+1	4.99E+3	2.71E+1	1.74E+2	1.52E+0	-2.61E+3	2.59E+3
PET	MJ	5.28E+3	7.63E+1	3.31E+2	5.69E+3	2.75E+1	1.82E+2	1.58E+0	-2.79E+3	3.11E+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	1.36E+0	8.66E-3	1.90E-2	1.39E+0	2.89E-3	9.41E-2	1.77E-3	-6.34E-1	8.52E-1

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	8.81E-4	1.80E-4	3.58E-9	1.06E-3	6.54E-5	2.66E-4	1.73E-6	-6.30E-4	7.63E-4
NHWD	kg	8.16E+0	4.51E+0	1.41E-2	1.27E+1	1.58E+0	8.01E+0	6.33E+0	-2.38E+0	2.62E+1
RWD	kg	2.79E-3	4.67E-4	1.33E-9	3.26E-3	1.74E-4	6.26E-4	9.38E-6	-1.10E-3	2.96E-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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