Environmental Profile

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

Ecochain v4.0.3

Product:	3041584 - Tegra NG2 1000 PP Bend 120° 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	4.71E+0	1.73E+0	1.21E+2	1.66E+0	6.23E+1	7.84E-1	-7.78E+1	1.08E+2
GWP-f	kg CO2 eq	1.31E+2	4.70E+0	1.75E+0	1.38E+2	1.66E+0	4.84E+1	7.84E-1	-7.75E+1	1.11E+2
GWP-b	kg CO2 eq	-1.66E+1	2.17E-3	-2.04E-2	-1.66E+1	1.01E-3	1.39E+1	6.82E-4	-2.64E-1	-2.98E+0
GWP-luluc	kg CO2 eq	4.68E-2	1.72E-3	1.91E-3	5.04E-2	5.88E-4	9.37E-3	1.33E-5	-2.12E-2	3.91E-2
ODP	kg CFC11 eq	4.10E-6	1.04E-6	9.86E-8	5.23E-6	3.83E-7	1.23E-6	1.97E-8	-3.04E-6	3.83E-6
AP	mol H+ eq	4.90E-1	2.73E-2	1.91E-2	5.37E-1	9.47E-3	5.15E-2	4.69E-4	-2.25E-1	3.74E-1
EP-fw	kg P eq	2.09E-3	4.74E-5	1.08E-4	2.25E-3	1.37E-5	2.70E-4	6.11E-7	-9.18E-4	1.62E-3
EP-m	kg N eq	8.39E-2	9.61E-3	1.96E-3	9.55E-2	3.39E-3	1.50E-2	3.05E-4	-4.09E-2	7.34E-2
EP-T	mol N eq	9.65E-1	1.06E-1	2.34E-2	1.09E+0	3.73E-2	1.65E-1	1.90E-3	-4.55E-1	8.44E-1
POCP	kg NMVOC eq	4.26E-1	3.03E-2	7.85E-3	4.64E-1	1.07E-2	5.23E-2	7.14E-4	-2.06E-1	3.21E-1
ADP-mm	kg Sb eq	3.32E-3	1.19E-4	2.44E-4	3.69E-3	4.30E-5	2.04E-4	4.72E-7	-5.32E-4	3.40E-3
ADP-f	MJ	4.56E+3	7.09E+1	1.67E+1	4.65E+3	2.55E+1	1.63E+2	1.43E+0	-2.42E+3	2.42E+3
WDP	m3 depriv.	8.82E+1	2.54E-1	6.77E-1	8.92E+1	7.83E-2	3.18E+0	7.21E-3	-4.17E+1	5.07E+1
PM	disease inc.	4.74E-6	4.22E-7	1.15E-7	5.28E-6	1.50E-7	8.47E-7	9.86E-9	-2.02E-6	4.26E-6
IR	kBq U-235 eq	2.83E+0	2.97E-1	1.24E-2	3.14E+0	1.12E-1	4.93E-1	6.65E-3	-1.20E+0	2.55E+0
ETP-fw	CTUe	9.20E+2	6.33E+1	1.58E+2	1.14E+3	2.07E+1	1.84E+2	1.20E+0	-3.48E+2	9.98E+2
HTP-c	CTUh	4.47E-8	2.05E-9	8.11E-9	5.49E-8	7.37E-10	2.22E-8	3.50E-11	-1.76E-8	6.03E-8
HTP-nc	CTUh	1.00E-6	6.92E-8	2.03E-7	1.27E-6	2.47E-8	2.74E-7	7.73E-10	-3.98E-7	1.17E-6
SQP	Pt	1.69E+3	6.15E+1	2.85E+1	1.78E+3	2.18E+1	1.30E+2	3.68E+0	-1.04E+3	8.92E+2
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	3.79E+2	8.88E-1	3.09E+2	6.89E+2	3.66E-1	8.02E+0	5.56E-2	-1.76E+2	5.21E+2
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	3.79E+2	8.88E-1	3.09E+2	6.89E+2	3.66E-1	8.02E+0	5.56E-2	-1.76E+2	5.21E+2
PENRE	MJ	4.89E+3	7.53E+1	1.78E+1	4.99E+3	2.71E+1	1.74E+2	1.52E+0	-2.60E+3	2.58E+3
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	4.89E+3	7.53E+1	1.78E+1	4.99E+3	2.71E+1	1.74E+2	1.52E+0	-2.60E+3	2.58E+3
PET	MJ	5.27E+3	7.62E+1	3.26E+2	5.67E+3	2.75E+1	1.82E+2	1.58E+0	-2.78E+3	3.10E+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	8.64E-3	1.88E-2	1.38E+0	2.89E-3	9.39E-2	1.77E-3	-6.33E-1	8.50E-1

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	8.77E-4	1.80E-4	3.53E-9	1.06E-3	6.53E-5	2.66E-4	1.73E-6	-6.29E-4	7.60E-4
NHWD	kg	8.12E+0	4.50E+0	1.39E-2	1.26E+1	1.58E+0	8.00E+0	6.32E+0	-2.38E+0	2.62E+1
RWD	kg	2.78E-3	4.66E-4	1.32E-9	3.25E-3	1.74E-4	6.25E-4	9.37E-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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