Environmental Profile

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

Ecochain v4.0.3

Product:	3041582 - Tegra NG2 1000 PP Cross 90° 250 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	1.33E+2	5.54E+0	1.91E+0	1.41E+2	1.84E+0	6.74E+1	8.68E-1	-8.61E+1	1.25E+2
GWP-f	kg CO2 eq	1.53E+2	5.53E+0	1.93E+0	1.60E+2	1.84E+0	5.35E+1	8.68E-1	-8.58E+1	1.30E+2
GWP-b	kg CO2 eq	-1.93E+1	2.55E-3	-2.26E-2	-1.93E+1	1.12E-3	1.39E+1	7.56E-4	-2.93E-1	-5.74E+0
GWP-luluc	kg CO2 eq	5.74E-2	2.03E-3	2.10E-3	6.15E-2	6.51E-4	1.04E-2	1.47E-5	-2.28E-2	4.97E-2
ODP	kg CFC11 eq	5.32E-6	1.22E-6	1.09E-7	6.65E-6	4.24E-7	1.36E-6	2.18E-8	-3.35E-6	5.11E-6
AP	mol H+ eq	5.76E-1	3.21E-2	2.11E-2	6.30E-1	1.05E-2	5.70E-2	5.19E-4	-2.48E-1	4.50E-1
EP-fw	kg P eq	2.49E-3	5.58E-5	1.20E-4	2.67E-3	1.51E-5	2.99E-4	6.76E-7	-1.01E-3	1.97E-3
EP-m	kg N eq	9.91E-2	1.13E-2	2.16E-3	1.13E-1	3.75E-3	1.66E-2	3.38E-4	-4.50E-2	8.83E-2
EP-T	mol N eq	1.14E+0	1.25E-1	2.58E-2	1.29E+0	4.13E-2	1.83E-1	2.11E-3	-5.00E-1	1.01E+0
POCP	kg NMVOC eq	4.98E-1	3.56E-2	8.66E-3	5.42E-1	1.18E-2	5.78E-2	7.91E-4	-2.27E-1	3.85E-1
ADP-mm	kg Sb eq	4.53E-3	1.40E-4	2.70E-4	4.94E-3	4.76E-5	2.25E-4	5.23E-7	-5.87E-4	4.62E-3
ADP-f	MJ	5.25E+3	8.34E+1	1.84E+1	5.35E+3	2.83E+1	1.80E+2	1.59E+0	-2.68E+3	2.88E+3
WDP	m3 depriv.	1.02E+2	2.98E-1	7.47E-1	1.03E+2	8.67E-2	3.52E+0	7.89E-3	-4.63E+1	6.00E+1
PM	disease inc.	5.62E-6	4.97E-7	1.26E-7	6.24E-6	1.66E-7	9.37E-7	1.09E-8	-2.22E-6	5.13E-6
IR	kBq U-235 eq	3.42E+0	3.50E-1	1.37E-2	3.79E+0	1.23E-1	5.45E-1	7.37E-3	-1.32E+0	3.15E+0
ETP-fw	CTUe	1.17E+3	7.44E+1	1.74E+2	1.42E+3	2.29E+1	2.03E+2	1.33E+0	-3.81E+2	1.27E+3
HTP-c	CTUh	5.40E-8	2.41E-9	8.95E-9	6.54E-8	8.16E-10	2.45E-8	3.87E-11	-1.90E-8	7.18E-8
HTP-nc	CTUh	1.22E-6	8.14E-8	2.24E-7	1.52E-6	2.73E-8	3.03E-7	8.55E-10	-4.38E-7	1.41E-6
SQP	Pt	2.00E+3	7.24E+1	3.15E+1	2.10E+3	2.42E+1	1.44E+2	4.08E+0	-1.05E+3	1.22E+3
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	5.04E+2	1.04E+0	3.40E+2	8.46E+2	4.05E-1	8.88E+0	6.16E-2	-1.80E+2	6.75E+2
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	5.04E+2	1.04E+0	3.40E+2	8.46E+2	4.05E-1	8.88E+0	6.16E-2	-1.80E+2	6.75E+2
PENRE	MJ	5.63E+3	8.86E+1	1.96E+1	5.74E+3	3.00E+1	1.92E+2	1.69E+0	-2.89E+3	3.07E+3
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	5.63E+3	8.86E+1	1.96E+1	5.74E+3	3.00E+1	1.92E+2	1.69E+0	-2.89E+3	3.07E+3
PET	MJ	6.13E+3	8.96E+1	3.60E+2	6.58E+3	3.04E+1	2.01E+2	1.75E+0	-3.07E+3	3.75E+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	1.58E+0	1.02E-2	2.07E-2	1.61E+0	3.20E-3	1.04E-1	1.96E-3	-7.01E-1	1.02E+0

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	1.07E-3	2.11E-4	3.90E-9	1.28E-3	7.23E-5	2.94E-4	1.91E-6	-6.90E-4	9.56E-4
NHWD	kg	9.92E+0	5.29E+0	1.54E-2	1.52E+1	1.75E+0	8.85E+0	7.00E+0	-2.58E+0	3.02E+1
RWD	kg	3.45E-3	5.48E-4	1.45E-9	4.00E-3	1.92E-4	6.92E-4	1.04E-5	-1.21E-3	3.68E-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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