Environmental Profile

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

Ecochain v4.0.3

Product:	3041586 - Tegra NG2 1000 PP Cross 45° 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	1.25E+2	5.51E+0	1.74E+0	1.32E+2	1.83E+0	6.71E+1	8.62E-1	-8.56E+1	1.16E+2
GWP-f	kg CO2 eq	1.45E+2	5.51E+0	1.76E+0	1.52E+2	1.83E+0	5.32E+1	8.63E-1	-8.53E+1	1.22E+2
GWP-b	kg CO2 eq	-1.98E+1	2.54E-3	-2.06E-2	-1.98E+1	1.11E-3	1.39E+1	7.51E-4	-2.92E-1	-6.17E+0
GWP-luluc	kg CO2 eq	5.59E-2	2.02E-3	1.92E-3	5.98E-2	6.47E-4	1.03E-2	1.46E-5	-2.27E-2	4.81E-2
ODP	kg CFC11 eq	5.08E-6	1.22E-6	9.92E-8	6.40E-6	4.22E-7	1.35E-6	2.16E-8	-3.33E-6	4.86E-6
AP	mol H+ eq	5.47E-1	3.20E-2	1.93E-2	5.98E-1	1.04E-2	5.67E-2	5.16E-4	-2.47E-1	4.19E-1
EP-fw	kg P eq	2.38E-3	5.56E-5	1.09E-4	2.54E-3	1.51E-5	2.97E-4	6.72E-7	-1.00E-3	1.85E-3
EP-m	kg N eq	9.43E-2	1.13E-2	1.97E-3	1.07E-1	3.73E-3	1.65E-2	3.36E-4	-4.47E-2	8.33E-2
EP-T	mol N eq	1.08E+0	1.24E-1	2.36E-2	1.23E+0	4.11E-2	1.82E-1	2.09E-3	-4.98E-1	9.56E-1
POCP	kg NMVOC eq	4.73E-1	3.54E-2	7.90E-3	5.16E-1	1.17E-2	5.74E-2	7.86E-4	-2.26E-1	3.61E-1
ADP-mm	kg Sb eq	4.28E-3	1.40E-4	2.46E-4	4.67E-3	4.73E-5	2.24E-4	5.19E-7	-5.84E-4	4.35E-3
ADP-f	MJ	4.96E+3	8.31E+1	1.68E+1	5.06E+3	2.81E+1	1.79E+2	1.58E+0	-2.66E+3	2.61E+3
WDP	m3 depriv.	9.63E+1	2.97E-1	6.82E-1	9.72E+1	8.62E-2	3.50E+0	7.84E-3	-4.60E+1	5.48E+1
PM	disease inc.	5.35E-6	4.95E-7	1.15E-7	5.96E-6	1.65E-7	9.32E-7	1.09E-8	-2.21E-6	4.86E-6
IR	kBq U-235 eq	3.26E+0	3.48E-1	1.25E-2	3.62E+0	1.23E-1	5.42E-1	7.32E-3	-1.31E+0	2.99E+0
ETP-fw	CTUe	1.12E+3	7.41E+1	1.59E+2	1.36E+3	2.28E+1	2.02E+2	1.32E+0	-3.79E+2	1.20E+3
HTP-c	CTUh	5.13E-8	2.40E-9	8.17E-9	6.18E-8	8.11E-10	2.44E-8	3.85E-11	-1.89E-8	6.82E-8
HTP-nc	CTUh	1.15E-6	8.11E-8	2.05E-7	1.43E-6	2.72E-8	3.01E-7	8.50E-10	-4.35E-7	1.32E-6
SQP	Pt	2.01E+3	7.21E+1	2.87E+1	2.12E+3	2.40E+1	1.43E+2	4.05E+0	-1.05E+3	1.24E+3
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	4.81E+2	1.04E+0	3.11E+2	7.93E+2	4.03E-1	8.82E+0	6.12E-2	-1.79E+2	6.23E+2
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	4.81E+2	1.04E+0	3.11E+2	7.93E+2	4.03E-1	8.82E+0	6.12E-2	-1.79E+2	6.23E+2
PENRE	MJ	5.33E+3	8.82E+1	1.79E+1	5.43E+3	2.98E+1	1.91E+2	1.67E+0	-2.87E+3	2.78E+3
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	5.33E+3	8.82E+1	1.79E+1	5.43E+3	2.98E+1	1.91E+2	1.67E+0	-2.87E+3	2.78E+3
PET	MJ	5.81E+3	8.93E+1	3.29E+2	6.22E+3	3.02E+1	2.00E+2	1.74E+0	-3.05E+3	3.41E+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	1.50E+0	1.01E-2	1.89E-2	1.53E+0	3.18E-3	1.03E-1	1.95E-3	-6.97E-1	9.43E-1

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	1.01E-3	2.11E-4	3.56E-9	1.22E-3	7.18E-5	2.92E-4	1.90E-6	-6.86E-4	9.02E-4
NHWD	kg	9.38E+0	5.27E+0	1.40E-2	1.47E+1	1.74E+0	8.80E+0	6.96E+0	-2.57E+0	2.96E+1
RWD	kg	3.29E-3	5.46E-4	1.33E-9	3.84E-3	1.91E-4	6.87E-4	1.03E-5	-1.20E-3	3.52E-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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