Environmental Profile

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

Ecochain v4.0.3

Product:	3041560 - Tegra NG2 1000 PP Cross 45° 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	1.32E+2	5.47E+0	1.86E+0	1.39E+2	1.82E+0	6.68E+1	8.58E-1	-8.52E+1	1.23E+2
GWP-f	kg CO2 eq	1.51E+2	5.47E+0	1.88E+0	1.58E+2	1.82E+0	5.29E+1	8.58E-1	-8.49E+1	1.29E+2
GWP-b	kg CO2 eq	-1.93E+1	2.52E-3	-2.20E-2	-1.93E+1	1.10E-3	1.39E+1	7.47E-4	-2.90E-1	-5.74E+0
GWP-luluc	kg CO2 eq	5.70E-2	2.00E-3	2.05E-3	6.10E-2	6.44E-4	1.02E-2	1.46E-5	-2.27E-2	4.93E-2
ODP	kg CFC11 eq	5.28E-6	1.21E-6	1.06E-7	6.60E-6	4.19E-7	1.34E-6	2.15E-8	-3.31E-6	5.07E-6
AP	mol H+ eq	5.70E-1	3.17E-2	2.06E-2	6.23E-1	1.04E-2	5.64E-2	5.13E-4	-2.45E-1	4.45E-1
EP-fw	kg P eq	2.47E-3	5.51E-5	1.16E-4	2.64E-3	1.50E-5	2.96E-4	6.68E-7	-1.00E-3	1.95E-3
EP-m	kg N eq	9.81E-2	1.12E-2	2.11E-3	1.11E-1	3.71E-3	1.64E-2	3.34E-4	-4.45E-2	8.73E-2
EP-T	mol N eq	1.13E+0	1.23E-1	2.52E-2	1.27E+0	4.09E-2	1.81E-1	2.08E-3	-4.95E-1	1.00E+0
POCP	kg NMVOC eq	4.93E-1	3.52E-2	8.44E-3	5.36E-1	1.17E-2	5.71E-2	7.82E-4	-2.25E-1	3.81E-1
ADP-mm	kg Sb eq	4.48E-3	1.39E-4	2.63E-4	4.88E-3	4.71E-5	2.23E-4	5.17E-7	-5.81E-4	4.57E-3
ADP-f	MJ	5.19E+3	8.25E+1	1.80E+1	5.29E+3	2.79E+1	1.78E+2	1.57E+0	-2.65E+3	2.85E+3
WDP	m3 depriv.	1.00E+2	2.95E-1	7.28E-1	1.01E+2	8.57E-2	3.48E+0	7.80E-3	-4.58E+1	5.93E+1
PM	disease inc.	5.56E-6	4.91E-7	1.23E-7	6.17E-6	1.64E-7	9.27E-7	1.08E-8	-2.20E-6	5.08E-6
IR	kBq U-235 eq	3.39E+0	3.45E-1	1.33E-2	3.75E+0	1.22E-1	5.39E-1	7.28E-3	-1.30E+0	3.12E+0
ETP-fw	CTUe	1.16E+3	7.35E+1	1.69E+2	1.40E+3	2.27E+1	2.01E+2	1.31E+0	-3.77E+2	1.25E+3
HTP-c	CTUh	5.35E-8	2.38E-9	8.72E-9	6.46E-8	8.07E-10	2.43E-8	3.83E-11	-1.88E-8	7.09E-8
HTP-nc	CTUh	1.20E-6	8.04E-8	2.19E-7	1.50E-6	2.70E-8	2.99E-7	8.45E-10	-4.33E-7	1.40E-6
SQP	Pt	1.99E+3	7.15E+1	3.06E+1	2.10E+3	2.39E+1	1.42E+2	4.03E+0	-1.05E+3	1.22E+3
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	5.03E+2	1.03E+0	3.32E+2	8.36E+2	4.01E-1	8.77E+0	6.09E-2	-1.79E+2	6.66E+2
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	5.03E+2	1.03E+0	3.32E+2	8.36E+2	4.01E-1	8.77E+0	6.09E-2	-1.79E+2	6.66E+2
PENRE	MJ	5.57E+3	8.75E+1	1.91E+1	5.67E+3	2.97E+1	1.90E+2	1.67E+0	-2.86E+3	3.04E+3
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	5.57E+3	8.75E+1	1.91E+1	5.67E+3	2.97E+1	1.90E+2	1.67E+0	-2.86E+3	3.04E+3
PET	MJ	6.07E+3	8.86E+1	3.51E+2	6.51E+3	3.01E+1	1.99E+2	1.73E+0	-3.03E+3	3.70E+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	1.56E+0	1.00E-2	2.02E-2	1.59E+0	3.16E-3	1.03E-1	1.94E-3	-6.93E-1	1.01E+0

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	1.05E-3	2.09E-4	3.80E-9	1.26E-3	7.14E-5	2.90E-4	1.89E-6	-6.83E-4	9.44E-4
NHWD	kg	9.81E+0	5.23E+0	1.50E-2	1.51E+1	1.73E+0	8.75E+0	6.92E+0	-2.55E+0	2.99E+1
RWD	kg	3.42E-3	5.41E-4	1.42E-9	3.96E-3	1.90E-4	6.84E-4	1.03E-5	-1.20E-3	3.65E-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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