Environmental Profile

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

Ecochain v4.0.3

Product:	3023807 - Tegra 1000 PP Cone DN1000/600 H=640 NG
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	4.01E+1	2.18E+0	7.48E-1	4.30E+1	6.74E-1	3.36E+1	3.18E-1	-3.24E+1	4.52E+1
GWP-f	kg CO2 eq	5.38E+1	2.18E+0	7.56E-1	5.68E+1	6.74E-1	1.96E+1	3.18E-1	-3.23E+1	4.51E+1
GWP-b	kg CO2 eq	-1.37E+1	1.01E-3	-8.84E-3	-1.37E+1	4.09E-4	1.39E+1	2.76E-4	-1.06E-1	9.97E-2
GWP-luluc	kg CO2 eq	2.07E-2	7.99E-4	8.25E-4	2.23E-2	2.38E-4	3.82E-3	5.43E-6	-1.25E-2	1.39E-2
ODP	kg CFC11 eq	1.44E-6	4.81E-7	4.26E-8	1.96E-6	1.55E-7	5.07E-7	7.97E-9	-1.36E-6	1.28E-6
AP	mol H+ eq	1.99E-1	1.26E-2	8.28E-3	2.19E-1	3.84E-3	2.12E-2	1.90E-4	-9.76E-2	1.47E-1
EP-fw	kg P eq	8.57E-4	2.20E-5	4.69E-5	9.26E-4	5.55E-6	1.10E-4	2.49E-7	-4.21E-4	6.21E-4
EP-m	kg N eq	3.41E-2	4.46E-3	8.48E-4	3.94E-2	1.37E-3	6.22E-3	1.24E-4	-1.84E-2	2.87E-2
EP-T	mol N eq	3.92E-1	4.91E-2	1.01E-2	4.51E-1	1.51E-2	6.86E-2	7.72E-4	-2.06E-1	3.29E-1
POCP	kg NMVOC eq	1.76E-1	1.40E-2	3.40E-3	1.93E-1	4.33E-3	2.16E-2	2.90E-4	-9.13E-2	1.28E-1
ADP-mm	kg Sb eq	1.04E-3	5.53E-5	1.06E-4	1.20E-3	1.74E-5	8.36E-5	1.92E-7	-2.33E-4	1.07E-3
ADP-f	MJ	1.89E+3	3.29E+1	7.23E+0	1.93E+3	1.03E+1	6.68E+1	5.82E-1	-9.91E+2	1.01E+3
WDP	m3 depriv.	3.64E+1	1.18E-1	2.93E-1	3.68E+1	3.17E-2	1.29E+0	3.03E-3	-1.71E+1	2.11E+1
PM	disease inc.	1.97E-6	1.96E-7	4.95E-8	2.22E-6	6.08E-8	3.48E-7	4.00E-9	-9.62E-7	1.67E-6
IR	kBq U-235 eq	1.11E+0	1.38E-1	5.35E-3	1.25E+0	4.52E-2	2.03E-1	2.70E-3	-5.34E-1	9.66E-1
ETP-fw	CTUe	3.34E+2	2.93E+1	6.82E+1	4.32E+2	8.40E+0	7.50E+1	4.87E-1	-1.72E+2	3.43E+2
HTP-c	CTUh	1.96E-8	9.51E-10	3.51E-9	2.41E-8	2.99E-10	9.20E-9	1.43E-11	-1.01E-8	2.35E-8
HTP-nc	CTUh	3.88E-7	3.21E-8	8.80E-8	5.08E-7	1.00E-8	1.12E-7	3.14E-10	-1.85E-7	4.45E-7
SQP	Pt	1.25E+3	2.85E+1	1.23E+1	1.29E+3	8.85E+0	5.33E+1	1.49E+0	-1.01E+3	3.46E+2
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	1.95E+2	4.12E-1	1.34E+2	3.29E+2	1.48E-1	3.27E+0	2.25E-2	-1.59E+2	1.74E+2
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	1.95E+2	4.12E-1	1.34E+2	3.29E+2	1.48E-1	3.27E+0	2.25E-2	-1.59E+2	1.74E+2
PENRE	MJ	2.02E+3	3.49E+1	7.70E+0	2.07E+3	1.10E+1	7.11E+1	6.17E-1	-1.07E+3	1.08E+3
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	2.02E+3	3.49E+1	7.70E+0	2.07E+3	1.10E+1	7.11E+1	6.17E-1	-1.07E+3	1.08E+3
PET	MJ	2.22E+3	3.53E+1	1.41E+2	2.39E+3	1.11E+1	7.44E+1	6.40E-1	-1.23E+3	1.26E+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	5.54E-1	4.01E-3	8.12E-3	5.66E-1	1.17E-3	3.84E-2	7.17E-4	-2.64E-1	3.43E-1

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	3.64E-4	8.33E-5	1.53E-9	4.47E-4	2.65E-5	1.09E-4	7.02E-7	-2.99E-4	2.85E-4
NHWD	kg	3.01E+0	2.09E+0	6.03E-3	5.10E+0	6.41E-1	3.28E+0	2.56E+0	-1.28E+0	1.03E+1
RWD	kg	1.05E-3	2.16E-4	5.70E-10	1.27E-3	7.03E-5	2.58E-4	3.80E-6	-5.06E-4	1.09E-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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