

Environmental Profile

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

Ecochain v4.0.3



Product: 3041543 - Tegra NG2 1000 PP Cross 90° 160 SW
 Unit: 1 piece
 Manufacturer: Wavin

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



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.

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

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Results

Environmental impact	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
GWP-total	kg CO2 eq	1.09E+2	4.12E+0	1.59E+0	1.14E+2	1.50E+0	5.76E+1	7.08E-1	-7.04E+1	1.04E+2
GWP-f	kg CO2 eq	1.25E+2	4.11E+0	1.61E+0	1.31E+2	1.50E+0	4.37E+1	7.08E-1	-7.02E+1	1.06E+2
GWP-b	kg CO2 eq	-1.61E+1	1.90E-3	-1.88E-2	-1.62E+1	9.12E-4	1.39E+1	6.16E-4	-2.39E-1	-2.49E+0
GWP-luluc	kg CO2 eq	4.43E-2	1.51E-3	1.76E-3	4.75E-2	5.32E-4	8.47E-3	1.20E-5	-1.98E-2	3.67E-2
ODP	kg CFC11 eq	3.93E-6	9.08E-7	9.09E-8	4.93E-6	3.46E-7	1.11E-6	1.78E-8	-2.76E-6	3.64E-6
AP	mol H+ eq	4.66E-1	2.39E-2	1.76E-2	5.07E-1	8.55E-3	4.66E-2	4.23E-4	-2.04E-1	3.59E-1
EP-fw	kg P eq	1.99E-3	4.15E-5	9.99E-5	2.13E-3	1.24E-5	2.44E-4	5.52E-7	-8.38E-4	1.55E-3
EP-m	kg N eq	7.98E-2	8.41E-3	1.81E-3	9.00E-2	3.06E-3	1.36E-2	2.76E-4	-3.72E-2	6.97E-2
EP-T	mol N eq	9.16E-1	9.27E-2	2.16E-2	1.03E+0	3.37E-2	1.50E-1	1.72E-3	-4.14E-1	8.01E-1
POCP	kg NMVOC eq	4.05E-1	2.65E-2	7.24E-3	4.38E-1	9.64E-3	4.73E-2	6.45E-4	-1.87E-1	3.09E-1
ADP-mm	kg Sb eq	3.16E-3	1.04E-4	2.25E-4	3.49E-3	3.89E-5	1.84E-4	4.27E-7	-4.83E-4	3.23E-3
ADP-f	MJ	4.33E+3	6.21E+1	1.54E+1	4.41E+3	2.31E+1	1.47E+2	1.30E+0	-2.19E+3	2.40E+3
WDP	m3 depriv.	8.38E+1	2.22E-1	6.24E-1	8.47E+1	7.07E-2	2.88E+0	6.53E-3	-3.77E+1	4.99E+1
PM	disease inc.	4.51E-6	3.69E-7	1.06E-7	4.98E-6	1.36E-7	7.66E-7	8.91E-9	-1.85E-6	4.04E-6
IR	kBq U-235 eq	2.69E+0	2.60E-1	1.14E-2	2.96E+0	1.01E-1	4.46E-1	6.01E-3	-1.09E+0	2.43E+0
ETP-fw	CTUe	8.73E+2	5.53E+1	1.45E+2	1.07E+3	1.87E+1	1.66E+2	1.08E+0	-3.20E+2	9.39E+2
HTP-c	CTUh	4.26E-8	1.79E-9	7.48E-9	5.19E-8	6.66E-10	2.01E-8	3.17E-11	-1.64E-8	5.63E-8
HTP-nc	CTUh	9.55E-7	6.05E-8	1.88E-7	1.20E-6	2.23E-8	2.47E-7	6.98E-10	-3.64E-7	1.11E-6
SQP	Pt	1.63E+3	5.38E+1	2.63E+1	1.71E+3	1.97E+1	1.18E+2	3.33E+0	-1.04E+3	8.17E+2
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	3.75E+2	7.77E-1	2.84E+2	6.60E+2	3.31E-1	7.25E+0	5.02E-2	-1.73E+2	4.95E+2
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	3.75E+2	7.77E-1	2.84E+2	6.60E+2	3.31E-1	7.25E+0	5.02E-2	-1.73E+2	4.95E+2
PENRE	MJ	4.65E+3	6.59E+1	1.64E+1	4.73E+3	2.45E+1	1.57E+2	1.38E+0	-2.36E+3	2.56E+3
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	4.65E+3	6.59E+1	1.64E+1	4.73E+3	2.45E+1	1.57E+2	1.38E+0	-2.36E+3	2.56E+3
PET	MJ	5.02E+3	6.67E+1	3.01E+2	5.39E+3	2.48E+1	1.64E+2	1.43E+0	-2.53E+3	3.05E+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	1.29E+0	7.56E-3	1.73E-2	1.31E+0	2.61E-3	8.49E-2	1.60E-3	-5.73E-1	8.29E-1

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	8.28E-4	1.57E-4	3.26E-9	9.85E-4	5.90E-5	2.40E-4	1.56E-6	-5.76E-4	7.10E-4
NHWD	kg	7.68E+0	3.94E+0	1.28E-2	1.16E+1	1.43E+0	7.24E+0	5.71E+0	-2.20E+0	2.38E+1
RWD	kg	2.66E-3	4.07E-4	1.21E-9	3.07E-3	1.57E-4	5.66E-4	8.46E-6	-1.01E-3	2.79E-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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