

Environmental Profile

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

Ecochain v3.5.64



Product: 3003623 - PE Toilet Floor bend Long BK 90x120 PN4

Unit: 1 piece

Manufacturer: Wavin - IT - SM Maddalena

LCA standard: EN15804+A2 (2019)

Standard database: Worldwide - Ecoinvent v 3.6 Cut-Off

Externally verified: Yes

Issue date: 24-11-2022

End of validity: 24-11-2027

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 - IT - SM Maddalena (2020). (☑ = 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

Use stage

End-of-Life stage

A1 Raw material supply A2 Transport A3 Manufacturing

B1 Use B2 Maintenance B3 Repair B4 Replacement B5 Refurbishment
B6 Operational energy use B7 Operational water use

C1 De-construction demolition C2 Transport C3 Waste processing
C4 Disposal

Construction process stage

Benefits and loads beyond the system boundaries

A4 Transport gate to site

A5 Assembly / Construction installation process

D Reuse- Recovery- Recycling- potential

Environmental impacts and parameters

GWP-total = EF Climate Change [kg CO2 eq]; **GWP-f** = EF Climate change - Fossil [kg CO2 eq]; **GWP-b** = EF Climate Change - Biogenic [kg CO2 eq]; **GWP-luluc** = EF 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]

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Results

Environmental impact	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
GWP-total	kg CO2 eq	1.01E+0	1.14E-1	6.63E-2	1.19E+0	1.16E-2	6.58E-1	6.45E-3	-6.37E-1	1.23E+0
GWP-f	kg CO2 eq	1.14E+0	1.14E-1	5.68E-2	1.31E+0	1.16E-2	4.94E-1	6.45E-3	-7.08E-1	1.11E+0
GWP-b	kg CO2 eq	-1.29E-1	6.48E-5	4.79E-3	-1.24E-1	7.06E-6	1.64E-1	4.84E-6	7.14E-2	1.11E-1
GWP-luluc	kg CO2 eq	8.88E-4	4.19E-5	4.79E-3	5.72E-3	4.12E-6	6.85E-5	9.25E-8	-7.11E-4	5.08E-3
ODP	kg CFC11 eq	6.76E-8	2.62E-8	5.70E-9	9.95E-8	2.68E-9	9.94E-9	1.38E-10	-4.23E-8	6.99E-8
AP	mol H+ eq	4.57E-3	8.00E-4	2.29E-4	5.60E-3	6.63E-5	4.16E-4	3.28E-6	-2.13E-3	3.95E-3
EP-fw	kg P eq	2.59E-5	9.16E-7	8.82E-7	2.77E-5	9.57E-8	2.00E-6	4.26E-9	-1.46E-5	1.53E-5
EP-m	kg N eq	8.49E-4	2.67E-4	3.87E-5	1.15E-3	2.37E-5	1.27E-4	2.32E-6	-4.23E-4	8.83E-4
EP-T	mol N eq	9.36E-3	2.94E-3	4.35E-4	1.27E-2	2.61E-4	1.39E-3	1.33E-5	-4.77E-3	9.64E-3
POCP	kg NMVOC eq	3.99E-3	8.27E-4	1.35E-4	4.95E-3	7.47E-5	4.34E-4	5.22E-6	-1.96E-3	3.51E-3
ADP-mm	kg Sb eq	1.46E-5	2.85E-6	1.38E-6	1.89E-5	3.01E-7	1.61E-6	3.29E-9	-4.59E-6	1.62E-5
ADP-f	MJ	3.69E+1	1.74E+0	7.47E-1	3.93E+1	1.79E-1	1.23E+0	1.00E-2	-1.96E+1	2.11E+1
WDP	m3 depriv.	7.88E-1	5.22E-3	2.64E-1	1.06E+0	5.48E-4	2.32E-2	4.60E-5	-4.55E-1	6.26E-1
PM	disease inc.	4.60E-8	9.99E-9	2.29E-9	5.83E-8	1.05E-9	6.67E-9	6.90E-11	-2.23E-8	4.38E-8
IR	kBq U-235 eq	3.71E-2	7.60E-3	6.97E-4	4.54E-2	7.81E-4	3.84E-3	4.68E-5	-1.63E-2	3.37E-2
ETP-fw	CTUe	1.77E+1	1.40E+0	1.18E+0	2.03E+1	1.45E-1	1.47E+0	8.85E-3	-8.71E+0	1.32E+1
HTP-c	CTUh	3.94E-10	5.11E-11	6.28E-11	5.08E-10	5.16E-12	1.79E-10	2.44E-13	-2.16E-10	4.76E-10
HTP-nc	CTUh	8.56E-9	1.65E-9	1.30E-9	1.15E-8	1.73E-10	2.18E-9	5.63E-12	-4.63E-9	9.25E-9
SQP	Pt	1.60E+1	1.44E+0	1.36E-1	1.76E+1	1.53E-1	9.69E-1	2.58E-2	-2.31E+1	-4.36E+0
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	2.90E+0	2.44E-2	2.58E+0	5.51E+0	2.56E-3	5.91E-2	3.97E-4	-4.04E+0	1.53E+0
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	2.90E+0	2.44E-2	2.58E+0	5.51E+0	2.56E-3	5.91E-2	3.97E-4	-4.04E+0	1.53E+0
PENRE	MJ	3.95E+1	1.85E+0	8.15E-1	4.22E+1	1.90E-1	1.31E+0	1.07E-2	-2.12E+1	2.25E+1
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	3.95E+1	1.85E+0	8.15E-1	4.22E+1	1.90E-1	1.31E+0	1.07E-2	-2.12E+1	2.25E+1
PET	MJ	4.24E+1	1.87E+0	3.40E+0	4.77E+1	1.92E-1	1.37E+0	1.11E-2	-2.52E+1	2.40E+1
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	1.33E-2	1.92E-4	6.28E-3	1.98E-2	2.02E-5	7.12E-4	1.24E-5	-8.19E-3	1.23E-2

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	9.65E-6	4.33E-6	7.26E-7	1.47E-5	4.57E-7	2.11E-6	1.21E-8	-8.12E-6	9.17E-6
NHWD	kg	6.59E-2	1.04E-1	7.08E-3	1.77E-1	1.11E-2	6.48E-2	4.42E-2	-2.57E-2	2.71E-1
RWD	kg	3.91E-5	1.18E-5	7.75E-7	5.17E-5	1.21E-6	4.93E-6	6.57E-8	-1.56E-5	4.23E-5
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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