

Environmental Profile

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

Ecochain v3.5.64



Product: 3007551 - PE-100 POTW PP BK/BL 400X36,3 SDR11 L=12
 Unit: 1 piece
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LCA standard: EN15804+A2 (2019)
 Standard database: Worldwide - Ecoinvent v 3.6 Cut-Off
 Externally verified: Yes
 Issue date: 11-08-2022
 End of validity: 11-08-2027
 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 - DE - Westeregeln - verified (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	☑	☑	☑	☑									

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 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	1.00E+3	2.39E+1	2.18E+1	1.05E+3	1.32E+1	4.29E+2	7.30E+0	-6.61E+2	8.39E+2
GWP-f	kg CO2 eq	1.00E+3	2.39E+1	1.78E+1	1.04E+3	1.32E+1	4.29E+2	7.30E+0	-6.58E+2	8.33E+2
GWP-b	kg CO2 eq	4.88E+0	1.10E-2	1.90E+0	6.80E+0	8.00E-3	-5.07E-1	5.48E-3	-2.50E+0	3.81E+0
GWP-luluc	kg CO2 eq	2.99E-1	8.76E-3	2.15E+0	2.46E+0	4.66E-3	7.40E-2	1.05E-4	-1.50E-1	2.39E+0
ODP	kg CFC11 eq	5.47E-5	5.28E-6	2.27E-6	6.22E-5	3.04E-6	9.63E-6	1.56E-7	-3.16E-5	4.34E-5
AP	mol H+ eq	3.73E+0	1.39E-1	1.06E-1	3.98E+0	7.50E-2	4.05E-1	3.71E-3	-1.82E+0	2.64E+0
EP-fw	kg P eq	1.65E-2	2.41E-4	4.06E-4	1.71E-2	1.08E-4	2.13E-3	4.82E-6	-8.20E-3	1.12E-2
EP-m	kg N eq	6.24E-1	4.89E-2	2.13E-2	6.94E-1	2.68E-2	1.18E-1	2.63E-3	-3.33E-1	5.08E-1
EP-T	mol N eq	6.95E+0	5.39E-1	2.16E-1	7.71E+0	2.96E-1	1.30E+0	1.51E-2	-3.71E+0	5.61E+0
POCP	kg NMVOC eq	3.33E+0	1.54E-1	6.23E-2	3.55E+0	8.46E-2	4.10E-1	5.91E-3	-1.73E+0	2.32E+0
ADP-mm	kg Sb eq	9.03E-3	6.06E-4	5.45E-4	1.02E-2	3.41E-4	1.60E-3	3.73E-6	-4.26E-3	7.87E-3
ADP-f	MJ	3.56E+4	3.61E+2	2.07E+2	3.61E+4	2.02E+2	1.28E+3	1.14E+1	-1.97E+4	1.79E+4
WDP	m3 depriv.	7.66E+2	1.29E+0	1.24E+2	8.92E+2	6.21E-1	2.52E+1	5.21E-2	-3.84E+2	5.34E+2
PM	disease inc.	3.55E-5	2.15E-6	9.28E-7	3.86E-5	1.19E-6	6.66E-6	7.81E-8	-1.44E-5	3.21E-5
IR	kBq U-235 eq	3.06E+1	1.51E+0	5.40E-1	3.27E+1	8.84E-1	3.87E+0	5.30E-2	-1.19E+1	2.56E+1
ETP-fw	CTUe	6.40E+3	3.21E+2	5.24E+2	7.24E+3	1.64E+2	1.46E+3	1.00E+1	-2.87E+3	6.00E+3
HTP-c	CTUh	2.62E-7	1.04E-8	1.95E-8	2.92E-7	5.84E-9	1.73E-7	2.76E-10	-1.36E-7	3.34E-7
HTP-nc	CTUh	6.21E-6	3.52E-7	5.07E-7	7.07E-6	1.96E-7	2.19E-6	6.37E-9	-3.05E-6	6.41E-6
SQP	Pt	1.35E+3	3.13E+2	1.92E+1	1.68E+3	1.73E+2	1.03E+3	2.92E+1	-6.27E+2	2.28E+3
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	5.73E+2	4.51E+0	1.16E+3	1.74E+3	2.90E+0	6.33E+1	4.50E-1	-2.86E+2	1.52E+3
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	5.73E+2	4.51E+0	1.16E+3	1.74E+3	2.90E+0	6.33E+1	4.50E-1	-2.86E+2	1.52E+3
PENRE	MJ	3.81E+4	3.83E+2	2.22E+2	3.87E+4	2.15E+2	1.37E+3	1.21E+1	-2.13E+4	1.90E+4
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	3.81E+4	3.83E+2	2.22E+2	3.87E+4	2.15E+2	1.37E+3	1.21E+1	-2.13E+4	1.90E+4
PET	MJ	3.87E+4	3.87E+2	1.38E+3	4.05E+4	2.18E+2	1.43E+3	1.25E+1	-2.16E+4	2.05E+4
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	1.16E+1	4.39E-2	2.94E+0	1.46E+1	2.29E-2	7.42E-1	1.41E-2	-5.86E+0	9.50E+0

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	4.72E-3	9.14E-4	3.21E-4	5.96E-3	5.17E-4	2.09E-3	1.36E-5	-5.80E-3	2.78E-3
NHWD	kg	3.22E+1	2.29E+1	4.07E-1	5.55E+1	1.25E+1	6.31E+1	5.01E+1	-1.61E+1	1.65E+2
RWD	kg	3.34E-2	2.37E-3	7.68E-4	3.65E-2	1.38E-3	4.90E-3	7.43E-5	-1.11E-2	3.18E-2
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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