

Environmental Profile

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

Ecochain v3.5.64



Product: 3011384 - Tegra 400 PP Bend 120° DN200 SW
 Unit: 1 Piece
 Manufacturer: Wavin Poland Buk
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 Poland
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LCA standard: EN15804+A2 (2019)
 Standard database: Worldwide - Ecoinvent v 3.6 Cut-Off
 Externally verified: Yes
 Issue date: 19-09-2022
 End of validity: 19-09-2027
 Verifier: Martijn van Hövell - SGS Search



This LCA was evaluated according to EN15804+A2. It was concluded that the LCA complies with this standard.

Plastic inspection chamber made of polypropylene according to DIN EN 13598-2.

The LCA background information and project dossier have been registered in the online Ecochain application in the account Wavin Poland Buk (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

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 non-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	8.93E+0	5.77E-1	9.62E-1	1.05E+1	2.77E-1	2.62E+1	1.33E-1	-1.54E+1	2.17E+1
GWP-f	kg CO2 eq	2.54E+1	5.77E-1	9.23E-1	2.69E+1	2.76E-1	9.71E+0	1.33E-1	-1.53E+1	2.17E+1
GWP-b	kg CO2 eq	-1.65E+1	2.66E-4	3.89E-2	-1.64E+1	1.68E-4	1.65E+1	1.17E-4	-4.35E-2	5.64E-2
GWP-luluc	kg CO2 eq	1.60E-2	2.11E-4	4.54E-4	1.66E-2	9.78E-5	1.55E-3	2.30E-6	-1.04E-2	7.88E-3
ODP	kg CFC11 eq	1.16E-6	1.27E-7	1.04E-7	1.39E-6	6.37E-8	2.10E-7	3.36E-9	-9.05E-7	7.66E-7
AP	mol H+ eq	1.03E-1	3.34E-3	4.82E-3	1.11E-1	1.57E-3	8.99E-3	8.04E-5	-5.05E-2	7.10E-2
EP-fw	kg P eq	4.99E-4	5.82E-6	2.48E-5	5.30E-4	2.27E-6	4.51E-5	1.05E-7	-2.49E-4	3.29E-4
EP-m	kg N eq	1.85E-2	1.18E-3	6.39E-4	2.04E-2	5.63E-4	2.69E-3	5.80E-5	-1.04E-2	1.33E-2
EP-T	mol N eq	2.10E-1	1.30E-2	7.22E-3	2.30E-1	6.21E-3	2.96E-2	3.26E-4	-1.18E-1	1.49E-1
POCP	kg NMVOC eq	9.24E-2	3.71E-3	2.43E-3	9.86E-2	1.77E-3	9.20E-3	1.22E-4	-4.93E-2	6.04E-2
ADP-mm	kg Sb eq	1.02E-3	1.46E-5	5.36E-5	1.09E-3	7.15E-6	3.40E-5	8.11E-8	-1.44E-4	9.84E-4
ADP-f	MJ	8.31E+2	8.70E+0	1.10E+1	8.50E+2	4.24E+0	2.72E+1	2.46E-1	-4.42E+2	4.40E+2
WDP	m3 depriv.	1.65E+1	3.11E-2	1.58E-1	1.67E+1	1.30E-2	5.40E-1	1.30E-3	-7.63E+0	9.61E+0
PM	disease inc.	1.13E-6	5.18E-8	3.32E-8	1.21E-6	2.49E-8	1.43E-7	1.69E-9	-5.93E-7	7.89E-7
IR	kBq U-235 eq	6.61E-1	3.64E-2	1.58E-2	7.14E-1	1.85E-2	8.34E-2	1.14E-3	-3.03E-1	5.13E-1
ETP-fw	CTUe	2.30E+2	7.76E+0	3.54E+1	2.74E+2	3.44E+0	3.30E+1	2.23E-1	-1.16E+2	1.94E+2
HTP-c	CTUh	1.42E-8	2.52E-10	1.78E-9	1.62E-8	1.23E-10	3.89E-9	6.08E-12	-8.15E-9	1.21E-8
HTP-nc	CTUh	2.32E-7	8.48E-9	4.40E-8	2.85E-7	4.11E-9	4.68E-8	1.37E-10	-1.11E-7	2.25E-7
SQP	Pt	1.42E+3	7.55E+0	6.75E+0	1.44E+3	3.63E+0	2.16E+1	6.30E-1	-1.17E+3	2.90E+2
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	2.42E+2	1.09E-1	6.45E+1	3.07E+2	6.09E-2	1.34E+0	9.58E-3	-1.79E+2	1.30E+2
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	2.42E+2	1.09E-1	6.45E+1	3.07E+2	6.09E-2	1.34E+0	9.58E-3	-1.79E+2	1.30E+2
PENRE	MJ	8.91E+2	9.23E+0	1.19E+1	9.12E+2	4.50E+0	2.90E+1	2.61E-1	-4.76E+2	4.70E+2
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	8.91E+2	9.23E+0	1.19E+1	9.12E+2	4.50E+0	2.90E+1	2.61E-1	-4.76E+2	4.70E+2
PET	MJ	1.13E+3	9.34E+0	7.64E+1	1.22E+3	4.56E+0	3.03E+1	2.70E-1	-6.55E+2	5.99E+2
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	2.75E-1	1.06E-3	4.47E-3	2.80E-1	4.80E-4	1.78E-2	3.03E-4	-1.23E-1	1.76E-1

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	2.32E-4	2.20E-5	1.12E-5	2.65E-4	1.08E-5	4.57E-5	2.96E-7	-1.99E-4	1.23E-4
NHWD	kg	1.80E+0	5.52E-1	3.04E-2	2.38E+0	2.63E-1	1.37E+0	1.08E+0	-9.64E-1	4.14E+0
RWD	kg	6.86E-4	5.71E-5	2.06E-5	7.64E-4	2.88E-5	1.06E-4	1.60E-6	-3.07E-4	5.94E-4
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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