

# Environmental Profile

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

Ecochain v3.5.64



Product: 3011400 - Tegra 400 PP Cross 90° DN200 SW  
 Unit: 1 Piece  
 Manufacturer: Wavin Poland Buk  
 Address: Dobieżyńska 43  
 64-320 Buk  
 Poland  
 Contact: <https://www.wavin.com/en-en>

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	☑	☑	☑	☑
<b>Product stage</b>					<b>Use stage</b>							<b>End-of-Life stage</b>				
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				
<b>Construction process stage</b>					<b>Benefits and loads beyond the system boundaries</b>											
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]

## 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	1.46E+1	7.15E-1	1.12E+0	1.64E+1	3.41E-1	2.88E+1	1.65E-1	-1.86E+1	2.71E+1
GWP-f	kg CO2 eq	3.11E+1	7.14E-1	1.07E+0	3.28E+1	3.41E-1	1.23E+1	1.65E-1	-1.85E+1	2.71E+1
GWP-b	kg CO2 eq	-1.65E+1	3.30E-4	4.92E-2	-1.64E+1	2.07E-4	1.65E+1	1.45E-4	-5.34E-2	6.73E-2
GWP-luluc	kg CO2 eq	1.79E-2	2.62E-4	4.83E-4	1.87E-2	1.21E-4	1.90E-3	2.85E-6	-1.10E-2	9.69E-3
ODP	kg CFC11 eq	1.43E-6	1.58E-7	1.24E-7	1.71E-6	7.85E-8	2.56E-7	4.16E-9	-1.07E-6	9.79E-7
AP	mol H+ eq	1.25E-1	4.14E-3	5.20E-3	1.34E-1	1.94E-3	1.10E-2	9.95E-5	-5.88E-2	8.84E-2
EP-fw	kg P eq	6.00E-4	7.21E-6	2.65E-5	6.34E-4	2.80E-6	5.52E-5	1.30E-7	-2.82E-4	4.10E-4
EP-m	kg N eq	2.21E-2	1.46E-3	7.12E-4	2.43E-2	6.94E-4	3.28E-3	7.26E-5	-1.19E-2	1.65E-2
EP-T	mol N eq	2.51E-1	1.61E-2	7.98E-3	2.75E-1	7.65E-3	3.62E-2	4.03E-4	-1.34E-1	1.85E-1
POCP	kg NMVOC eq	1.11E-1	4.60E-3	2.68E-3	1.18E-1	2.19E-3	1.12E-2	1.51E-4	-5.68E-2	7.49E-2
ADP-mm	kg Sb eq	1.35E-3	1.81E-5	5.60E-5	1.42E-3	8.81E-6	4.16E-5	1.00E-7	-1.72E-4	1.30E-3
ADP-f	MJ	1.02E+3	1.08E+1	1.29E+1	1.04E+3	5.23E+0	3.33E+1	3.04E-1	-5.37E+2	5.47E+2
WDP	m3 depriv.	2.03E+1	3.85E-2	1.68E-1	2.06E+1	1.60E-2	6.65E-1	1.60E-3	-9.24E+0	1.20E+1
PM	disease inc.	1.33E-6	6.42E-8	3.64E-8	1.43E-6	3.07E-8	1.74E-7	2.09E-9	-6.62E-7	9.77E-7
IR	kBq U-235 eq	8.09E-1	4.51E-2	1.91E-2	8.73E-1	2.29E-2	1.02E-1	1.41E-3	-3.50E-1	6.49E-1
ETP-fw	CTUe	2.80E+2	9.61E+0	3.75E+1	3.27E+2	4.25E+0	4.09E+1	2.79E-1	-1.29E+2	2.44E+2
HTP-c	CTUh	1.59E-8	3.12E-10	1.89E-9	1.81E-8	1.51E-10	4.74E-9	7.52E-12	-8.67E-9	1.43E-8
HTP-nc	CTUh	2.83E-7	1.05E-8	4.62E-8	3.39E-7	5.06E-9	5.75E-8	1.70E-10	-1.26E-7	2.76E-7
SQP	Pt	1.43E+3	9.35E+0	7.18E+0	1.45E+3	4.47E+0	2.64E+1	7.78E-1	-1.17E+3	3.07E+2
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	2.62E+2	1.35E-1	6.72E+1	3.30E+2	7.50E-2	1.64E+0	1.19E-2	-1.80E+2	1.51E+2
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	2.62E+2	1.35E-1	6.72E+1	3.30E+2	7.50E-2	1.64E+0	1.19E-2	-1.80E+2	1.51E+2
PENRE	MJ	1.10E+3	1.14E+1	1.40E+1	1.12E+3	5.55E+0	3.55E+1	3.22E-1	-5.79E+2	5.83E+2
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	1.10E+3	1.14E+1	1.40E+1	1.12E+3	5.55E+0	3.55E+1	3.22E-1	-5.79E+2	5.83E+2
PET	MJ	1.36E+3	1.16E+1	8.12E+1	1.45E+3	5.63E+0	3.72E+1	3.34E-1	-7.59E+2	7.35E+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	3.39E-1	1.31E-3	4.77E-3	3.45E-1	5.92E-4	2.21E-2	3.74E-4	-1.47E-1	2.20E-1

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	2.66E-4	2.73E-5	1.39E-5	3.07E-4	1.34E-5	5.61E-5	3.66E-7	-2.27E-4	1.50E-4
NHWD	kg	2.05E+0	6.83E-1	3.73E-2	2.77E+0	3.24E-1	1.69E+0	1.34E+0	-1.04E+0	5.08E+0
RWD	kg	8.41E-4	7.07E-5	2.56E-5	9.38E-4	3.56E-5	1.29E-4	1.98E-6	-3.50E-4	7.55E-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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