

Environmental Profile

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

Ecochain v3.5.64



Product: 3069953 - Tegra 600 PP Straight DN250 SW DK
 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 | ☑ | ☑ | ☑ | ☑ |

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 | 3.62E+1 | 1.42E+0 | 1.83E+0 | 3.95E+1 | 7.03E-1 | 5.36E+1 | 3.43E-1 | -3.60E+1 | 5.81E+1 |
| GWP-f | kg CO2 eq | 6.32E+1 | 1.42E+0 | 1.74E+0 | 6.63E+1 | 7.03E-1 | 2.65E+1 | 3.43E-1 | -3.59E+1 | 5.80E+1 |
| GWP-b | kg CO2 eq | -2.70E+1 | 6.56E-4 | 9.79E-2 | -2.69E+1 | 4.27E-4 | 2.71E+1 | 3.02E-4 | -1.08E-1 | 7.81E-2 |
| GWP-luluc | kg CO2 eq | 3.48E-2 | 5.21E-4 | 6.04E-4 | 3.59E-2 | 2.49E-4 | 3.88E-3 | 5.95E-6 | -1.48E-2 | 2.53E-2 |
| ODP | kg CFC11 eq | 3.19E-6 | 3.14E-7 | 2.21E-7 | 3.72E-6 | 1.62E-7 | 5.32E-7 | 8.68E-9 | -1.97E-6 | 2.45E-6 |
| AP | mol H+ eq | 2.56E-1 | 8.24E-3 | 6.77E-3 | 2.71E-1 | 4.00E-3 | 2.34E-2 | 2.08E-4 | -1.09E-1 | 1.90E-1 |
| EP-fw | kg P eq | 1.22E-3 | 1.43E-5 | 3.29E-5 | 1.27E-3 | 5.78E-6 | 1.13E-4 | 2.72E-7 | -4.70E-4 | 9.17E-4 |
| EP-m | kg N eq | 4.51E-2 | 2.90E-3 | 1.03E-3 | 4.91E-2 | 1.43E-3 | 7.12E-3 | 1.58E-4 | -2.13E-2 | 3.65E-2 |
| EP-T | mol N eq | 5.17E-1 | 3.20E-2 | 1.13E-2 | 5.60E-1 | 1.58E-2 | 7.86E-2 | 8.42E-4 | -2.47E-1 | 4.08E-1 |
| POCP | kg NMVOC eq | 2.22E-1 | 9.14E-3 | 3.79E-3 | 2.35E-1 | 4.51E-3 | 2.42E-2 | 3.15E-4 | -1.01E-1 | 1.64E-1 |
| ADP-mm | kg Sb eq | 3.40E-3 | 3.60E-5 | 6.48E-5 | 3.50E-3 | 1.82E-5 | 8.55E-5 | 2.09E-7 | -3.32E-4 | 3.28E-3 |
| ADP-f | MJ | 2.09E+3 | 2.14E+1 | 2.19E+1 | 2.14E+3 | 1.08E+1 | 6.85E+1 | 6.34E-1 | -1.06E+3 | 1.16E+3 |
| WDP | m3 depriv. | 4.23E+1 | 7.67E-2 | 2.10E-1 | 4.26E+1 | 3.31E-2 | 1.38E+0 | 3.30E-3 | -1.82E+1 | 2.59E+1 |
| PM | disease inc. | 3.09E-6 | 1.28E-7 | 5.02E-8 | 3.27E-6 | 6.34E-8 | 3.64E-7 | 4.36E-9 | -1.10E-6 | 2.60E-6 |
| IR | kBq U-235 eq | 1.79E+0 | 8.98E-2 | 3.45E-2 | 1.91E+0 | 4.71E-2 | 2.09E-1 | 2.95E-3 | -6.05E-1 | 1.57E+0 |
| ETP-fw | CTUe | 5.69E+2 | 1.91E+1 | 4.58E+1 | 6.34E+2 | 8.76E+0 | 8.68E+1 | 6.01E-1 | -2.41E+2 | 4.89E+2 |
| HTP-c | CTUh | 2.79E-8 | 6.20E-10 | 2.28E-9 | 3.08E-8 | 3.12E-10 | 1.03E-8 | 1.57E-11 | -1.13E-8 | 3.01E-8 |
| HTP-nc | CTUh | 5.51E-7 | 2.09E-8 | 5.48E-8 | 6.27E-7 | 1.04E-8 | 1.20E-7 | 3.59E-10 | -2.23E-7 | 5.36E-7 |
| SQP | Pt | 2.47E+3 | 1.86E+1 | 8.92E+0 | 2.50E+3 | 9.23E+0 | 5.43E+1 | 1.62E+0 | -1.23E+3 | 1.33E+3 |
| Resource use | Unit | A1 | A2 | A3 | A1-A3 | C2 | C3 | C4 | D | Total |
| PERE | MJ | 4.30E+2 | 2.68E-1 | 7.68E+1 | 5.07E+2 | 1.55E-1 | 3.35E+0 | 2.49E-2 | -2.07E+2 | 3.04E+2 |
| PERM | MJ | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PERT | MJ | 4.30E+2 | 2.68E-1 | 7.68E+1 | 5.07E+2 | 1.55E-1 | 3.35E+0 | 2.49E-2 | -2.07E+2 | 3.04E+2 |
| PENRE | MJ | 2.25E+3 | 2.28E+1 | 2.38E+1 | 2.29E+3 | 1.15E+1 | 7.30E+1 | 6.73E-1 | -1.14E+3 | 1.23E+3 |
| PENRM | MJ | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PENRT | MJ | 2.25E+3 | 2.28E+1 | 2.38E+1 | 2.29E+3 | 1.15E+1 | 7.30E+1 | 6.73E-1 | -1.14E+3 | 1.23E+3 |
| PET | MJ | 2.68E+3 | 2.30E+1 | 1.01E+2 | 2.80E+3 | 1.16E+1 | 7.64E+1 | 6.97E-1 | -1.35E+3 | 1.54E+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 | 7.13E-1 | 2.61E-3 | 6.00E-3 | 7.22E-1 | 1.22E-3 | 4.84E-2 | 7.82E-4 | -2.81E-1 | 4.91E-1 |

| Output flows and waste categories | Unit | A1 | A2 | A3 | A1-A3 | C2 | C3 | C4 | D | Total |
|-----------------------------------|------|---------|---------|---------|---------|---------|---------|---------|----------|---------|
| HWD | kg | 5.26E-4 | 5.43E-5 | 2.67E-5 | 6.07E-4 | 2.76E-5 | 1.17E-4 | 7.64E-7 | -3.73E-4 | 3.80E-4 |
| NHWD | kg | 3.95E+0 | 1.36E+0 | 6.94E-2 | 5.38E+0 | 6.68E-1 | 3.70E+0 | 2.79E+0 | -1.44E+0 | 1.11E+1 |
| RWD | kg | 1.90E-3 | 1.41E-4 | 4.92E-5 | 2.09E-3 | 7.33E-5 | 2.65E-4 | 4.14E-6 | -5.88E-4 | 1.84E-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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