

# Environmental Profile

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

Ecochain v3.5.64



Product: 3078835 - Tegra 600 PP Cross 45° DN160 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	☑	☑	☑	☑
<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	3.22E+1	1.31E+0	1.35E+0	3.48E+1	6.52E-1	5.20E+1	3.19E-1	-3.36E+1	5.42E+1
GWP-f	kg CO2 eq	5.91E+1	1.30E+0	1.27E+0	6.17E+1	6.52E-1	2.49E+1	3.19E-1	-3.35E+1	5.41E+1
GWP-b	kg CO2 eq	-2.70E+1	6.02E-4	8.27E-2	-2.69E+1	3.96E-4	2.71E+1	2.82E-4	-9.94E-2	6.36E-2
GWP-luluc	kg CO2 eq	3.37E-2	4.78E-4	3.31E-4	3.45E-2	2.31E-4	3.59E-3	5.54E-6	-1.43E-2	2.40E-2
ODP	kg CFC11 eq	3.14E-6	2.88E-7	1.74E-7	3.60E-6	1.50E-7	4.94E-7	8.08E-9	-1.86E-6	2.40E-6
AP	mol H+ eq	2.42E-1	7.57E-3	3.94E-3	2.53E-1	3.71E-3	2.18E-2	1.93E-4	-1.02E-1	1.77E-1
EP-fw	kg P eq	1.16E-3	1.32E-5	1.79E-5	1.19E-3	5.36E-6	1.05E-4	2.54E-7	-4.44E-4	8.58E-4
EP-m	kg N eq	4.27E-2	2.67E-3	6.76E-4	4.61E-2	1.33E-3	6.65E-3	1.49E-4	-2.01E-2	3.41E-2
EP-T	mol N eq	4.89E-1	2.94E-2	7.25E-3	5.26E-1	1.46E-2	7.35E-2	7.84E-4	-2.34E-1	3.81E-1
POCP	kg NMVOC eq	2.10E-1	8.39E-3	2.42E-3	2.21E-1	4.19E-3	2.26E-2	2.93E-4	-9.48E-2	1.53E-1
ADP-mm	kg Sb eq	3.34E-3	3.31E-5	3.14E-5	3.40E-3	1.69E-5	7.93E-5	1.95E-7	-3.16E-4	3.18E-3
ADP-f	MJ	1.95E+3	1.97E+1	1.66E+1	1.99E+3	1.00E+1	6.35E+1	5.90E-1	-9.85E+2	1.08E+3
WDP	m3 depriv.	3.95E+1	7.04E-2	1.15E-1	3.97E+1	3.07E-2	1.29E+0	3.09E-3	-1.69E+1	2.42E+1
PM	disease inc.	2.96E-6	1.17E-7	3.12E-8	3.11E-6	5.88E-8	3.37E-7	4.05E-9	-1.04E-6	2.47E-6
IR	kBq U-235 eq	1.71E+0	8.24E-2	2.74E-2	1.82E+0	4.37E-2	1.94E-1	2.74E-3	-5.69E-1	1.50E+0
ETP-fw	CTUe	5.48E+2	1.75E+1	2.43E+1	5.90E+2	8.12E+0	8.12E+1	5.64E-1	-2.31E+2	4.48E+2
HTP-c	CTUh	2.70E-8	5.69E-10	1.19E-9	2.88E-8	2.89E-10	9.58E-9	1.46E-11	-1.09E-8	2.78E-8
HTP-nc	CTUh	5.27E-7	1.92E-8	2.77E-8	5.74E-7	9.69E-9	1.12E-7	3.36E-10	-2.11E-7	4.85E-7
SQP	Pt	2.47E+3	1.71E+1	4.85E+0	2.49E+3	8.56E+0	5.03E+1	1.51E+0	-1.23E+3	1.32E+3
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	4.33E+2	2.46E-1	3.64E+1	4.69E+2	1.44E-1	3.11E+0	2.32E-2	-2.06E+2	2.67E+2
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	4.33E+2	2.46E-1	3.64E+1	4.69E+2	1.44E-1	3.11E+0	2.32E-2	-2.06E+2	2.67E+2
PENRE	MJ	2.09E+3	2.09E+1	1.80E+1	2.13E+3	1.06E+1	6.77E+1	6.26E-1	-1.06E+3	1.15E+3
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	2.09E+3	2.09E+1	1.80E+1	2.13E+3	1.06E+1	6.77E+1	6.26E-1	-1.06E+3	1.15E+3
PET	MJ	2.52E+3	2.11E+1	5.44E+1	2.60E+3	1.08E+1	7.08E+1	6.49E-1	-1.27E+3	1.41E+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	6.70E-1	2.40E-3	3.31E-3	6.76E-1	1.13E-3	4.56E-2	7.28E-4	-2.61E-1	4.62E-1

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	5.06E-4	4.99E-5	2.21E-5	5.78E-4	2.56E-5	1.09E-4	7.12E-7	-3.53E-4	3.60E-4
NHWD	kg	3.76E+0	1.25E+0	5.62E-2	5.06E+0	6.20E-1	3.44E+0	2.60E+0	-1.39E+0	1.03E+1
RWD	kg	1.83E-3	1.29E-4	4.07E-5	2.00E-3	6.80E-5	2.46E-4	3.85E-6	-5.56E-4	1.77E-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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