PLASSON®

EPD®

Environmental Product Declaration

In accordance with ISO 14025 and EN 15804:2012+A2:2019 for

496304125025

Programme - The International EPD® System, www.environdec.com

Programme operator - EPD International AB

EPD registration number - Registration TBD

An EPD should provide current information and may be updated if conditions change. The stated validity is therefore subject to the continued registration and publication at www.environdec.com

General Information

Programme Information

Programme:	The International EPD® System
Address:	EPD International AB, Box 210 60, SE-100 31 Stockholm, Sweden
Website:	www.environdec.com
E-mail:	info@environdec.com

Accountabilities for PCR, LCA and independent, third-party verification:

Product Category Rules (PCR)

CEN standard EN 15804 serves as the Core Product Category Rules (PCR)

Product Category Rules (PCR): Construction products 2019:14 version 1.3.2
UN CPC code 3632 – Tubes, pipes and hoses, and fittings therefor, of plastics

PCR review was conducted by: NA

Life Cycle Assessment (LCA)

LCA accountability: Eli Shmushko, Green Target
Contact at: office@yaadyarok.co.il
More info: www.yaadyarok.co.il

Third-Party Verification

Procedure for follow-up of data during EPD validity involves third party verifier:

☐ Yes ☒ No

The EPD owner has the sole ownership, liability, and responsibility for the EPD.

EPDs within the same product category but from different programs may not be comparable.
EPDs of construction products may not be comparable if they do not comply with EN 15804.
For further information about comparability, see EN 15804 and ISO 14025.

Company Information

Owner of the EPD: PLASSON Ltd

Contact: Noa Slaiter, Environmental and Logistic Complaints Manager.

Description of the organisation: PLASSON is a global leader in the development, manufacturing and marketing of high-quality technical products: Flow Solutions (fittings & valves), livestock equipment, products for the bathroom and kitchen, and other activities.

Product-related or management system-related certifications:

PLASSON Ltd maintains several important certifications:

- ISO 50001 for Energy Management
- ISO 9001 for Quality Management Systems
- ISO 14001 for Environmental Management Systems

Additionally, our products meet and are certified to leading international standards, ensuring they comply with globally recognized quality and performance.

Name and location of production site(s): PLASSON LTD's production site is located in Maagan Michael, Israel.

Product Information

Product name: 496304125025

Product identification: TAPPING SADDLE 125x25

Product description: The ElectroFusion fittings are part of a complete ElectroFusion smart system ensuring safe, dependable connections.

UN CPC code: 3632 – Tubes, pipes and hoses, and fittings therefor, of plastics.

Geographical scope: The study represents the manufacturing of plastic pipe fittings in PLASSON's manufacturing factory in Maagan Michael, Israel.

LCA Information

Functional unit / declared unit: 1 product unit

Time representativeness: The specific data for the LCA study is based on 2022 production data from PLASSON's manufacturing site in Maagan Michael. Since LCI data does not include Israel-specific data, the electricity was modelled according to the private electricity supplier (Dorad) production mix.

Database(s) and LCA software used: Open LCA v2.0.0 & Ecoinvent v3.8 (cut-off approach).

Description of system boundaries:

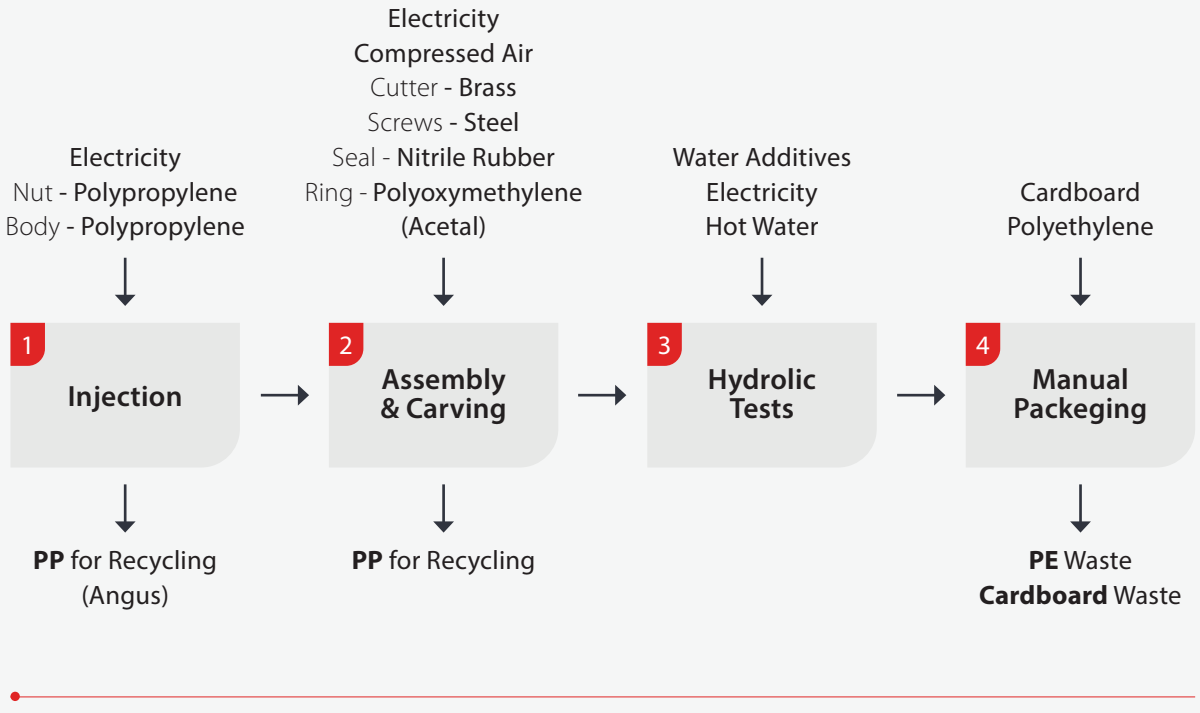
Cradle to gate (A1–A3).
Modules A4, A5, B, C & D were excluded from the LCA study.

Cut-off rules & assumptions: All inputs & outputs were considered in this study. The study does not include the manufacturing processes and maintenance of capital goods or spare parts as their lifespan is more than 3 years.

The environmental impacts of general organizational operations and employees' activities (offices, travels etc.) were not included in this study as well, as they are relevant for PLASSON's entire manufacturing sites and headquarters and not only for the production lines.

Allocations: According to EN 15804:2012+A2:2019, allocations in this LCA were avoided where possible. Energy and waste data have been allocated on physical criteria of mass as this data in the process level was not available.

System Diagram



Modules declared, geographical scope, share of specific data (in GWP-GHG indicator) and data variation:

	Product Stage			Construction Process Stage		Use Stage							End of Life Stage				Resource Recovery Stage
	Raw Material Supply	Transport	Manufacturing	Transport	Construction Installation	Use	Maintenance	Repair	Replacement	Refurbishment	Operational Energy Use	Operational Water Use	De-Construction Demolition	Transport	Waste Processing	Disposal	Reuse-Recovery-Recycling-Potential
Module	**A1**	**A2**	**A3**	**A4**	**A5**	**B1**	**B2**	**B3**	**B4**	**B5**	**B6**	**B7**	**C1**	**C2**	**C3**	**C4**	**D**
Modules Declared	X	X	X	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Geography	IL EUR Glo	IL EUR Glo	IL EUR Glo	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Specific Data Used	>90%					-	-	-	-	-	-	-	-	-	-	-	-
Variation – Products	0%					-	-	-	-	-	-	-	-	-	-	-	-
Variation – Sites	0%					-	-	-	-	-	-	-	-	-	-	-	-

Product Stage (A1-A3):

Module A1 – Raw Material Supply

The manufacturing process of the product at PLASSON's manufacturing site includes both polymers injection molding on-site and assembly of pre-maid metal and polymers parts purchased from various suppliers.
This module includes the raw materials and packaging materials extraction.

Module A2 – Transport (Materials)

This module includes the transport of all raw materials, buy-parts and packaging materials. All the parts and materials are imported from Europe, Asia and Israel and transported overseas by container ships and by trucks to PLASSON's manufacturing site in Maagan Michael.

Module A3 – Manufacturing

Polymers are mixed together according to the products' recipe and injection molded into the required shape. The metal and plastic parts are then assembled to the product. All machinery involved is derived by electricity. The final product is then packed in plastic bags and cardboard boxes which are piled up on wooden pallets for storage and transportation.

Content Information

Product Components	Weight, kg	Post-Consumer Material, Weight - %	Renewable Material, Weight - %
Polymers	0.651	0	0
Metal Parts	0.232	0	0
Plastic Parts	0.0033	0	0
Paper	0.00009	0	0
Electrical Component	8.5E-06	0	0
TOTAL	0.886	0	0
Packaging Materials	**Weight, kg**	**Weight - % (versus the product)**	
Cardboard Box	0.093	10%	
LDPE Bags	0.016	2%	
TOTAL	0.109	12%	

- The product declared in this LCA study does not contain substances from the SVHC list.

Environmental Information

Potential environmental impact – mandatory indicators according to EN 15804

Indicator	Unit	A1	A2	A3	Tot.A1-A3
GWP - Fossil	kg CO_2 eq.	1.80	5.65E-02	1.84	3.69
GWP - Biogenic	kg CO_2 eq.	-2.80E-02	-1.27E-05	3.67E-02	8.7E-03
GWP - Luluc	kg CO_2 eq.	1.94E-03	3.82E-05	7.56E-04	2.74E-03
GWP - Total	kg CO_2 eq.	1.77	5.66E-02	1.88	3.70
ODP	kg CFC 11 eq.	3.04E-07	1.14E-08	9.98E-08	4.15E-07
AP	mol H^+ eq.	3.15E-02	1.58E-03	3.78E-03	3.69E-02
EP - Freshwater	kg P eq.	2.14E-03	2.23E-06	2.55E-04	2.40E-03
EP - Marine	kg N eq.	2.44E-03	3.88E-04	8.92E-04	3.72E-03
EP - Terrestrial	mol N eq.	2.78E-02	4.31E-03	8.80E-03	4.09E-02
POCP	kg NMVOC eq.	9.52E-03	1.12E-03	2.63E-03	1.33E-02
ADP - Minerals&metals*	kg Sb eq.	5.24E-04	9.08E-08	2.21E-05	5.46E-04
ADP - Fossil*	MJ	10.5	4.80E-02	4.29	14.8
WDP	m^3	1.20	2.17E-03	2.85E-01	1.48
Acronyms	GWP-fossil = Global Warming Potential fossil fuels; GWP-biogenic = Global Warming Potential biogenic; GWP-luluc = Global Warming Potential land use and land use change; ODP = Depletion potential of the stratospheric ozone layer; AP = Acidification potential, Accumulated Exceedance; EP-freshwater = Eutrophication potential, fraction of nutrients reaching freshwater end compartment; EP-marine = Eutrophication potential, fraction of nutrients reaching marine end compartment; EP-terrestrial = Eutrophication potential, Accumulated Exceedance; POCP = Formation potential of tropospheric ozone; ADP-minerals&metals = Abiotic depletion potential for non-fossil resources; ADP-fossil = Abiotic depletion for fossil resources potential; WDP = Water (user) deprivation potential, deprivation-weighted water consumption.				

- **Disclaimer:** The results of this environmental impact indicator shall be used with care as the uncertainties of these results are high or as there is limited experience with the indicator.

Potential environmental impact – additional mandatory and voluntary indicators

Indicator	Unit	A1	A2	A3	Tot.A1-A3
GWP-GHG[1]	kg CO_2 eq.	1.77	5.66E-02	1.88	3.70

Use of resources

Indicator	Unit	A1	A2	A3	Tot.A1-A3
PERE	MJ	1.87	3.89E-03	4.68E-01	2.34
PERM	MJ	1.09	1.75E-03	1.48E-01	1.24
PERT	MJ	2.96	5.64E-03	6.16E-01	3.58
PENRE	MJ	13.0	5.33E-02	4.81	17.9
PENRM	MJ	33.7	6.87E-01	29.2	63.6
PENRT	MJ	46.7	7.41E-01	34.0	81.5
SM	kg	4.83E-01	5.14E-04	3.64E-02	5.20E-01
RSF	MJ	1.95E-02	5.26E-05	3.06E-03	2.26E-02
NRSF	MJ	2.78E-02	1.04E-04	8.82E-03	3.68E-02
FW	m^3	2.85E-02	5.26E-05	9.93E-03	3.85E-02
Acronyms	PERE = Use of renewable primary energy excluding renewable primary energy resources used as raw materials; PERM = Use of renewable primary energy resources used as raw materials; PERT = Total use of renewable primary energy resources; PENRE = Use of non-renewable primary energy excluding non-renewable primary energy resources used as raw materials; PENRM = Use of non-renewable primary energy resources used as raw materials; PENRT = Total use of non-renewable primary energy re-sources; SM = Use of secondary material; RSF = Use of renewable secondary fuels; NRSF = Use of non-renewable secondary fuels; FW = Use of net fresh water.				

[1] The indicator includes all greenhouse gases included in GWP-total but excludes biogenic carbon dioxide uptake and emissions and biogenic carbon stored in the product. This indicator is thus almost equal to the GWP indicator originally defined in EN 15804:2012+A1:2013.

Waste production and output flows

Waste production

Indicator	Unit	A1	A2	A3	Tot.A1-A3
Hazardous waste disposed	kg	15.9	1.15E-02	1.42	17.3
Non-hazardous waste disposed	kg	1.45E-01	7.62E-03	6.39E-02	2.16E-01
Radioactive waste disposed	kg	1.12E-03	8.78E-06	3.30E-04	1.46E-03

Output flows

Indicator	Unit	A1	A2	A3	Tot.A1-A3
Components for re-use	kg	3.10E-06	4.30E-25	3.94E-22	3.10E-06
Material for recycling	kg	1.08E-01	4.48E-04	2.11E-02	1.29E-01
Materials for energy recovery	kg	0	0	0	0
Exported energy, electricity	MJ	0	0	0	0
Exported energy, thermal	MJ	0	0	0	0

Information on biogenic carbon content

Results per functional or declared unit		
Biogenic carbon content	**Unit**	**Quantity**
Biogenic carbon content in product	kg C	NA
Biogenic carbon content in packaging	kg C	NA

- **Note:** 1 kg biogenic carbon is equivalent to 44/12 kg CO_2.

References

General Programme Instructions of the International EPD® System. Version 3.01.

- General Program Instructions of the International EPD® System. Version 4.0.
- PCR 2019:14. Construction Products. Version 1.3.1.
- ISO14020:2000 Environmental labels and declarations – General principles.
- ISO14025:2006 Environmental labels and declarations – Type III environmental declarations – principles and procedures.
- ISO14040:2006 Environmental management – Life cycle assessment – principles and framework.
- ISO14044:2006 Environmental management – Life cycle assessment – requirements and guidelines.
- 15804:2012+A2:2019/AC:2021 Sustainability of construction works – Environmental product declarations – Core rules for the product category of construction products.
- Ecoinvent database V3.8.

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