Environmental product declaration

USHUAIA SUN LOUNGER – FAST SPA

Programme: The International EPD® System
Programme Operator: EPD International AB

UN CPC 3811
Seats

PCR 2009:02 Seats. Version 3
Scope of geographical application: Global

Geographical scope: Global
Date of approval: 09-11-2020
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In accordance with ISO 14025

For further information about the EPD programme, visit the website: www.environdec.com

1 INTRODUCTION

Type III Environmental Product Declarations contain transparent and comparable information about the life-cycle environmental impact of products. Their goal is to produce reliable information expressed on a common basis which make it possible to compare the environmental performance levels of products having the same function. In this view of product sustainability, Type III Environmental Product Declarations are developed in conformity with the requirements and provisions set out in the voluntary standard UNIEN ISO 14025:2010 and to ensure the LCA studies are conducted consistently for all products which fall within the same category, specific rules and methods need to be observed. These rules are indicated by the PCR – Product Category Rules – which formulate instructions about the performance of a life cycle analysis for a specific product category, ensuring harmony and comparability of results.

2 INFORMATION ABOUT THE COMPANY AND PRODUCT

2.1 THE COMPANY[1]

Figure 1- Explanatory picture

Fast was born in Valle Sabbia (Figure 1) in 1995 when the Levrangi family identified aluminium as the material of choice: light, versatile, ductile and sustainable because it can be recycled indefinitely. The company chooses to develop 100% outdoor products designed to be durable over time, resistant to atmospheric agents and completely waterproof. Thanks to the collaboration with Robby and Francesca Cantarutti, the Forest collection, still the company's bestseller, made its debut in 2007. Instead, it is the intuition of Studio Lievore Altherr in Barcelona that leads to experience, ten years later, a new sensuality of aesthetic lines and above all new, sophisticated materials. The focus is also on customization: the skills in aluminium processing, combined with rigorous internal production and authentic Made in Italy, allow for a wide range of customizations in terms of sizes, colours and finishes. Fast's Outdoor Lifestyle is expressed in all its forms: not only the garden, the patio facing the sea, the large park, but also the squares, the city streets, the terraces of megacities surrounded by skyscrapers. It is a nature that we are committed to protecting, in a concrete approach to sustainability: this is why we involve the entire supply chain in continuous research, aimed at increasing the longevity of products and reducing their impact throughout the life cycle.

2.2 THE PRODUCT

The Ushuaia sun lounger paints the perfect picture of what is usually defined as “summer relaxation”. Stackable, with 7-position reclining backrest. None of the substances contained in the current version of the European regulation “Candidate List” 1907/2006/EC (REACH Registration, Evaluation, Authorisation and Restriction of Chemicals) is present in a concentration above 0.1% in weight in the product sold. Moreover, it is hereby declared that the product is not subject to classification or labelling in accordance with directive 67/548/EC and EC Regulation no.1272/2008 (CLP) since it is considered an article and therefore falls outside their scope of application.

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Table 1

MATERIAL	kg	
Aluminium	1.54E+01	Materials
Steel	2.45E-01	
Paint	5.00E-01	
PVC	1.00E-02	
Canvas	8.00E-01	
Rubber	1.54E-01	
Glue	1.71E-02	
Cardboard	9,80E+00	Packaging
PE	1.69E+00	
Wood	5.80E-01	

3 LCA INFORMATION

3.1 DECLARED UNIT

The declared unit is 1 (one) sun lounger for its entire life cycle.

3.2 REFERENCE SERVICE LIFE

The estimated service life is 15 years.

3.3 TIME BOUNDARIES

The time limits include the period from January 2017 to December 2017, a time span considered as representative of the company's activities. These were chosen given the most complete availability of information relating to the analysis.

3.4 DESCRIPTION OF SYSTEM BOUNDARIES

In accordance with the PCR, the environmental impact assessment follows the life cycle phases: Upstream, Core and Downstream.

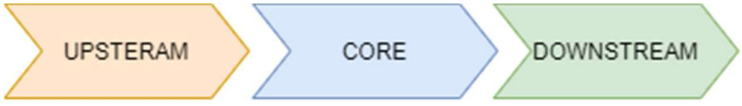

Figure 2

3.5 SYSTEM DIAGRAM AND PRODUCTION PROCESSES

For each phase, the environmental performance indicators summed up in Figure 3 were investigated. Primary data catalogued by the manufacturer was favoured in the choice of data to use for the study.

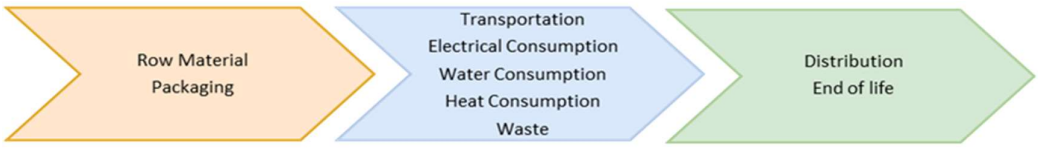

Figure 3

These data make up the primary source of information for the inventory analysis. They can be grouped together according to environmental performance indicators, which will subsequently refer to the environmental performance results. These indicators were used to process the software model and the inventory analysis therefore developed according to macro consumption referring to the declared unit which characterises the study.

Below is a block diagram (Figure 4) that defines the stages making up the production process of the products analysed.

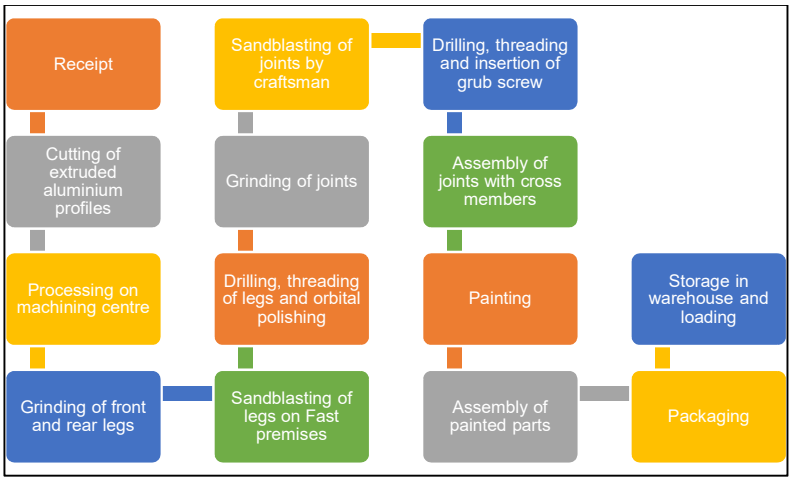

Figure 4

4 ENVIRONMENTAL PERFORMANCE

4.1 POTENTIAL ENVIRONMENTAL IMPACT

Below are the results of the ecoprofile obtained from the life cycle analysis of the products concerned by the environmental declaration, along the phases of their life cycle.

Table 2: Ecoprofile assessment with reference to the declared unit

USHUAIA SUN LOUNGER		INFORMATION MODULES			
Category of impact	Unit of measurement	UPSTREAM	CORE	DOWNSTERAM[2]	TOTAL
Abiotic depletion	kg Sb eq	2.89E-04	2.91E-06	1.97E-06	2.94E-04
Abiotic depletion (fossil fuels)	MJ	1,87E+03	9,94E+01	6,45E+01	2,03E+03
Global warming(GWP100a)[1]	kg CO2 eq	1,43E+02	7,40E+00	2,87E+01	1,79E+02
Carbon dioxide, biogenic	kg CO2 eq	2.23E+00	2.46E-01	2.16E+00	4.64E+00
Carbon dioxide, fossil	kg CO2 eq	1.30E+02	1.56E+01	5.54E+00	1.51E+02
Ozone layer depletion (ODP)	kg CFC-11 eq	7.37E-06	7.11E-07	3.36E-07	8.42E-06
Eutrophication	kg PO4--- eq	3.05E-01	7.48E-03	4.58E-02	3.59E-01
Acidification (fate not incl.)	kg SO2 eq	1.12E+00	2.66E-02	2.51E-01	1.40E+00
Photochemical oxidant formation	kg NMVOC	5.39E-01	1.77E-02	2.89E-01	8.45E-01
WSI	m3	4.67E+04	2.61E+02	1.29E+02	4.71E+04
Land Use	species.yr	1.67E-07	2.53E-09	1.64E-09	1.71E-07
Human toxicity, cancer	CTUh	1.50E-06	2.38E-10	5.27E-09	1.50E-06
Human toxicity, non-cancer	CTUh	2.03E-09	1.29E-11	2.62E-10	2.30E-09
Ecotoxicity	CTUe	1,11E+00	6.93E-03	4.41E-02	1.16E+00

1=The indicator GWP100 includes the biogenic component. 2= In the study, we hypothesised that all the aluminium is recovered. For the remainder of the materials, the percentage incineration / landfill was taken from the last ISPRA waste report in Italy.

4.2 USE OF RESOURCES AND WASTE PRODUCTION

For each product concerned by the declaration and with reference to the declared unit, below are the parameters describing the use of resources and the production of waste deriving directly from the LCI.

Table 3

PARAMETERS		UNIT	UP	CORE	DOWN	TOTAL
Primary energy resources - Renewable	Used as an energy carrier	MJ	8.33E+01	8.30E+01	4.41E-02	1.66E+02
	Used as raw materials	MJ	1.31E+00	4.41E-03	8.20E-06	1.32E+00
Primary energy resources - Non renewable	Used as an energy carrier	MJ	2.80E+02	6.01E+02	3.31E+01	9.14E+02
	Used as raw materials	kg	1.88E+01	4.51E-01	2.30E+00	2.16E+01
Secondary material		kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Renewable secondary fuels		MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Non renewable secondary fuels		MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Net use of fresh water		m^3	3.42E+00	9.48E-02[2]	1.57E-02	3.53E+00

[2] Direct quantity of water used by the core processes: 9.47E-02 m^3

Table 4

PARAMETERS	UNIT	UP	CORE	DOWN	TOTAL
Hazardous waste disposed of	kg	3.09E-02	2.75E-04	1.50E-05	3.12E-02
Non hazardous waste disposed of	kg	2,29E+01	2.45E-01	1,33E+01	3.64E+01
Radioactive waste disposed of	kg	2.56E-03	1.50E-04	2.20E-05	2.73E-03

5 REFERENCES

PCR 2009:02 Seats. Version 3

UNI EN ISO 14025:2010 – Environmental labels and declarations - Type III environmental declarations - Principles and procedures.

UNI EN ISO 14040:2006 – Environmental management - Life cycle assessment - Principles and framework.

UNI EN ISO 14044:2018 – Environmental management - Life cycle assessment - Requirements and guidelines.

GENERAL PROGRAMME INSTRUCTIONS FOR THE INTERNATIONAL EPD® SYSTEM VERSION 3.01 (2019-09-18)

Report LCA_FAST_V3.1.1

INFORMATION ABOUT THE PROGRAMME

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

Product category rules (PCR): *PCR 2009:02 Seats. Version 3*
EPD REGISTRATION NUMBER: S-P-02381
The review of the PCR was conducted by: The International EPD® System technical committee. Complete list of TC members available at: www.environdec.com/TC
Independent third-party verification of the declaration and data, according to ISO 14025 ☒ EPD process certification ☐ EPD verification
Third party verifier: Martin Erlandsson – *martin@erlandsson@ivl.se*
Procedure for follow-up of data during EPD validity involves third party verifier: ☒ Yes ☐ No

The EPD owner has sole ownership, responsibility and liability for the EPD. The EPDs in the same category of products but from different programmes may not be comparable. The EPDs of construction products may not be comparable unless they conform to EN 15804.

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