Serena Teak SO1191



Declaration Owner
Andreu World
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Product
SO1191 Serena Iroko

Functional Unit
One seating unit to seat one individual for a reference warranty of 10 years and service life of 50 years. The reference unit used in the study is one complete product.

Data
Published on Nov 3, 2025
Last updated on Nov 3, 2025
Valid until Nov 3, 2030

Product Category Rule
Sector: Construction Product
PCR: EPD Hub Core PCR Version 1.2, 24 Mar 2025

Declaration Owner	Andreu World S.L
Address:	Calle de los Sauces 7, 46370, Chiva (Comunidad Valenciana)
Contact details:	961 80 57 00
Website:	www.andreuworld.com
Product Group	Outdoor
Collection	Serena Iroko
Reference	SO1191
Product reference service life	50 years
Product warranty	10 years
Reference standard	EN 15804+A2:2019 and ISO 14025
EPD Scope	Cradle-to-grave
PCR	EPD Hub Core PCR Version 1.2, 24 Mar 2025
Sector	Construction product
Intended audience	Business-to-business and/or business-to-consumer communication
Period of data	Calendar year 2024
Functional Unit	One seating unit to seat one individual for a reference warranty of 10 years and service life of 50 years. The reference unit used in the study is one complete product.
Published on	Nov 3, 2025
Last updated	Nov 3, 2025
Valid until	Nov 3, 2030
Additional labels	FSC® BCorp ISO 14006 ISO 14001 ISO 9001 level® 3 certified to ANSI/BIFMA e3 Standard Indoor Air Quality-Advantage™ Gold Global Reporting Initiative Cradle to Cradle Certified® OK Biobased Green health Approved Carbon Neutral Company 100% Pure ECO® Zero Waste
Place(s) of the raw materials origin	Europe
Place of Production	Valencia, Spain.
Place of installation and use	Global
LCA data base	Ecoinvent 3.10.1

1. Product description

Serena Iroko is a chair created for outdoor use. Its structure, built in certified iroko wood, offers high comfort, through the unique braiding of straps on its seat and back, which provides extra comfort. With two chair options with or without arms, it gives warmth to outdoor terraces or also in multipurpose indoor environments.

Armchair with webbing seat and backrest and solid iroko wood frame.



2. Andreu World

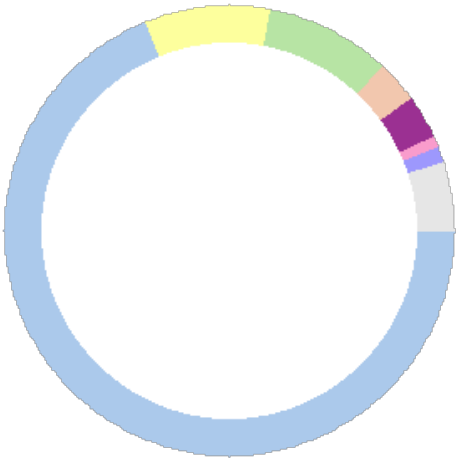
Andreu World is a global manufacturer and a leading company in sustainable design, recognized as the first in the furniture industry to certify its entire product catalog under the Cradle to Cradle standard for the circular economy. It operates as a zero-waste, carbon-neutral company and is proudly certified as a B Corp. Founded in 1955, Andreu World is a family-owned global brand known for creating high-quality, exceptionally comfortable, and sustainable seating and tables for hotels, restaurants, offices, homes, and outdoor spaces. In collaboration with internationally renowned designers such as Philippe Starck and Patricia Urquiola, Andreu World combines timeless design and environmental commitment, using FSC®-certified wood and sustainable materials such as Pure ECO® and BIO® Thermopolymer. With over 600 employees, 4 factories, and 33 showrooms worldwide, Andreu World is present in more than 90 countries and is a member of the Leading Brands of Spain Forum. The company has received major design awards, including the Red Dot and Spain’s National Design Award, and supports emerging talent through its prestigious International Design Contest.

3. Materials

3.1 Product Composition

Material	Cas Number	Weight %
Wood	67-56-1	69-71%
Fabric	25667-42-9	9-10%
Coating	9003-01-4	9-10%
Steel	7439-89-6	3-4%
Polyurethane foam	9009-54-5	3-4%
Polyethylene terephthalate	25038-59-9	1-2%
MS polymer	7085-85-0	1-2%
Polystyrene	9003-53-6	0,02-0,04%

Total material components

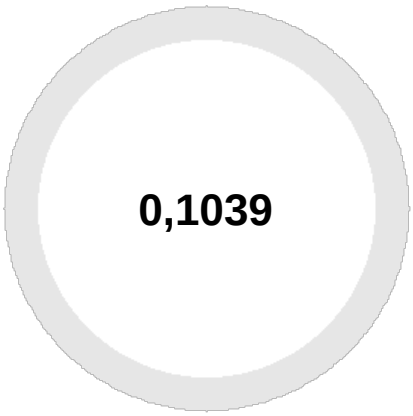


3.2 Product packaging composition

Material	Cas Number	Weight %
Cardboard	65996-61-4	66,5-68,5%
LDPE	9002-88-4	29-31%
Hotmelt	63393-89-5	1,5-3%

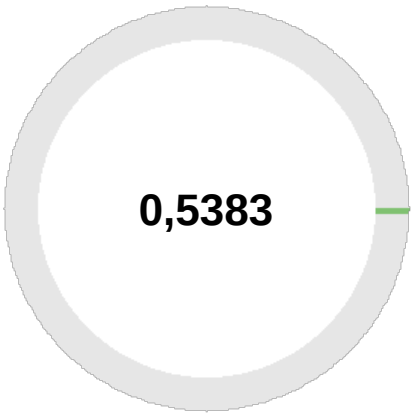
3.3 Summary of product recycled content and recycability

Product recycled content



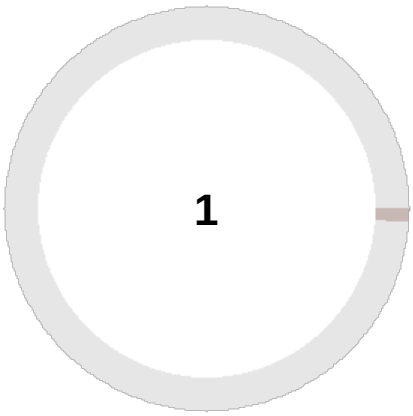
Pre-Consumer 0,0769
Post-Consumer 0,027

Packaging recycled content



Pre-Consumer 0
Post-Consumer 0,5383

Product recyclability



Recyclable 1

3.4 End of life

The product can be disassembled using standard hand tools. It contains only a few different materials, making it easy to sort for recycling. The main tools required are a manual or electric screwdriver, a staple remover, scissors, a cutter, etc. Andreu World can provide disassembly drawings if necessary.

Packaging

Polyurethane foam Recycling center		Recycling center
Cardboard Paper / Cardboard container		Paper / Cardboard container
Film Plastic / Metal container		Plastic / Metal container

Product

All separated materials		Recycling center

4. Assessment boundary

Life Cycle Assessment covers all stages of the product life cycle, from origin to disposal, including raw material extraction and processing, transport, product manufacture, delivery, installation and use, and finally disposal. It also considers the environmental burdens and benefits derived from recycled materials leaving the product system (Stage D).

	Stage	Scope	
MATERIALS ADQUISITION	A1. Raw materials	Extraction and processing of raw materials for the product components.	✓
	A2. Transport	Transport of component materials to the manufacturing facilities	✓
PRODUCTION PROCESS	A3. Manufacturing	Manufacturing of the product and packaging	✓
DISTRIBUTION AND INSTALLATION	A4. Transport	Transport of the product (including packaging) to the building site	✓
	A5. Assembly	Impacts from the installation of the product are assumed negligible with no installation wastage. Only impacts from packaging disposal are included in this stage.	—
USE	B1. Use	Use of the product in commercial building setting. There are no associated emissions or impacts from the use of the product.	—
	B2. Maintenance	Impacts associated with product maintenance are negligible.	—
	B3. Repair	The products are not expected to require repair over their lifetime.	—
	B4. Replacement	The products are not expected to require replacement over their lifetime	—
	B.5 Refurbishment	The products are not expected to require refurbishment over their lifetime.	—
	B.6 Operational energy use	There is no operational energy use associated with the use of the product.	—
	B.7 Operational water use	There is no operational water use associated with the use of the product.	—
END OF LIFE	C1. Deconstruction/ demolition	Demolition of the product is accomplished using hand tools with no associated emissions and negligible impacts.	—
	C2. Transport	Transport of the product to waste treatment at end of life.	✓
	C3. Waste processing	The products are disposed of by recycling, landfilling or incineration which require no waste processing.	✓
	C4. Disposal	Disposal of the product.	✓
BENEFITS AND LOADS BEYOND THE BOUNDARY	D. Reuse, Recovery and Recycling	Supplementary information regarding the potential net benefits from material recycling and energy recovery beyond the system boundary.	✓

5. Core enviromental impact indicators

The following life cycle parameter indicators have been calculated according to ISO 14040, ISO 14044, ISO 14025, and EN 15804+A2.

		Materials adquisition		Manufacturing	Distribution and instalation		End of Life			Benefits and loads	
Impact Category	**Unit**	**A1**	**A2**	**A3**	**A4**	**A5**	**C2**	**C3**	**C4**	**D**	**Total**
GWP - total Carbon footprint	kg CO2e	8,85E-01	2,69E+00	4,11E+00	3,87E+00	2,08E+00	1,08E-01	1,10E+01	3,48E+00	-1,33E+00	2,82E+01
GWP - fossil	kg CO2e	1,03E+01	2,69E+00	3,22E+00	3,87E+00	3,52E-01	1,08E-01	1,65E+00	4,37E-02	-1,37E+00	2,22E+01
GWP - biogenic	kg CO2e	-9,83E+00	1,34E-05	8,63E-01	8,85E-04	1,73E+00	2,42E-05	9,30E+00	3,44E+00	4,92E-02	5,50E+00
GWP - LULUC	kg CO2e	4,33E-01	9,68E-04	2,73E-02	1,75E-03	2,38E-05	4,78E-05	6,65E-05	1,09E-05	-2,77E-03	4,63E-01
Ozone depletion pot.	kg CFC-11e	1,90E-07	5,34E-08	8,03E-08	5,84E-08	4,00E-10	1,60E-09	1,30E-09	4,00E-10	-1,87E-08	3,86E-07
Acidification potential	mol H+e	8,25E-02	5,72E-03	9,68E-03	1,24E-02	1,67E-04	3,66E-04	1,17E-03	1,17E-04	-7,88E-03	1,12E-01
EP - freshwater	kg Pe	3,08E-03	1,82E-04	9,15E-04	3,03E-04	7,30E-06	8,33E-06	3,36E-05	1,04E-05	-8,55E-04	4,55E-03
EP - marine	kg Ne	1,49E-02	1,41E-03	3,32E-03	3,91E-03	1,98E-04	1,20E-04	9,30E-04	1,95E-03	-1,44E-03	2,67E-02
EP - terrestrial	mol Ne	1,07E-01	1,52E-02	2,44E-02	4,25E-02	6,14E-04	1,31E-03	5,81E-03	4,79E-04	-1,46E-02	1,97E-01
POCP ("smog")	kg NMVOCe	4,31E-02	9,45E-03	1,13E-02	1,84E-02	2,03E-04	5,39E-04	1,44E-03	1,93E-04	-4,65E-03	8,48E-02
ADP - minerals & metals	kg Sbe	7,65E-05	9,08E-06	2,09E-05	1,09E-05	2,22E-07	3,11E-07	6,70E-07	3,62E-08	-5,21E-06	1,18E-04
ADP - fossil resources	MJ	1,49E+02	3,77E+01	5,54E+01	5,66E+01	3,33E-01	1,56E+00	1,06E+00	3,60E-01	-2,25E+01	3,02E+02
Water use	m3e depr.	6,78E+00	1,89E-01	1,49E+00	2,80E-01	1,52E-02	7,65E-03	1,48E-01	1,79E-03	-4,96E-01	8,93E+00

GWP-total= Global Warming Potential total (Carbon Footprint); GWP – fossil = Global Warming Potential fossil; GWP – biogenic = Global Warming Potential biogenic; GWP – LULUC = Global Warming Potential, Land Use and Land Use Change; Ozone depletion pot.= Depletion potential of the stratospheric ozone layer; Acidification potential = Acidification potential, Accumulated Exceedance; EP-freshwater= Eutrophication aquatic freshwater; EP-marine = Eutrophication aquatic marine; EP-terrestrial = Eutrophication terrestrial; POCP ("smog")= Formation potential of tropospheric ozone; ADP-minerals & metals = Abiotic depletion potential (ADP-elements) for non fossil resources; ADP-fossil resources= Abiotic depletion potential (ADP-fossil fuels) for fossil resources; Water use= Water (user) deprivation potential, deprivation-weighted water consumption (WDP).

6. Additional labels

6.1 VOCs and other hazardous substances

Andreu World's products have been tested under ANSI/BIFMA e3-2011 Furniture Sustainability Standard sections 7.6.1 Or 7.6.2, does not contain urea formaldehyde, heavy metals such as mercury, cadmium, lead, antimony, PFCs, PVC, and hazardous substances from American and European standards.

6.2 LEED V5 Contributions

Category	Item	Contribution	
Materials and Resources	Optimized Building Products Possible 5 Points	Multi-attribute certifications: Cradle to Cradle: Bronze	2 Points
		Multi-attribute certifications: BIFMA e3/level	1 Point
		Multi-attribute certifications: FSC Certified	2.5 Points
		Multi-attribute certifications: Reused materials	2 Points
		Multi-attribute certifications: Recycled content	%
		Multi-attribute certifications: Biobased – nonwood	%
	Low-emitting materials Possible 3 points	Andreu World/'s products use the ANSI/BIFMA method to meet the Low-Emitting Materials credit obtaining SCS Indoor Advantage™ Gold certificate	1-3 Points

6.3 WELL V2 Q1-Q2 2025

Nourishment N08 - Mindful Eating. Andreu World offers a variety of furniture products to outfit dedicated eating spaces. (2 points)
Movement V07 - Active Furnishings. Sit-stand workstations with electric height adjustable configurations available. (2 points) (Reverse and Solid)
Sound S04 - Reverberation Time. Available fabrics and upholstered items that contribute absorbing the reverberance in indoor spaces. (2 points) (In Out Office)
Sound S05 - Sound Reducing Surfaces. Available products and materials that absorb and/or block sound to support concentration and reduce reverberation.
Materials X01 - Material Restrictions. Restrictions met for asbestos, mercury, and lead. (required)
Materials X05 - Enhanced Material Restrictions. Restrictions met for halogenated flame retardants (HFR), per- and polyfluoroalkyl substances (PFAS), lead, cadmium, and mercury. (1 point)
Materials X06 - VOC Restrictions. Products certified Indoor Advantage™ Gold for indoor air quality and meet ANSI/BIFMA e3-2014 sections 7.6.1 and 7.6.2. (2 points)
Materials X07 - Materials Transparency. Andreu World products are Cradle-to-Cradle Certified™ and the ingredient disclosure is verified by a third party (2 points)
Materials X08 - Materials Optimization. Andreu World products meet the chemical thresholds in the Cradle to Cradle Basic Level Restricted Substances List, version 4. (2 points)
Mind M02 - Nature and Place. Contribution by selecting textiles and finishes with natural materials, patterns, and colors. (required)
Mind M07 - Restorative Spaces. Selection of products can either create or be incorporated into restorative spaces. (1 point)
Community Feature C13 - Accessibility and Universal Design. Andreu World offers products and upholstery options that include similar or complementing design elements, allowing project teams to easily create visually grouped zones of furniture to support wayfinding, or to support neurodiverse individuals. (2 points)