



BIO PRODUCTS CATALOG



in DEX

CATALOG 2023

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OUR COMPANY

Chilean Company operating since 2014.

Bio products are produced with **Resins Bio E**, a versatile resin, circular, that has the capacity to biodegrade **from 3 to 20 months** depending on environment conditions.

Bio products from Bio elements are bio degrade in different types of environment, including landfills, composting and aqueous sites. Besides each one of them during the process of degradation do not alter in a negative way the growing of living beings such as plants and microorganisms (not bio toxic) and they are not toxic by heavy metals.

The company at the moment has operations in **Mexico, Brazil, Chile, Peru, Colombia, Argentina** and the **USA**.





MISSION

Our purpose is to
revoluBonize the packaging
industry offering soluPons and
development of bio degrade in to
be bio degrade in all environment



VISION

Be a leader company in
manufacture and development of
bio degrade **in America**



VALUES

Be a leader company in
manufacturing **bio degrade
products**





Innovation: We create new soluPons that contributes to mitigate the negative impacts that plastics produce around us.



Efficiency: We respond on time to the environmental challenges and user needs.



Customer orientation: We adjust our products to the specific requirements of each one of our customers.



Initiative: Acting on a proactive way to achieve with high quality standards considering the international normative in bio degrade topics.



OUR BIOPRODUCTS

Are Biodegradable: They come from raw material serving as source of energy for diverse microorganisms. Through action of biological agents such as fungi and bacteria, decomposition of our bioproducts is achieved and mass loss of themselves through Pme.



Biodegradable Aerobe:

With presence of Oxygen High temperatures

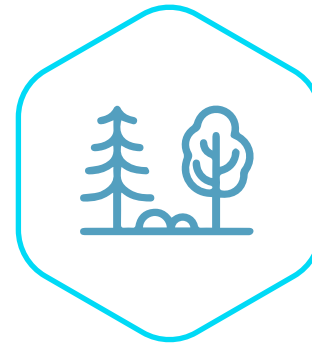
6 months



Biodegradable Anaerobe:

Without presence of oxygen Low temperatures

12-16 months



Biodegradable Environmental

Through acPon of filamentous fungi

20 months



Biodegradable marine environment:

Through marine microorganisms acPon

20 months

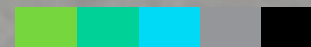


OUR BIOPRODUCTS

Are not toxics neither bio toxics for heavy metals:

These have been studied with the final purpose of insure that during the process of biodegradation are not bio toxics. This means that are not harmful for the environment when the microorganisms feed from our bio products.

Neither presents toxicity for heavy metals, which means that do not contribute in a harmful way the concentration of these metals in the environment during of acer the bio degradation process.



Studies and **CERTIFICATIONS**

Mxico



Brasil



Chile



Perú



UNIVERSIDAD NACIONAL AGRARIA
LA MOLINA



Colombia



EUA



Europa



Empresa



®

Certificada

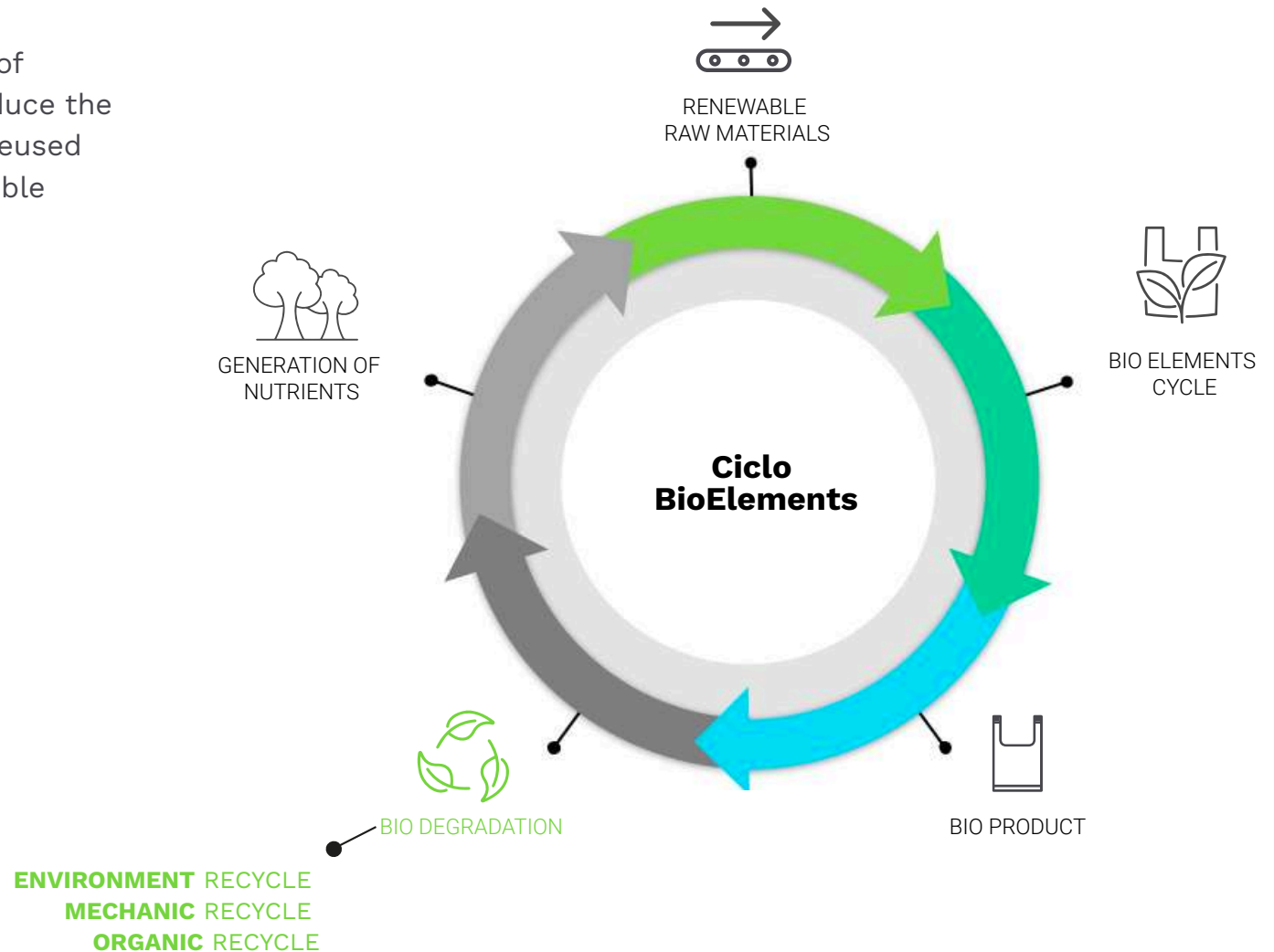
**We are part of B Companies
community**

This is a stamp where Bio elements guarantee commitment in building a new economy, which success and financial benefits incorporates social and environment well-being.

We are a team that believes in triple impact.

CIRCULAR Economy

We use our business on the principles of **Circular Economy**: our bio products reduce the generation of toxic material, it can be reused and they biodegrade reducing the possible negative impacts on environment.



AWARDS AND ACKNOWLEDGMENTS

Entrepreneurs of International **Endeavor Panel**. This organization promotes the emergence and development of new businessmen on high impact in emergent markets. The support is in focus in diminishing the access barriers to information, capital and contact network, key topics for new companies success.

Award Honoree **Award Regional Expansion ENDEAVOR**, celebrating the impact of great icons of Entrepreneur Ecosystem, within Welcome to Mexico category.

Winners of Prize **PwC Chile InnovaBon 2021**, this prize distinguish companies that have been successful on innovation and implementation of a new product, service or process that benefits people, responding to society needs.

Recognition by Camara Chileno Britanica with the XII Environment **Innovation Recognition** (RIGA 2021) whose general goal is to recognize and stand out innovation projects in sustainability topics taking in consideration the three pillars of it: the economic, social and environment.

Participation in **Go Global** (PRO CHILE & CORFO) which support the internationalization of Chilean companies that hold a sophisticated product of technological base and with scalability potential.



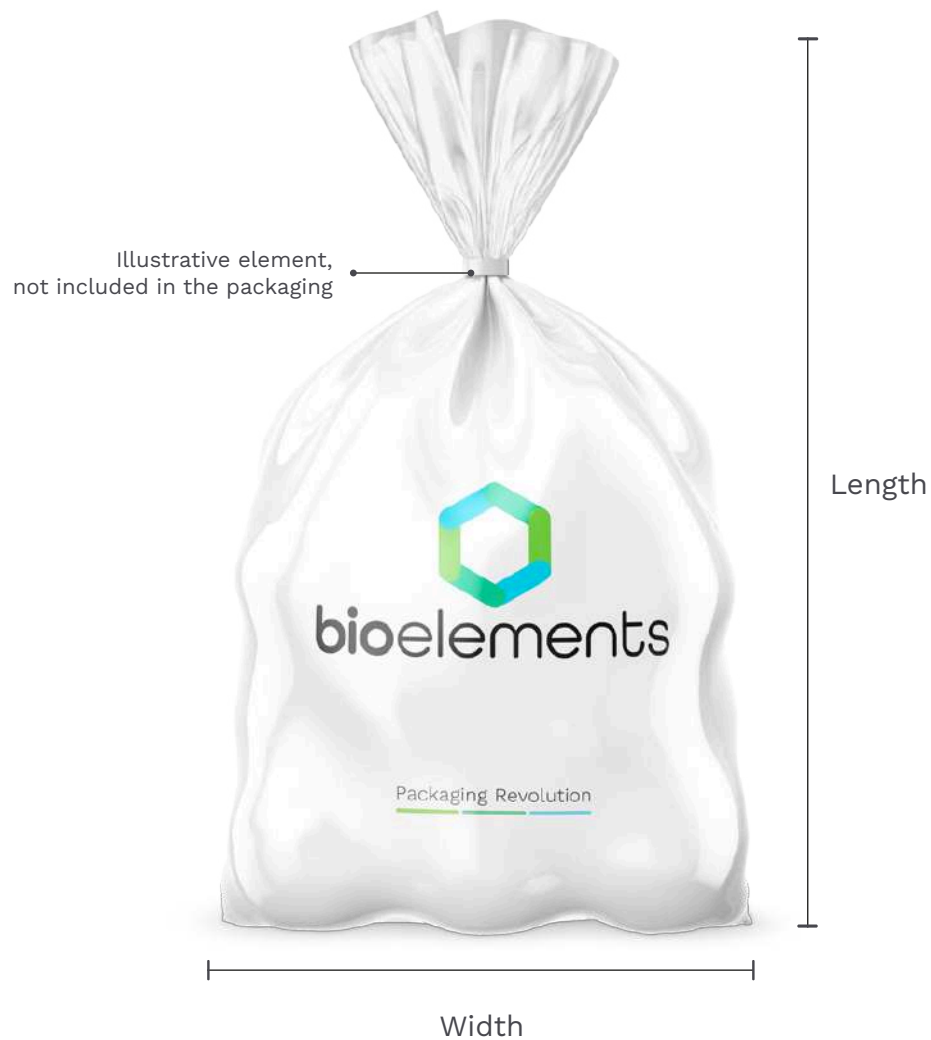
CÁMARA
CHILENO BRITÁNICA
DE COMERCIO



RETAIL WORLD

- ⦿ Bio Bags eco friendly, according to regulations and customer new tendencies
- ⦿ Good resistance, tension, flexibility and excellent finishing just as traditional bags
- ⦿ They are an excellent option as goods in carrying bags and envelopes for e-commerce dispatch
- ⦿ So too for internal using companies such as Bio biodegrading bags and compostable garbage, laundry and coins
- ⦿ Elaboration of Bio Bags for own brand
- ⦿ All our Bio Bags are customizable, in size, colors, thickness and customer needs

BioBag SACK



Bio Bag Sack Side Gusset

Features / Measures	Minimum	Maximum
Width (cm)	80	140
Length (cm)	50	150
Thickness (microns)	15	50
Gusset (cm)	10	15

Colors: Up to three per face

BIO BAG SACK without side

Features / Measures	Minimum	Maximum
Width (cm)	20	100
Length (cm)	30	150
Thickness (microns)	15	50

Colors: Up to three per face

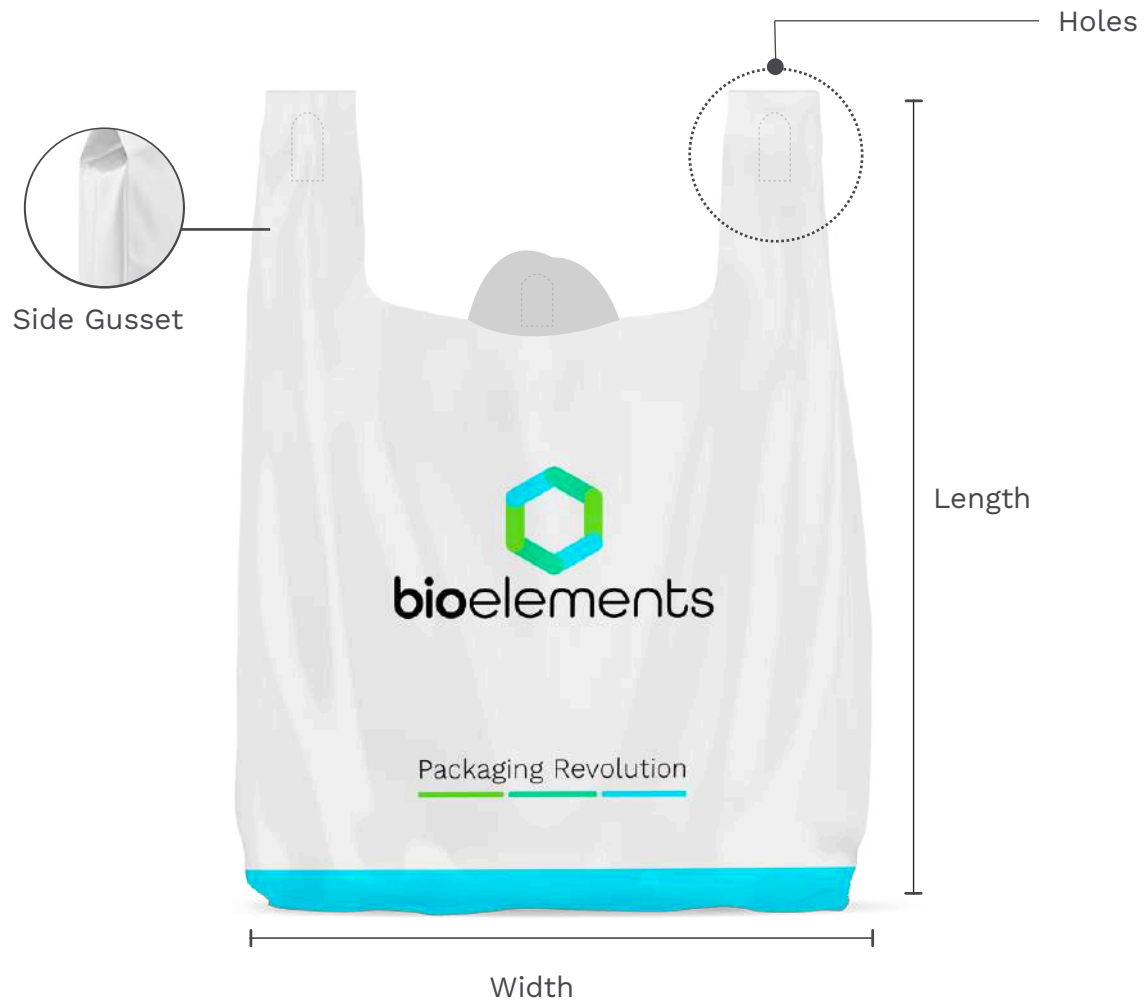
BIO BAG SACK with lower

Features / Measures	Minimum	Maximum
Width (cm)	18	90
Length (cm)	35	85
Thickness (microns)	45	100
Gusset (cm)	5	12

Colors up to six per face

Prints: front and back 2+3
Single-sided 6-color printing.

BioBag T-SHIRT



BioBag T-Shirt

Features / Measures	Minimum	Maximum
Width (cm)	33	70
Length (cm)	40	70
Thickness (microns)	13	50

Colors: Up to three per face

Prints: front and back 2+3
Single-sided 6-color printing.

ECOMMERCE/COURIER

BioBag



BioE-commerce with lower gusset

Features / Measures	Minimum	Maximum
Width (cm)	18	90
Length (cm)	25	85
Flap (cm)	3	5
Thickness (microns)	45	100
Gusset (cm)	5	12

Colors: Up to six per face

BioE-commerce without lower gusset

Features / Measures	Minimum	Maximum
Width (cm)	18	90
Length (cm)	25	85
Flap (cm)	3	5
Thickness (microns)	45	100

Colors: Up to six per face

Ask for following options:

- Film y prepicadas para máquinas de pedidos automáticos tipo autobagger o pack machinery u otras.

For 6-color printing per side, maximum 65 cm in total length (60+5).

For printing greater than 65 cm long, 2+3 colors per side.

BRIDA BioBag



BioBag Brida

Features / Measures	Minimum	Maximum
Width (cm)	30	80
Length (cm)	40	80
Thickness (microns)	30	100

Colors: Up to six per face

- Ask for **Gusset options**

For 6-color printing per side, maximum 65 cm in total length (60+5).

For printing greater than 65 cm long, 2+3 colors per side.

KIDNEY BioBag



Kidney BioBag with lower

Features / Measures	Minimum	Maximum
Width (cm)	30	80
Length (cm)	40	80
Thickness (microns)	30	100
Gusset (cm)	5	12

Colors up to six per face

Kidney Bio Bag without lower gusset

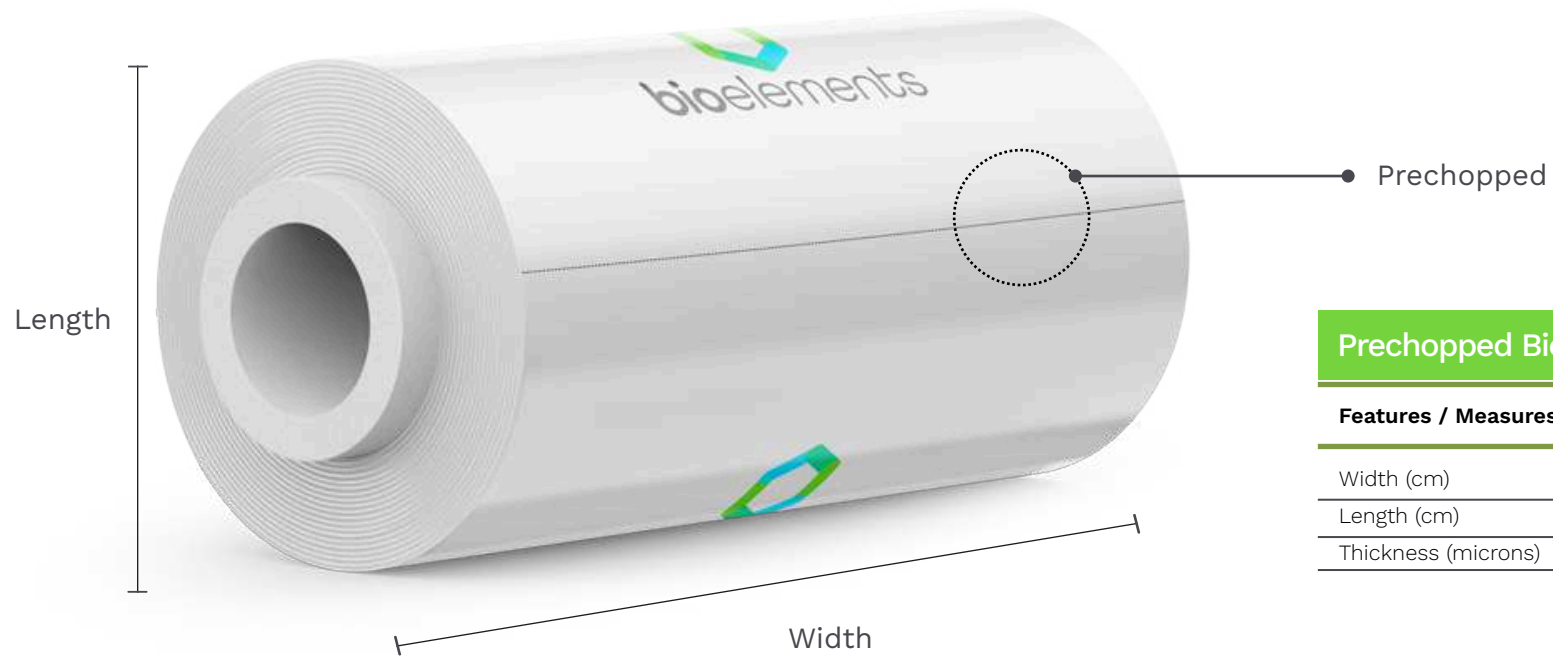
Features / Measures	Minimum	Maximum
Width (cm)	30	80
Length (cm)	40	80
Thickness (microns)	30	100

Colors: Up to six per face

For 6-color printing per side, maximum 65 cm in total length (60+5).

For printing greater than 65 cm long, 2+3 colors per side.

PRECHOPPED BioBag



Prechopped BioBag

Features / Measures	Minimum	Maximum
Width (cm)	20	90
Length (cm)	30	110
Thickness (microns)	13	50

BioFilm

*Ask about our line of BioFilm rolls to use in the inflating machine



Film Bio Bubble

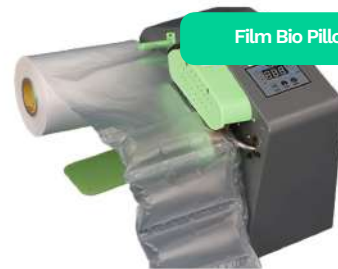


Film Bio Pillowt

In Bio elements we have the possibility for delivery the following **machinery in loan format**. This service includes the **installation, maintenance and parts**.



Film Bio Bubble



Film Bio Pillow



Film Bio for Bio bags

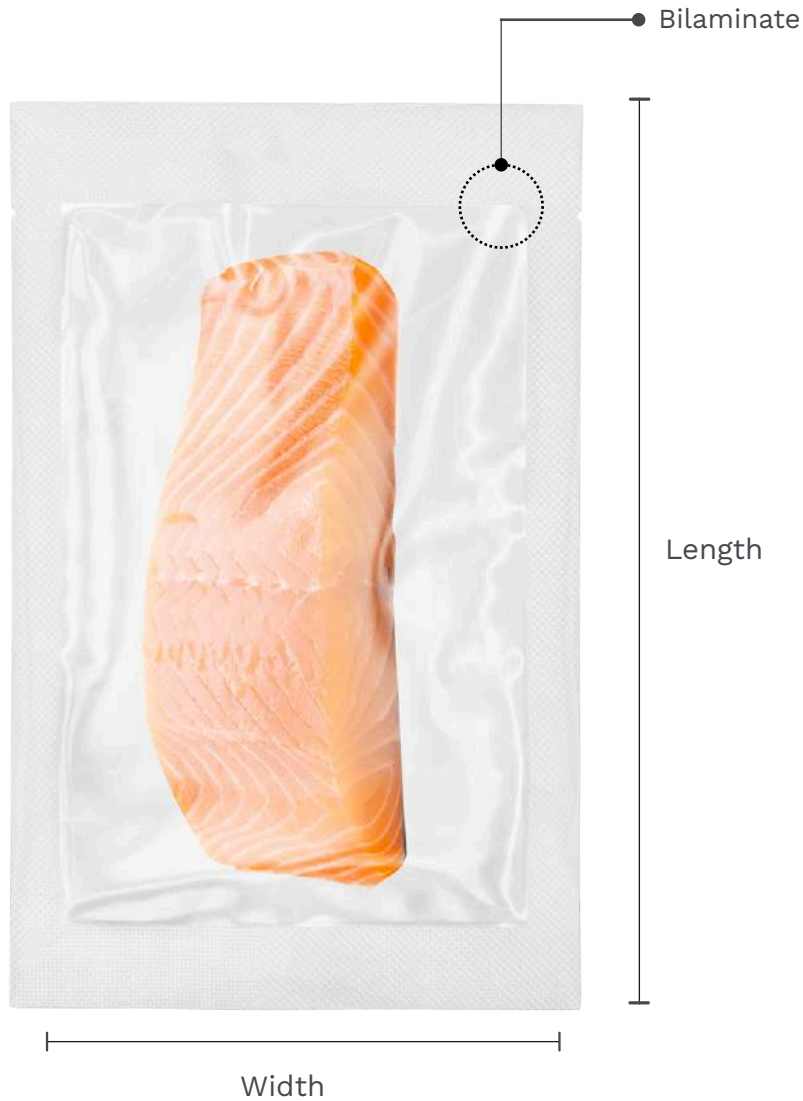
FOOD

WORLD

Bio Packaging for prepared foods:

- ① Our products for prepared foods are an excellent option for food delivery and development of own brands in the disposable category.
- ① Alternative product to conventional plastic with esthetic finishing, soft to the touch, pleasant to smell are some of the category benefits.
- ① These packaging are not bio toxics neither toxic for heavy metals, allowing contact with foods and be managed on optimal security conditions. Besides, they are framed in current environmental provisions.

POUCH BioBag



● Bio E Barrier Structure / Bio E Bilaminate

Pouch BioBag

Features / Measures	Minimum	Maximum
Width (cm)	To measure	To measure
Length (cm)	To measure	To measure
Thickness (microns)	To measure	To measure

*Customizable to **suit and customer needs**

Barrier properties	Value
OTR 23 deg 50% RH @ASTM_D3985	50 cm ³ /m ² /day
WVTR @ASTM_F1249	5,5 g/m ² /day

DOYPACK BioBag



• Bio E Barrier Structure / Bio E Bilaminate

Doypack BioBag

Features / Measures	Minimum	Maximum
Width (cm)	To measure	To measure
Length (cm)	To measure	To measure
Thickness (microns)	To measure	To measure

*Customizable to **suit and customer needs**

Barrier properties	Value
Permeability to oxygen 23 deg 0% RH	130 cm ³ /m ² /day
WVTR 37.7 deg 90% RH	WVTR 37.7 deg 90% RH

WITHOUT BARRIER BioBag



- Materiality Coex Bio E Mono layer

Without Barrier BioBag

Features / Measures	Minimum	Maximum
Width (cm)	To measure	To measure
Length (cm)	To measure	To measure
Thickness (microns)	To measure	To measure

*Customizable to **suit and customer needs**



This product is delivered in **Wicket / Bag format / with or without perforations / with or without bellows.**

Film WITH HIGH BARRIER



- Bio E Top Barrier Structure / Bio E Bio laminate
- Bio E 7 layers Coextruded Bocom Structure/ Bio Barrier

Film with high barrier BioBag

Barrier property	OTR (cc/m2 day)	OTR (cc/100inch2 day)	WVTR (g/m2 day)	WVTR (g/100 Inch2 day)
Top Film	55	3,5	6	0,4
Bottom Film	47	3	5	0,3



FILM WITH BARRIER BioBag



- Bio E Barrier Structure / Bio E Bio laminate

Film with Barrier BioBag

Properties	Values
OTR @ASTM_D3985	108 cm ³ /m ² /day
WVTR @ASTM_F1249	5.5 g/m ² /day

*Customizable to **suit and customer needs**



TWO LAYER BIOFILM Biobag



● Bio E 3 Layers Coextruded Structure / Light Barrier

Two Layer Biofilm Biobag

Properties	Values
Barrera al O ₂ (OTR) [cm ³ /m ² *dia*bar]	Barrera al Vapor de Agua (WTR) [g/m ² *dia*bar]
<2385	<1,81

*Customizable to **suit and customer needs**



SACHET Biobag



- Structure Coextruded 3 layers BioE / Barrier to light

Film Sachet

Features / Measures	Minimum	Maximum
Thickness microns	To measure	To measure
Shrink temperature	To measure	To measure
Dwell time	To measure	To measure

*Customizable to **suit and customer needs**

Barrier properties	Value
OTR @ASTM_D3985	108 cm ³ /m ² /day
WVTR @ASTM_F1249	5,5 g/m ² /day



This product is delivered
in roll format.

NON-BARRIER Film



Materiality Coex BioE Monolayer

Without Barrier

Features / Measures	Minimum	Maximum
Thickness microns	To measure	To measure
Shrink temperature	To measure	To measure
Dwell time	To measure	To measure

*Customizable to **suit and customer needs**

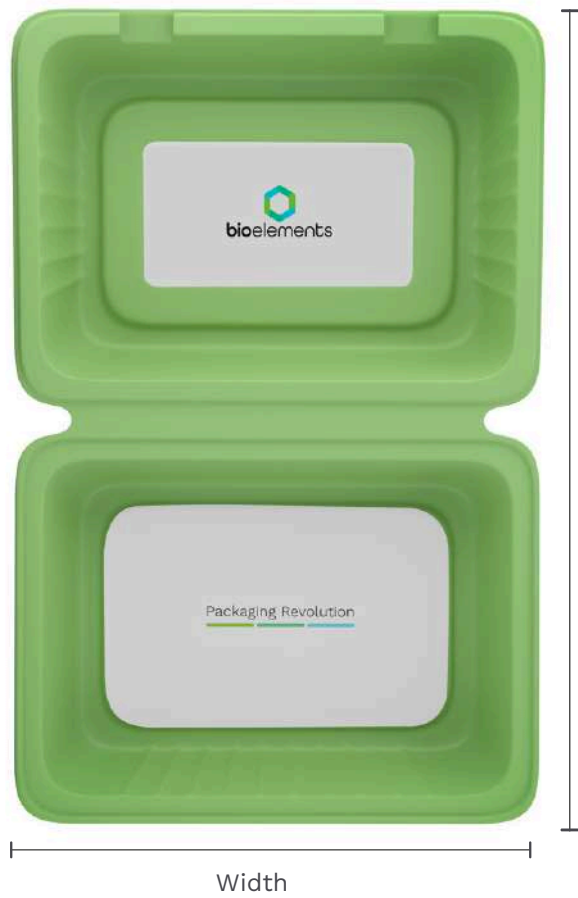


This product is delivered
in roll format.

BIO CLAMSHELL

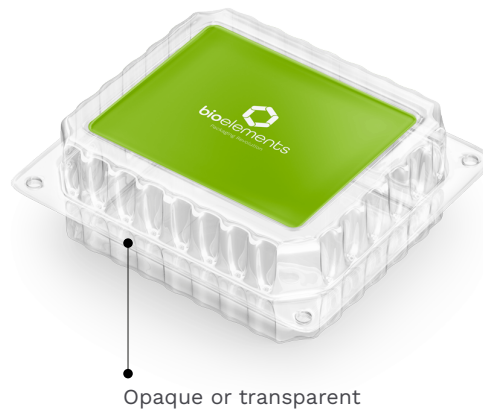


- With internal divisions
- Optimal Sealing
- Firm Bio Packaging
- High Temperatures Resistance
- Does not loose its contact shape with hot foods
- This Bio Clamshell is ideal to be used in delivery for Restaurants, events and more



Length

Width



Opaque or transparent

BioEnvase Clamshell

Name	Measures	Weight
Big Tray	24 x 24 cm	78 gr
Small Tray	16 x 16 cm	38 gr

BioEnvase Clamshell

Name	Spaces	Volume
Big Tray	3	950 cc
Small Tray	--	500 cc

- / 4x4 125 grs (4.4 oz) Blueberries / 4x5 125 grs (4.4 oz) Blueberries
- / 4x5 1/2 print (6 oz) Blueberries / 4x5 1 print (12 oz) Blueberries
- / 5x5 1/2 print (6 oz) Blueberries / 7x5 (18 oz) Blueberries
- / 7x5 1 print flat Blueberries / 7x7 (18 oz) Blueberries
- / 7x7 (18 oz) Blackberries / 7x7 (24 oz) Blueberries
- / 1lb Strawberries / 2lbs H55 Cherries

BIO BOWLS AND CUPS



- Firm Bio Packaging
- High Temperatures Resistance
- Does not loose its contact shape with hot foods
- These bio bowls and bio cups are ideals to be used in delivery for restaurants, events and more.

Bio Bowls and Cups

Name	Measures	Weight	Volume
Big Tray	9 cm diameter	12 gr	350 cc
Small Tray	--	--	300 cc

Note: The images are illustrative, to be reviewed on a case-by-case basis.

BIO PLATES AND CUTLERY



- Firm Bio Packaging
- High Temperatures Resistance
- Does not loose its contact shape with hot foods
- These Bio Plates and Bio Cutlery are ideals to be used in delivery for restaurants, events more.

Bio Plate / Bio Cutlery

Name	Measures	Weight
Big Bio Plate	25 cm diameter	29 gr
Small Bio Plate	23 cm diameter	22 gr
Bio Spoon	14.5 length	--
Bio Knife	16 cm length	--
Bio Fork	15 cm length	--

Note: The images are illustrative, to be reviewed on a case-by-case basis.

non FOOD WORLD

- ◉ Bio products for primary, secondary and tertiary packaging.
- ◉ In any format it can be customized depending on the customer needs.

HEAT SHRINKABLE Biofilm



Materiality: Bio E Resin

Heat Shrinkable Bio Film

Features / Measures	Minimum	Maximum
Thickness (microns)	To measure	To measure
Shrink temperatura	To measure	To measure
Dwell Pme (s)	To measure	To measure

*Customizable to **suit and customer needs**

Properties	Values
Shrink temperature	200 - 230° C
Dwell Bme in oven	7-10 segundos
Sealing Temperature	180-200° C

FILM Biobag



- Materiality / Bio E Coex 3 layers

Film Biobag

Features / Measures	Minimum	Maximum
Width (cm)	To measure	To measure
Length (cm)	To measure	To measure
Thickness (microns)	To measure	To measure

*Customizable to **suit and customer needs**



This product is delivered
in roll format.

BIO BREAST FRONT



Customizable depending on **customer needs**

AGRO

WORLD

- ⦿ Promotes sustainable agriculture and improves crops economical results in reducing the resources and anticipate the harvests.
- ⦿ The development of these agro bio products it adapts to the harvest needs of every customer.
- ⦿ The bio mulch it can be worked and develop depending on customer requirements, such as colors, measures, thickness, among others.



Specifications:

- Does not alter PH
- It reinstates to the ground
- Improves field capacity
- Incorporates organic material
- It helps seed germination
- Labour savings
- Optimization in work times
- Avoid waste accumulation and elimination



bioelements

Packaging Revolution



www.bioelementsla.com