

# PULPAK - BIODEGRADABLE PACKAGING MADE OF CARDBOARD AS ALTERNATIVE TO PLASTIC IN ARGENTINA

PULPAK is a company founded in 2011 in the Tierra del Fuego Province of Argentina, with a triple impact model: economic, environmental and social inclusion. The company has a team of engineers, industrial designers and professionals who have been working for more than 10 years to provide sustainable packaging solutions and bring benefits to the environment.

PULPAK is a unique product. It consists of various packaging models with zero environmental impact, serving as an excellent alternative for the consumer to responsibly dispose of packaging without leaving any trace in the environment, after purchasing a product.

PULPAK is made from cardboard pulp, recycled paper and water, spray-moulded. It is an excellent replacement for plastic (expanded polystyrene), with properties that allow for rapid biodegradation and absorption and protection capabilities even superior to those of other commonly used materials. Furthermore, while plastic packaging takes 100 years to biodegrade, PULPAK decomposes in only 8 - 12 months.

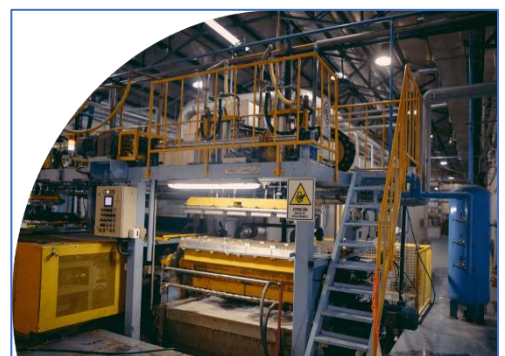
PULPAK is the ideal packaging solution for product protection as an alternative to single-use plastic. PULPAK is innovative, customisable, versatile, sustainable, and environmentally friendly. The material is lightweight, nestable, and also provides the necessary protection for products until their final destination. PULPAK operates within the concept of the Circular Economy.

PULPAK is produced locally, with a design that adapts to the client's needs. It is widely used by the electronics, wine, pharmaceutical, agricultural, textile, and food industries, among others. The Pulpak company conducts tests with renowned laboratories that rigorously ensure that the molded pulp is suitable for protecting even the most delicate and fragile products.

The production line, which uses an advanced Japanese technology, enables the company to manufacture products with a variety of shapes and sizes up to 1.8 meters. The company has a 7,000 m<sup>2</sup> industrial plant in an industrial complex where it uses local raw materials and distributes them throughout the country.

PULPAK's production process involves the following stages: First, the cardboard is received and enters the pulper (similar to a giant blender) where water is added, forming a liquid paste. Then, using a forming machine and a mould, the piece takes shape, it is pressed to remove and recover the water, and, through a drying oven, the excess moisture is removed. Finally, it is verified that the pieces meet their design specifications and they are stored in a nested state.

PULPAK is biodegradable and the end user who purchases a product packed in it can dispose of it without causing harm to the environment. The natural fibres in cardboard and paper degrade in nature. PULPAK



is also recyclable, allowing the end user to dispose of the packaging at the recycling centre, turning it into a new raw material for PULPAK or other recycled cardboard products.

PULPAK has a significant environmental impact. It is made from biodegradable materials, providing a sustainable option from recycled materials. PULPAK has also a high economic impact. It is a product made from a raw material (paper and cardboard) that does not depend on fluctuations in the price of oil. Additionally, its moulding process is developed using 3D matrices, which reduces costs and enables low-volume production. At the same time, it increases efficiency in logistics; as the pieces are hollow, and interlocking, the volume needed to store and transport them is considerably reduced.

In summary, PULPAK products have the following characteristics:

- Economical. They are more cost-effective due to savings in transport and storage.
- Ecological. They are recycled, recyclable, biodegradable and compostable products.
- Efficient. Successfully passing the most rigorous tests Pulpak products are widely adopted for sales in recognized companies, they are more efficient due to their interlocking design, improving logistics in the client's operating lines.

[PULPAK is part of the Ecopulpo family](#) an initiative established in the 1970s in Argentina to create a technological industrial hub in the world's southernmost region: the province of Tierra del Fuego. As a result of this measure, the province is undergoing a development process that is positioning it as an Argentine technological center, specifically in the field of waste management. Ecopulpo seeks to generate positive impacts by reducing the waste generated by its clients' industrial activities, waste that would otherwise end up in a landfill or an incineration process. Currently, the company processes paper, cardboard, plastics, and other materials. It has managed to reinsert 95% of its clients' discarded materials into the production cycle. More than 300,000 m<sup>3</sup> of material passes through its plant for recycling. In this way, many locally manufactured products (such as pipes, hangers, chairs, among others) are produced using this recovered material, thereby avoiding the use of virgin raw materials or petroleum-based alternatives. By reducing the volume of material that is incinerated or sent to landfill, the environmental footprint and greenhouse gas emissions are reduced.

In this context, the company PULPAK, which specializes in the production of cardboard pulp packaging, provides the following benefits in the region:

**Social benefits**

- PULPAK creates employment opportunities, particularly for highly vulnerable social groups, including individuals who previously relied on waste collection for income. Currently, more than 40 people have left this activity of informal waste collection to move into the formal economy in a safe working environment.
- New employees are trained in waste management technologies, from which they were previously excluded.
- The development of the project stimulates the regional economic growth. The company currently has more than 84 suppliers from various sectors, including logistics, consulting, cleaning, security, generating a virtuous economic cycle around its operations.
- Pulpak represents a solution to a social issue concerning waste, helping to raise awareness among the population about the importance of recycling.

**Environmental benefits:**

- Thanks to its innovative model, PULPAK has helped reduce landfill usage in Ushuaia by 38.7%.

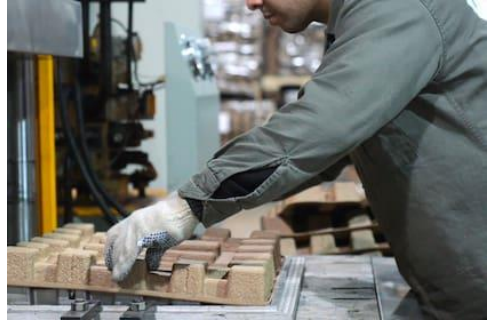


- PULPAK represents a healthy option for the environment, as its biodegradation process takes no longer than 8 months, being an excellent replacement for expanded polystyrene, which takes more than 100 years to biodegrade.
- Currently, the company offers its clients a material recovery rate that exceeds 98%, which allows them to leave practically no trace around their production processes.
- The interlocking nature of Pulpak products enhances a greater logistical efficiency, leading to significant reductions in costs and carbon footprint.



Within the PULPAK value chain, the following actors are identified:

- Companies- they receive recycled products to use as raw material, while responsibly disposing of their own industrial waste.
- Local Governments- they benefit from effective waste management solutions while providing quality employment solutions for individuals outside the formal labour market.
- Former urban waste collectors- they gain dignified employment while simultaneously contributing to waste reduction.
- Consumers- they benefit from 100% recyclable and biodegradable packaging for the products they purchase



[Pulpak has achieved important recognition from organizations](#) that both at international levels and in Argentina promote environmental sustainability and circular economy approaches.



### To know more

[Pulpak website](#)

[Pulpak technology](#)

[Pulpak services](#)

[Pulpak in Facebook](#)

[Ecopulpo website](#)

[Estudios de caso sobre modelos de Economía Circular in EULAC Foundation.org](#)

[Article in surenio.com.ar](#)

[Article in eldiariodelfindel mundo.com](#)

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