NISSHA ecosense

PHARMAPACK By CPHI 2025
Visit us at Booth K24

Pulp Series

Pulp-Injection

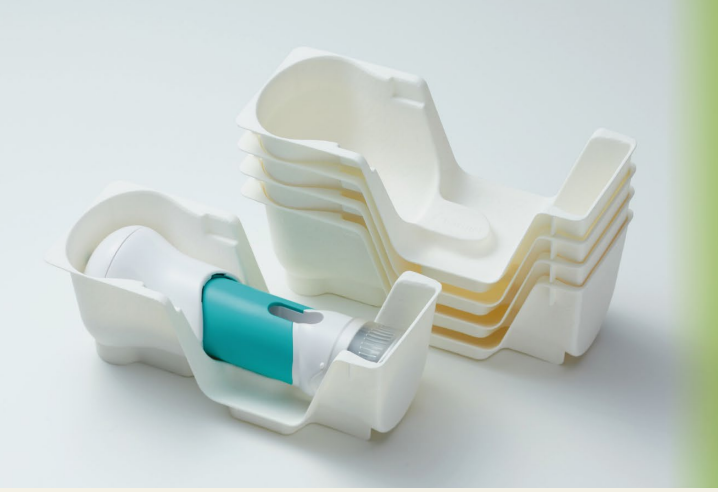
For past decades of years plastic injection molding has been one of Nissha's core businesses gaining a deep knowledge in this technology.
As Nissha had committed to achieve sustainable growth for the company and society, Nissha started to develop a new injection molding technology using pulp instead of plastics.

Pulp-Injection molded products are mainly made from natural origins: pulp, starch and water. Thanks to the unique material composition, the final products have a silky touch texture, and they are disposable in wastepaper bins.

Pulp-Injection can achieve complex designs with high dimensional accuracy while keeping good mechanical strength. Stackable and nestable designs to reduce total packaging volume are achievable.

Nissha offers full service:
Product design & feasibility study, prototyping and mass production in Central Germany.

https://ecosense.nissha-europe.com/



Product examples

Primary Packaging
- Components of self-injection-devices
- Plunger rods
- Bottle closures

Secondary Packaging
- Trays for autoinjectors and ampoule cases

Complex and precise product design
Pulp-Injection can achieve similar design to existing rigid plastic packaging.

Paper recyclability
Pulp-Injection packaging is recyclable in the paper recycling system in proportions up to 10% (PTS RH:021/97:2012).

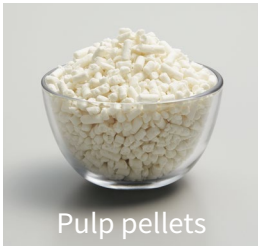
High rigidness and impact strength
Thin wall design contributes minimization of packaging size while keeping high protection.

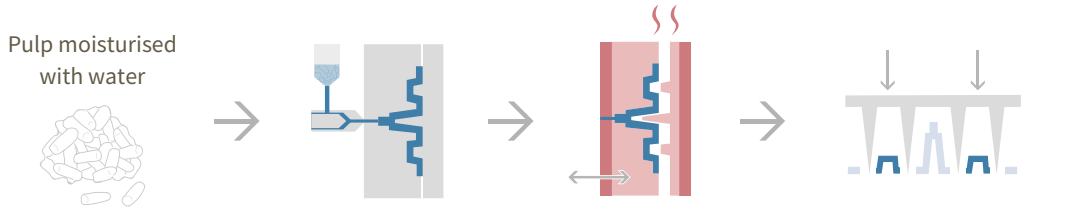
Reduction of plastic usage
Pulp-Injection is made mainly from pulp and starch. It reduces usage of plastic and the carbon footprint.

Process and material properties

The material is mainly made of pulp, starch and water.
Products are formed by injection molding and dried in a cavity.

molding process





	Industrial plastics		NISSHA
	Polystyrene	Polypropylene	Pulp-Injection material
Specific gravity	1.05	0.9	**0.85**
Impact strength (Mpa)	6	6.6	**11.5**
Tensile strength (%)	28	19	**29**
Flexural property (Mpa)	40	80	**8.5**
Bending strength (Mpa)	47	33	**24.5**
Bending elasticity (Kj/m2)	2,500	1,200	**2,900**

Maximum size (mm)	300×300×50	**Minimum radius** (mm)	0.5	**Standard thickness** (mm)	0.6 ~ 1.0

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