

Brief Introduction to Non-GMO PLA mesh *NeoSoilon®*

How it is made?

NeoSoilon® is a kind of woven mesh filter made from PLA resin that derived from sugarcane, natural origin. It can be composed and biodegraded completely by microorganisms in soil via hydrolysis. It is designed for safe and non-toxic filter to be environment-friendly and better for the human future.

Poly lactic acid (PLA) polymer resin is made by lactic fermentation derived from sugarcane, by enzymes and polymerization. By thermal polymerizing of lactic acid, an aliphatic polyester resin having melting point around 170°C. Due to its plastic character, PLA can be melt-spun into fibers (filaments), which are woven for beverage filter media.

Advantages

1. Made of 100% PLA filaments from sugarcane. It is 100% bio-based and biodegradable*.
2. Suitable for various leaf teas because of its excellent permeability.
3. Contained no hazardous substances such as endocrine disruptors (environmental hormones)
4. Completely biodegraded when disposed in soil under good condition.
5. No generation of hazardous gases such as dioxin when burnt decomposed into CO_2 and water.
6. The raw material of PLA resin originate from GMO free green crops – sugarcane.
7. Recyclable and environment-friendly, complies with international standards of industrial compost.



Physical Properties

Product Number	Mesh Count Filaments / inch	Opening ratio	Remarks	Sealing Adaptability
SGF2	89	63%	Transparent Type Environmental Corresponding	Ultrasonic Seal

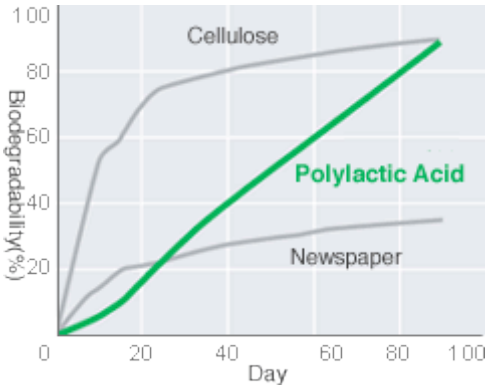
* Material: 100% Poly lactic acid
* The above physical properties are measured, but not guaranteed, are subject to change.

Non-GMO source and Sustainable

We care about the sustainability not only for our product but also for our upstream raw materials. Efforts are made to source the sugar needed to make lactic acid in a sustainable way. Thai sugarcane, which are always GMO-free crops, are used as feedstock for the production of lactic acid, that is in turn used to make PLA bioplastics. *Neo-Soilon®* is certificated by Non-GMO project, made it as the first choice packing material for organic tea, allowing for completely certified organic tea products.

Compostability and Biodegradability

NeoSoilon® can be decomposed rapidly when it is put into compost of organic material but quite slowly when it is used in usual circumstances. It comply with the European Standard EN 13432, the international standard ISO 17088 and also American Standard ASTM D6400, which means that 90% of its weight can biodegrade within 180 days within industrial composting conditions (approx. 58°C or 140°F). The degradation depends on various condition of temperature, moisture and alkaline material, and the mesh will completely degraded by acceleration of microorganism after some rate of degradation. The time required for form collapse is approx. 3 ± 0.5 years in soil or water, depends on different environment.





Throughout our communications, unless otherwise specified, the terms *bio-based* and *compostable* or *biodegradable* refer to EN16785-1 and EN13432 standards respectively. It is the responsibility of the article producer to ensure that claims on final products are suitable for your local laws and decrees. Check your locally available end-of-life infrastructure to ensure that legitimate end-of-life claims are made on the final product.

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