Brief Introduction to Biodegradable Filter Mesh

How it is made?

The biodegradable filter mesh "SOILON" is a woven mesh filter derived from corn starch, natural origin. It can be 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.

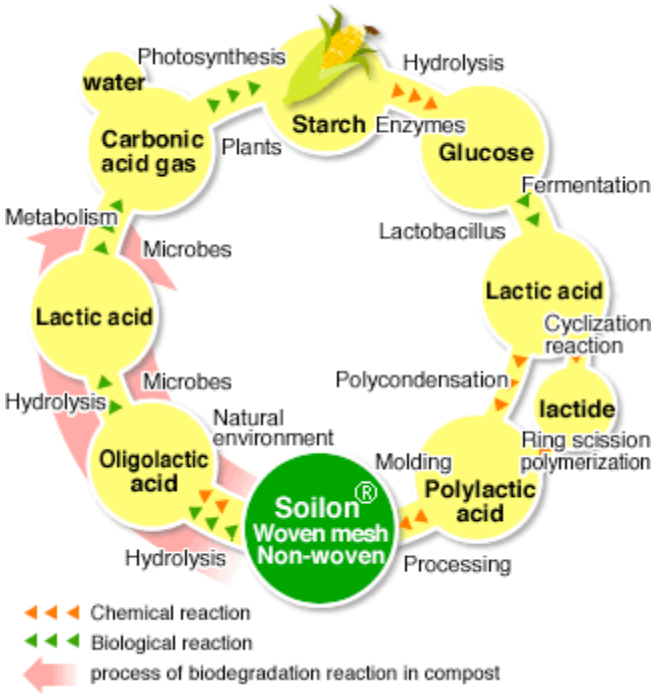
It is made of poly lactic acid (PLA) polymer resin by lactic fermentation of glucose, derived from starch (such as corn), by an enzyme and polymerization. By thermal polymerizing of lactic acid, an aliphatic polyester resin having melting point of 170 C and 57C second order transition point respectively is gotten. Due to its plastic character, PLA can be melt-spun into fibers (filaments), which are woven for beverage filter media.

Advantages

1. Made of poly-lactic acid filaments from corn starch. Suitable for various leaf teas because of it's excellent permeability.
2. Contained no hazardous substances such as endocrine disruptors (environmental hormones)
3. Completely biodegraded when disposed in soil.
4. No generation of hazardous gases such as dioxin when burnt Decomposed into carbon dioxide and water.
5. Antibacterial and antifungus.
6. Recyclable and environment-friendly products acquired the "GreenPla" Mark.

"GreenPla" is a registered trademark of the Japan BioPlastics Association (JBPA), which is a N.P.O. engaging in study, research and development to promote commercialization of plastics which are made from non-petroleum resources, and are biodegraded. More details can be found in JBPA homepage (http://www.jbpaweb.net/english/english.htm)

Biodegradation of PLA



Physical Properties

Product Number	Mesh Count Filaments / inch	Opening ratio	Remarks	Sealing Adaptability
SLA1	97	62	Transparent Type Environmental Corresponding	Ultrasonic Seal

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

Bio-degradation rate

The biodegradable mesh can be decomposed rapidly when it is put into compost of organic material but quite slowly when it is used in usual circumstances. The degradation is initiated by temperature, moisture and alkaline material and is completely degraded by acceleration of microorganism after some rate of degradation. The time required for form collapse is approximately 5 ± 3 days when it is kept in compost and approximately 3 ± 0.5 years in soil or water.