



Polyinks[®]-PCL Filament 50 g

Catalog Number: IR-201

Overview

Poly(ϵ - caprolactone)(PCL) is a biodegradable polyester with a low melting temperature of around 60 °C. PCL has been widely used in a variety of applications in tissue engineering and regenerative medicine. This is likely due to the prior history of receiving FDA approval for multiple clinical applications, including drug delivery devices, sutures and adhesion barriers.

PCL is degraded by hydrolysis of its ester linkages in the human body, but the rate of degradation is much slower than that of poly-lactide or -glycolide. Recently, PCL has been increasingly used for 3D bioprinting applications due to its low melting temperature for easy delivery through a fine nozzle, strong adhesive properties between the deposition layers. Moreover, dispensed PCL readily forms and maintains 3D structures with durable structural integrity.

InnoRegen' Polyinks[®]-PCL filament is a research grade polymer that has been shown to dispense easily, and facilitates building of 3D structures using a commercially available 3D printer. The dispensed PCL shows excellent adhesion between printed layers, leading to a durable tissue construct. For applications involving the use of cells, the Polyinks[®]-PCL filament is best used with our gelatin-based Gel4Cell[®]bioink products.

Specifications

- 1.75 mm filament
- 50g spooled
- Research-grade



Storage & Handling

Polyinks[®]-PCL filament should be stored at ambient temperature in a dry place such as a desiccator. For a long-term storage, we recommend keeping the Polyinks[®]-PCL filament in a cool, dry and dark place until use. InnoRegen, Inc. is not responsible for the deterioration caused by negligence of the consumer's improper storage.

Recommended Printing Conditions

To obtain the best printing results, we recommend keeping the printer in a room with no drafts and minimal temperature fluctuation. The printing temperature recommended to achieve optimal results is 80°C~180°C, depending on the type of 3D printer used.

Caution

This product is for research use only. It is not approved for use in diagnostic or therapeutic procedures.

For additional support, visit www.innoregen.com or E-mail info@innoregen.com