

DegraPol[®] polymers



DegraPol is a biocompatible polyester urethane-based polymer with customizable biodegradability, widely used in research and product development for medical applications.

Thanks to its mechanical and elastic proprieties it's ideal for:

- Implantable devices that require controlled degradation (vascular and valve prostheses)
- Tissue engineering
- 3D scaffolds for cell growth
- Drug delivery matrices
- Microparticles

While DegraPol, like other biodegradable polymers, experiences mechanical degradation under mechanical stress, its primary degradation mechanism is chemical hydrolysis.

Technical features

Family	Polyester urethane
Formula	Copolymer of hydroxybutyric acid (HB) and caprolactone (CL)
Biocompatibility	The product successfully passed all relevant biological evaluations for implant as required by ISO 10993, including tests for cytotoxicity, sensitization, intracutaneous reactivity, acute systemic toxicity.
Appearance	White powder
Biodegradability	By hydrolysis
Modular degradation time	DegraPol polymers: <ul style="list-style-type: none"> • DP0 more than 120 months • DP4 about 18 months • DP15 about 3 months • DP30 about 1 month
Solubility	Freely soluble in chlorinated solvents like methylene chloride, chloroform and soluble in dioxane. Insoluble in water.
Molecular Weight	40-80 kDa (indicative range)
pH	Neutral
Processing techniques	Processable using conventional techniques such as electrospinning and solvent casting

Storage

Water sensitive; should preferably be kept dry and protected from light.

Can be used and transported at room temperature (preferably < 25°C).
For long-term storage, keep at -20°C.

Degrapol powder can be used only for research. Under no circumstances shall the Customer use the Material for the treatment, diagnosis, or any other evaluation of human patients without prior written notification to ab medica. ab medica shall not be held liable for any use of Degrapol powder that occurs without such prior notification or that deviates from the intended research or investigational purposes.

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