

**For personalized, high resolution  
bioresorbable 3D printed implants**

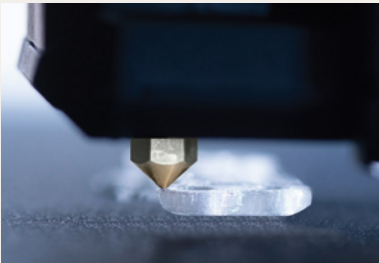
Flexible properties and degradation times for FFF

**Resomer<sup>®</sup>**  
Filament



## A line of high-quality filaments with tight specifications

RESOMER® Filaments are ideal for high-resolution printing with Fused Filament Fabrication (FFF)/Fused Deposition Modeling (FDM) systems. PLLA, PLGA, PCL, and PDO-based grades are available with tight specifications including a 1.75 mm diameter size and precise processing temperatures for the nozzle, bed and chamber. All filament grades are provided coiled in a spool package size of 50 grams.



Filament Grade Characteristics	RESOMER® Filament L D1.75	RESOMER® Filament LG D1.75	RESOMER® Filament C D1.75	RESOMER® Filament X D1.75
Composition	Poly (L-lactide)	Poly (L-lactide-co-glycolide) 85:15	Poly (caprolactone)	Polydioxanone
Degradation time*	> 3 years	1 – 2 years	> 2 years	< 6 months

\*Degradation time estimated based upon raw material data

## The versatility and reliability to meet your specific needs

Mechanical properties such as strength and elongation can be tailored to the target application, with degradation times ranging from less than six months to more than three years. Multiple customization options are available upon request.

Leveraging more than 30 years of safety, biocompatibility and supply security, RESOMER® Filaments are ideal to create high-quality, 3D printed devices for use in application areas including cranial reconstruction, orthopaedics and dentistry.

## Application technology services create additional value

Evonik’s Medical Device Competence Center in the U.S., and application labs in Germany and China, provide a wide range of services for 3D printing with multiple technologies including Selective Laser Sintering (SLS) and FFF. Areas of customer support include material selection and customization, feasibility samples, process development, analytical characterization, mechanical testing and degradation studies.



Color of implant prototype used for illustrative purposes only



This information and all further technical advice are based on our present knowledge and experience. However, it implies no liability or other legal responsibility on our part, including with regard to existing third party intellectual property rights, especially patent rights. In particular, no warranty, whether express or implied, or guarantee of product properties in the legal sense is intended or implied. We reserve the right to make any changes according to technological progress or further developments. The customer is not released from the obligation to conduct careful inspection and testing of incoming goods. Performance of the product described herein should be verified by testing, which should be carried out only by qualified experts in the sole responsibility of a customer. Reference to trade names used by other companies is neither a recommendation, nor does it imply that similar products could not be used.

**Evonik Operations GmbH**  
Health Care Business Line  
Medical Devices Solutions

Kirschenallee | 64293 Darmstadt  
Germany

Phone +49 6151 18-4019  
Fax +49 6151 18-3520

healthcare@evonik.com  
www.evonik.com/healthcare