



Implantable Polymer Applications

Foster Corporation

is a market leading provider of specialized polymeric solutions for the medical device industry. Our customized polymers support critical applications, including FDA registered Class II and Class III devices and implants. Foster provides implantable polymer functionality through twin screw and single screw compounding techniques.

Our dedication to serving critical device applications, such as polymers for a long-term and permanent implants is indicative of our unmatched polymer and process capability and support infrastructure.



IMPLANTABLE POLYMER CAPABILITIES

Foster's capabilities regarding implantable polymer solutions includes the following:

Processing Capability

Class 7 (10,000) clean room

27mm twin screw extruder

¾" single screw extruder

Loss-weight-feeders

Pelletization (customizable)

Air & water cooling

Medical Plastics Innovation Center & Developmental Services

R & D lots to production scale up

Formulation development

Feasibility – small batch production

Process development

GMP trials

Validation

Finished property testing

Direct extrusion forms and shapes

- Rods
- Fiber
- Tubing
- Co-extrusion
- Film
- Pellets



IMPLANTABLE MATERIAL CAPABILITY AND EXPERIENCE

Foster is experienced in working with the following implantable materials:

Durable Implantable Materials

- PEEK
- PAEK
- Polysulfones
- Polypropylene
- Thermoplastic polyurethane
- Polyethylene
- Others

Non-Durable Bioabsorbable Implantable Materials

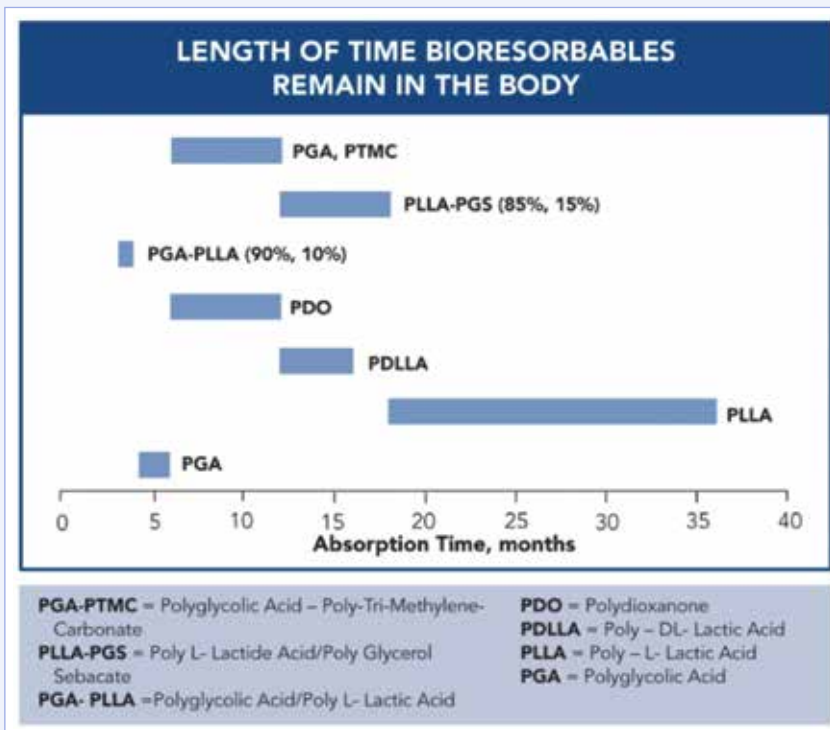
- Poly(lactides)(PLA)
- Polyglycolides(PGA)
- Poly(lactide-co-glycolides)(PLGA)
- Polycaprolactone(PCL)
- Alloys of the above

Polymer Enhancements and Functionality

- Osteoconductivity
- Pre-colored
- Radiopaque filled
- Antimicrobial
- Reinforcement
- Active pharmaceutical ingredients(API's)
- Other as needed

PERMANENT IMPLANT APPLICATIONS

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|---|--------------------------------------|
| Sutures | Biodegradable stents |
| Dental devices | Bone and tissue engineering |
| Orthopedic fixation (metal replacement) | Spinal cages |
| Controlled drug delivery | Cosmetic surgery: thread lift |
| Tissue fixation | Wraps to hold tissue masses in place |
| Bone screws, etc. | Etc. |





Foster Corporation

45 Ridge Road, Putnam, CT 06260
PH: 860.928.4102 FX: 860.928.4226
www.fostercomp.com