Bioabsorbable Sutures, Yarns, and Resins

We can take your project from resin to yarn to component to suture to device

Bondek® Plus and Monodek® sutures

PGA, PGLA, and PLLA multifilament yarns

PGA and PLLA resins

Work With The Experts™
We Create Customized Solutions Using Bioabsorbable Materials

WE TURN IDEAS INTO PRODUCTS
If the development of bioabsorbable components or sutures is your plan, you should partner with Teleflex Medical OEM. We are one of the world’s few, vertically integrated, suture and yarn producers with the expertise and resources to customize product performance characteristics. Our ability to take your project from resin to yarn to component to suture to device makes us a true single source solution.

In terms of bioabsorbable yarns, Teleflex Medical OEM offers three material options — PGA, PGLA, and PLLA — all with outstanding strength and denier characteristics. In addition, we can also develop new co-polymer compositions based on absorption rate requirements.

Compounding is our specialty. The Teleflex Medical OEM team can make custom blends and compounds with different additives for characteristics such as anti-microbial, increased lubricity, and radiopacity.

PARTNER WITH OUR EXPERT TEAM
Our highly-qualified engineers, material and polymer experts, and skilled technicians make Teleflex Medical OEM stand above the rest. Whatever your project demands, we have a spectrum of world-class talent to draw from. We can polymerize, extrude, and braid in-house, and develop unique compounds.

EVERYTHING FOR YOUR SUCCESS
Vertically integrated capabilities. Deep expertise. Decades of experience. We are ready to take on your project with our extensive, in-house resources ensuring efficiency and confidentiality. Our services include:

- Compounding
- Engineering
- Material selection and formulation
- Design for manufacturability
- Prototyping
- Testing and validation
- Regulatory support
- Manufacturing
- Finishing operations
- Packaging
- Private labeling
- Sterilization

LET’S GET TO WORK ON YOUR PROJECT
- Phone: 1.800.474.0178 or 1.508.964.6021
- Email: oeminfo@teleflex.com
- Web: www.teleflexmedicaloem.com
multifilament yarns

PLLA YARN
Slow Absorbing. Consistent Loss of Tensile Strength Over Time.

- Material: Poly-L-lactic acid (PLLA), 100% PLLA
- Longer-term, bioabsorbable yarn retaining 50% of tensile strength at 48 weeks. Actual time depends on processes and geometric formation of final device.
- Tensile strength: ≥ 245 g (75 denier), ≥ 391 g (120 denier), ≥ 1768 g (540 denier)
- Color: White (undyed)

<table>
<thead>
<tr>
<th>Color</th>
<th>Filament Count</th>
<th>Denier</th>
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<td>White</td>
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PGLA YARN
Fast Absorbing. Co-Polymerized Material Option.

- Material: Polyglycolic acid-co-poly-L-lactic acid (PGA/PLLA), 89-93 mol% PGA-co-7-11 mol% PLLA
- Short-term, bioabsorbable yarn retaining 50% of straight tensile strength at less than 14 days. Actual time depends on processes and geometric formation of final device.
- Tensile strength: ≥ 265 g
- Color: Beige

<table>
<thead>
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<tr>
<td>Beige</td>
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SPECIFICATIONS FOR MULTIFILAMENT YARNS

<table>
<thead>
<tr>
<th>Property</th>
<th>Units</th>
<th>PGA</th>
<th>PGLA</th>
<th>PLLA</th>
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<tbody>
<tr>
<td>Material</td>
<td>%</td>
<td>100</td>
<td>92.8</td>
<td>100</td>
</tr>
<tr>
<td>Linear Density</td>
<td>Denier</td>
<td>15-144</td>
<td>56</td>
<td>75-160</td>
</tr>
<tr>
<td>Multifilaments</td>
<td>Number</td>
<td>6-48</td>
<td>28</td>
<td>30</td>
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<tr>
<td>Denier/Filament</td>
<td>DPF</td>
<td>2.5-3.0</td>
<td>2.0</td>
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<tr>
<td>Tenacity</td>
<td>Grams/Denier</td>
<td>≥ 5.5</td>
<td>≥ 5.1</td>
<td>≥ 3.4</td>
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<tr>
<td>Elongation at Break</td>
<td>%</td>
<td>15-30</td>
<td>10-35</td>
<td>20-35</td>
</tr>
<tr>
<td>IV</td>
<td>dL/g</td>
<td>≥ 0.80</td>
<td>≥ 1.16</td>
<td>≥ 1.30</td>
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<tr>
<td>In Vitro 50% Tensile Strength Loss</td>
<td></td>
<td>≈ 2 Weeks</td>
<td>≈ 2 Weeks</td>
<td>≈ 48 Weeks</td>
</tr>
<tr>
<td>Colors</td>
<td></td>
<td>Beige (undyed)</td>
<td>Beige (undyed)</td>
<td>White (undyed)</td>
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</tbody>
</table>

- Custom deniers are available upon request.
- Yarns are wound on tubes. The standard quantity of yarn per tube is 100 grams per tube.
- Yarns are coated with a water washable spin lubricant. The formulation is available to customers on request.
PGA YARN
Fast Absorbing. 20+ Year History of Clinical Application.

• Material: Polyglycolic acid (PGA), 100% PGA

• Short-term, bioabsorbable yarn retaining 50% of tensile strength at less than 14 days. Actual time depends on processes and geometric formation of final device.

• Tensile strength: ≥ 77 g (15 denier), 231 g (45 denier), 462 g (90 denier), 657 g (128 denier)

• Colors: Beige (undyed), violet, and light violet

<table>
<thead>
<tr>
<th>Color</th>
<th>Filament Count</th>
<th>Denier</th>
<th>Part Number</th>
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<td>90</td>
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<tr>
<td>Light Violet</td>
<td>36</td>
<td>90</td>
<td>159413</td>
</tr>
</tbody>
</table>

PGA RESIN

• Material: Polyglycolic acid
  • Bioabsorbable material provided in precise, uniform pellets
  • Colors: Beige (undyed) and violet
  • Qualified to ASTM Standard F2313-10
  • Standard IV (0.100 g/dL, HFIP, 30°C): 1.10-1.20 dL/g
  • Tm: ≈ 223°C
  • Max H2O: 0.05%
  • Moisture-barrier packaging
    Important: Please store frozen until needed

PLL RESIN

• Material: Poly-L-lactic acid
  • Bioabsorbable material provided in precise, uniform pellets
  • Colors: White (undyed)
  • Qualified to ASTM Standard F1925-09
  • Standard IV (0.100 g/dL, chloroform, 30°C): 1.50-1.80 dL/g
  • Tm: ≈174°C
  • Max H2O: 0.05%
  • Moisture-barrier packaging
    Important: Please store frozen until needed

Phone: 1.800.474.0178 or 1.508.964.6021
Email: oeminfo@teleflex.com
Web: www.teleflexmedicaloem.com
BONDEK® PLUS SUTURE

- This suture offers outstanding smoothness, lubricity, and knotability. It has high, initial tensile strength during the critical wound healing period; then it breaks down evenly and predictably.
- Material: Polyglycolic acid (PGA)
- Construction: Braided
- Coating: Polycaprolactone copolyglycolic acid
- Indications: Bondek® Plus suture is cleared by the FDA for use in general soft tissue approximation and/or ligation, including use in ophthalmic procedures, but not for use in cardiovascular or neurological procedures.
- Sizes: USP 2 through 8-0
- Colors:
  - Violet (colorant: D&C violet #2)
  - Beige (colorant: none)
- Sterilization: Ethylene oxide (EtO)
- Configurations:
  - Non-sterile spools
  - Sterile packages
  - Chemical resistant
  - Veterinary cassettes

MONODEK® SUTURE

- Smooth, secure suture with a low risk of wicking. Monodek® suture retains its initial wound healing tensile strength with 70% at two weeks, 50% at four weeks, and 25% at six weeks.
- Material: Polydioxanone (PDO)
- Construction: Monofilament
- Coating: None
- Indications: Monodek® suture is cleared by the FDA for use in all types of soft tissue approximation, including use in pediatric cardiovascular tissue where growth is expected to occur and in ophthalmic surgery. The suture is not indicated for adult cardiovascular tissue, microsurgery, and neural tissue.
- Sizes: USP 0 through 6-0
- Color: Violet (colorant: D&C violet #2)
- Sterilization: Ethylene oxide (EtO)
- Configuration:
  - Monodek® suture is only available as a sterile finished good. It is NOT available as a non-sterile product or on a spool.
  - Sterile packages

WE CAN CREATE THE CUSTOMIZED SOLUTION FOR YOUR PROJECT

When it comes to custom-engineered sutures and yarns, Teleflex Medical OEM is a global leader. We have the extensive, in-house capabilities and deep expertise to be the single source solution for your project.

- Teleflex Medical OEM can take your project from resin to yarn to component to suture... all accomplished in-house
- Development of new co-polymer compositions based on your absorption rate requirements
- Custom blends and compounds to achieve your specifications for antimicrobial ability, lubricity, and radiopacity
- Variety of patterns and colors available
- Custom PIC counts and deniers
Bioabsorbable Sutures, Yarns, and Resins

We can take your project from resin to yarn to component to suture to device

Bondek® Plus and Monodek® sutures

PGA, PGLA, and PLLA multifilament yarns

PGA and PLLA resins

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