

Mechanical Testing Capabilities

The Materials Engineering Laboratory of Imperia Engineering Partners is equipped with an Instron 5985 Electrical Mechanical 250kN test frame for: **Tensile**, **Compression**, **3 or 4 Points Bending**, **Cyclic Fatigue**, **Peel**, **Burst**, **Stress Relaxation Test**, and more.

Some highlights of Imperia's Materials Engineering Laboratory capabilities:

- Computer controlled testing
- Custom fixturing for standard or non-standard sample and component testing.
- Numerous load cells range from 250g to 250kN
- Environmental Chamber: -50 to 600 °F
- Oversize testing space for test frame
- Programmable data acquisition system
- All ranges of materials can be tested. Some examples:
 - Metals: steel, aluminum, titanium, etc.
 - Composites
 - o Polymers
 - Biological materials
- Component testing:
 - Electrical board
 - o Springs
 - \circ Hard hats
 - Bolt testing
 - Electrical insulator
 - o Etc.









For inquiries, please contact:

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Some Examples

Comparative evaluation of Surgical Sutures strength loss in a rat model through 28 days implantation. Testing results supported an FDA 510k submittal.







Preclinical evaluation for FDA 510K submission: Evaluation of Hernia Repair material performance over time in animal model.



