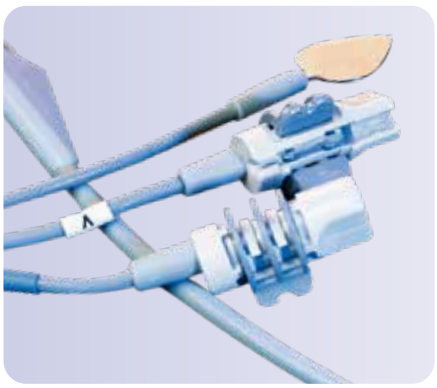
SILICONE MOLDING

The Benefits of Silicone

Silicone offers many benefits when used for medical device components. The material has more grip, a tactile feel and is highly durable. Silicone is also biocompatible, has low toxicity levels, and can easily be sterilized and autoclaved. Hence, it is perfectly suited for clinical environments.

Silicone also works in a wide temperature range, is chemically inert and can be coated. It comes in a range of durometers, from soft to hard, depending on its use and required impact resistance.



World Class Engineering

Technical Services for Electronics (TSE), a brand of Paragon Medical offers both

- **Liquid Silicone Rubber** (LSR) **Molding**
- **Silicone Transfer Molding** (STM).

Both are used to produce a wide range of components and products for the medical device industry.

Applications include:

- Catheters and tubing
- Connectors
- Handles or grips for surgical instruments
- Programming antenna for cardiac rhythm management
- Interconnect identifiers

The Silicone Molding processes:

Each molding process offers specific benefits.

- **LSR Molding** is primarily suited for fast, high-volume production, ideal for components that are less sensitive to pressure or impact.
- **Silicone Transfer Molding** is a more slow and gentle process, especially suited for overmolding highly sensitive electronics such as PC boards, and delicate cables.

An experienced engineering team and the right technology are critical for these processes to deliver a high-quality product.

LSR and Silicone molded components are used by medical experts in a variety of surgical procedures, and are created to provide optimal performance and adaptability.

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Flexibility as competitive advantage

TSE has the expertise and technology to offer both LSR and Silicone Transfer molding processes as a single assembly; inhouse, under one roof and fully integrated.

Deron Singer, Director Engineering & Technology explains: "With our breadth of offering, we are truly unique in the market. Not many of our competitors overmold sensitive electronics due to the risk of damaging delicate electronics. However, our engineers have the in-depth knowledge and expertise required in working with Silicone materials."

> *"Understanding the biocompatibility, resistance, and versatility of these materials allows us to pick the perfect material for different custom components and projects."*

Deron Singer,
Director Engineering & Technology

TSE also offers a third low-cost option which is **Low Pressure Molding** of polymers, a molding process that can achieve complex geometrics for encapsulated component requirements.

TSE delivers cutting-edge products with a strong emphasis on innovation.

Quality Assurance

TSE's molding expertise is founded on more than 40 years of experience, and continues to set the standard for LSR (Liquid Silicone Rubber) and Silicone Transfer Molding solutions in the industry.

With TSE's unwavering commitment to quality, rigorous quality control processes are adhered to throughout the manufacturing journey. Each component undergoes inspection and testing to ensure it meets the highest standards of performance, accuracy, and reliability. Our quality management systems are ISO 13485 certified, highlighting our dedication to delivering safe and effective medical devices.

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