



Drug-Elution Technologies

DRIVING THE DEVELOPMENT OF LONG-ACTING DRUG DELIVERY AND COMBINATION PRODUCTS



Trelleborg Healthcare & Medical partners with medical device and pharmaceutical companies to develop innovative drug-eluting technologies that result in more effective therapies and improved patient lives.

Drug-eluting technologies provide controlled, targeted delivery of active pharmaceutical ingredients (APIs) to patients. Successful drug-eluting products demonstrate promising outcomes by extending drug release windows and minimizing drug side effects through lowered and consistent dosage. We excel in developing a solution for any application, whether delivering steroidal, hormonal, antimicrobial or other compounds.

Developing these therapies is complex due to formulation challenges that can lead to long development times. Our knowledge of polymers, formulation methods, and manufacturing processes enables us to partner with customers to achieve successful drug-eluting therapies faster.

Excellence in Drug-Eluting Polymer Manufacturing

We understand that precision and reliability are non-negotiable. Our team of expert engineers and materials scientists bring years of technical experience to every project. From concept to marketed product, we employ cutting-edge capabilities and adhere to the highest industry standards, ensuring superior performance of devices that surpass expectations.

Innovating for Better Patient Outcomes

Our drug-elution expertise is instrumental in advancing treatment options and patient outcomes across a wide range of medical specialties:

- Contraceptives and women’s health
- Ophthalmic treatments
- Oncology
- Ear, nose and throat (ENT)
- Cardiovascular devices
- Neuroscience
- Gastroenterology

Contact Us





Looking for a partner for your next project involving a drug-eluting component? Reach out to Trelleborg Healthcare & Medical to learn how we can support you.

www.trelleborg.com/healthcare/contact-us

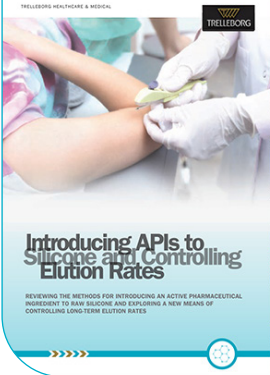


DRUG-ELUTION TECHNOLOGIES

Our Expertise

 <p>Polymer Material Selection</p>	<p>Our vast knowledge of polymers enables us to specify the optimal material for your drug-eluting application, ensuring compatibility, stability, and efficacy. Options include:</p>	<ul style="list-style-type: none"> • Liquid silicone rubber (LSR) and high consistency rubber (HCR) compounds • Bioresorbable polymers, such as poly lactic-co-glycolic acid (PLGA) and polyethylene glycol (PEG) • Thermoplastic elastomers
 <p>Advanced Manufacturing Processes</p>	<p>We can produce components in an unlimited range of shapes and sizes using advanced manufacturing processes:</p>	<ul style="list-style-type: none"> • Injection molding for customized geometries • Extrusion, for simple, cost-effective geometries • Sheeting, when additional surface area provides advantages
 <p>Innovative Formulation Methods</p>	<p>Our experienced team excels in formulating APIs into products enabling precise drug delivery control, using different methods:</p>	<ul style="list-style-type: none"> • Mix and manufacture, the most used method, mixes the drug and polymer material prior to processing • Immerse and impregnate introduces the drug after polymer components are manufactured • Membrane application for additional control of the drug release
 <p>Scalability</p>	<p>Once a product concept has been developed, our expertise in manufacturing can be used to scale up the production process and ensure:</p>	<ul style="list-style-type: none"> • Consistent quality with state-of-the-art equipment and processes • Timely delivery of the product when, where and the way it is needed • Market readiness

Whitepaper



Introducing APIs to Silicone and Controlling Elution Rates

REVIEWING THE METHODS FOR INTRODUCING AN ACTIVE PHARMACEUTICAL INGREDIENT TO RAW SILICONE AND EXPLORING A NEW MEANS OF CONTROLLING LONG-TERM ELUTION RATES

Introducing APIs to Silicone and Controlling Elution Rates

Review methods for introducing APIs to raw silicone and explore a new means of controlling long-term elution rates. This paper takes a closer look at each of these methods and presents test results proving the effectiveness of each.

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