

Kraton Performance Polymers in Medical Applications

Kraton Performance Polymers brings fifty years of experience in polymer chemistry to achieve the highest levels of quality and dependability to medical products such as surgical devices, gloves, and medical garment applications. These advanced engineering synthetic elastomers are designed and produced to be free of health concerns associated with plasticizers. As a result, all Kraton™ polymers are phthalate-free and provide high performance, non-allergenic, solutions that are recyclable and are proven alternatives to polyvinyl chloride (PVC). Many Kraton polymers meet FDA and USP Class VI standards. Sterilization via ethylene oxide or radiation is possible as well as steam sterilization in certain formulations.

Our Kraton G and specifically ERS styrenic block copolymers (SBCs) are widely recognized for the ease of processing and formulating for diverse technologies such as extrusion, cast and blown films, and injection molding. These polymer solutions offer a range of physical properties from tough and transparent for medical tubing to very soft, stretchable fabrics for a broad range of single use disposable medical products. Kraton G polymers are highly compatible with polypropylene (PP) to form extrudable and moldable compounds improving flow without plasticizers, providing clarity, and increasing impact resistance.

Pure. Strong. Soft. These are the key features in our Cariflex™ Polyisoprene Product line which offers the customers an attractive alternative to natural rubber in applications such as surgical gloves, condoms, catheters, medical stoppers and rigid needle shields. These products are a superior alternatives to natural rubber amongst others because they are free from naturally occurring natural rubber proteins that can trigger allergy Type I reactions.

Kraton G, ERS polymers, and Cariflex polyisoprenes are the results of our comprehensive R&D capabilities and dedicated polymer expertise. At Kraton, we are committed to creating custom material solutions that can drive market innovation. Customers benefit from our ability to conduct molecular level formulating as well as develop polymer designs targeting the enhanced performance characteristics required by end-product manufacturers.

Superior product quality, industry expertise and world-class customer service are Kraton core strengths. At Kraton Performance Polymers, we give innovators their edge by developing innovative polymer solutions for the most challenging medical applications.

Wound Dressings, Transdermal Patches and Apparel

Medical fabrics produced with Kraton™ ERS polymers and polypropylene achieve bidirectional stretch and recovery ideal for cuffs, waistbands and face masks providing a protective fit while being soft and flexible. These fabrics can serve as substrates for transdermal patches and wound dressings, delivering tension equally across the substrate and are non-irritating to fragile skin.

- Two way stretch - bidirectional
- Ultra-soft and non-irritating
- Sonic and RF Weldable
- FDA and USP Class VI Approved

Surgical and Orthopedic Drapes

Drapes used in surgical and orthopedic procedures isolate an area for surgery, preventing the spread of infection and containing wash fluids. Elastic films made with Kraton G are used as fenestration panels which are highly conformable and resistant to tearing and strikethrough.

IV Bags and Medical Containers

ERS SEBS polymers are used to manufacture medical bags that will contain IV fluids or blood components. These polymers can be processed as mono-layer films, single film layers in a multi-layer bag wall or dry-blended with a polyolefin like polypropylene. Kraton G compounds are often used to manufacture a 200-micron Coextruded Blown Film for PVC replacement. ERS SEBS polymers modified with PP are free of latex, phthalates, and PVC for bottles, containers and medical parts.

- Outstanding clarity
- Low extractables
- Heat resistance for sterilization (Steam: 121°C for 20-30 min.)
- Heat sealability (150°C to 170°C for 1-2 sec.)
- High impact resistance at room and low temperatures

Medical Tubing

Shore A hardness, high polypropylene compatibility and ease of processing make Kraton ERS SEBS polymers good choices for manufacturing clear medical tubing. Kraton G compounds combined with random copolymer polypropylene (RCP) are industry-proven alternatives to PVC for flexible IV tubing. These tough materials pass all ISO 10993 biological toxicity testing for use in medical applications and are USP Class VI approved.

- Resistance to kinking
- Excellent flexibility
- Transparent
- Low coefficient of friction
- Weldable

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