



LUBRIZOL ENGINEERED POLYMERS PORTFOLIO

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POLYMERS

ADVANCING MATERIALS.
ELEVATING PERFORMANCE.

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Lubrizol Engineered Polymers' innovative solutions are selected for the outstanding physical and aesthetic properties they provide in many industrial, sports, recreational and consumer goods applications. Our polymers bridge the gap between flexible rubber and rigid plastics, with a wide variety of physical and functional property combinations.

As the inventor of thermoplastic polyurethane (TPU), our ESTANE® polymers set the mark for performance and quality. Through decades of innovation and strong dedication to the markets we serve, we have developed one of the deepest, most specialized portfolios available.

We help customers solve some of the industry's toughest challenges, making products safer and stronger for better end-use performance, often while simultaneously improving aesthetics and sustainability outcomes.



*Bio-based content as certified in accordance with ASTM D-6866.

**Recyclability is based on access to a readily available standard recycling program that supports such materials. This product may not be recyclable in all areas.



Inventor and Innovator *-serving a broad array of* ***performance applications***

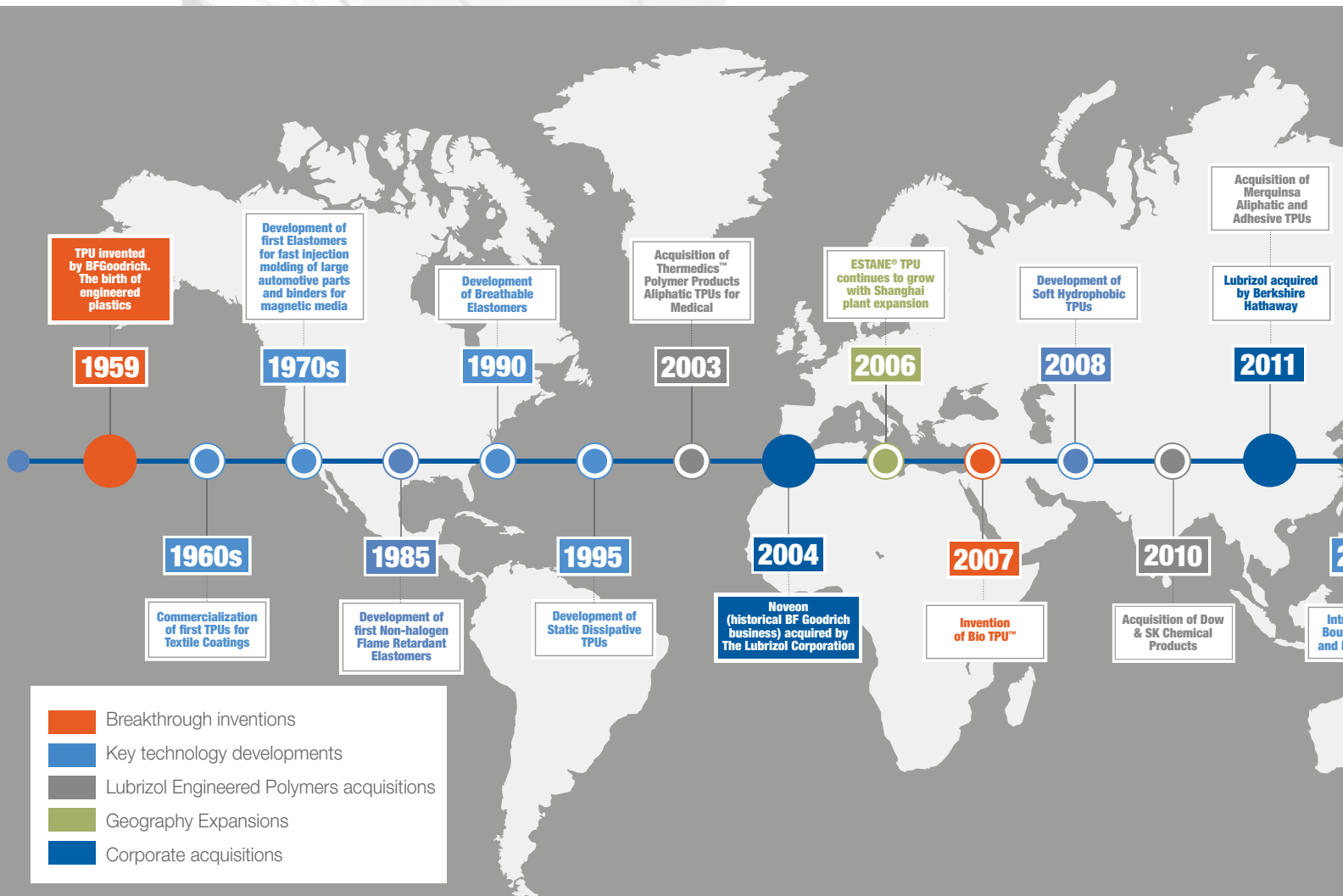
PRODUCT BENEFITS

- Bio-based*
- Recyclable**
- Abrasion Resistance
- Impact Resistance
- Puncture Resistance
- UV Resistance and/or Filtering
- Chemical Resistance
- Hydrolysis Resistance
- Hardness (52A to 85D)
- Thermal Extremes
- Barrier Properties
- Fungal Resistance
- Optical Clarity
- Polymer Compatibility
- Static Dissipation
- Antimicrobial
- Flame Resistance
- Friction

At Lubrizol, as materials science experts, we work collaboratively with customers to build market insights and redefine problems and how they are solved – from the molecular level right through formulation, applications development and performance testing.

Our chemistry is simple, yet versatile, giving us powerful capacity for innovation. Through formulation and processing, we can precisely engineer the technology to the needs of the application and end-use.

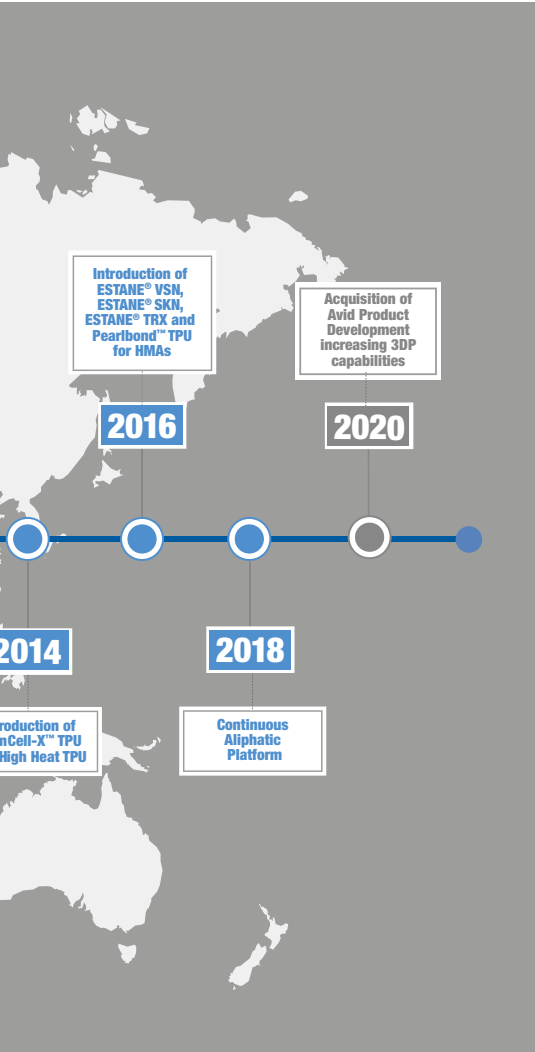
Advancing materials, elevating performance – it's both our mission and our passion.



FULL RESPECT FOR PRODUCT SAFETY AND COMPLIANCE

Depending on the grade, Lubrizol Engineered Polymers are able to meet or exceed the most stringent requirements of a wide variety of regulatory codes and various industry-regulated environmental standards. These include, but are not limited to:

- NSF (National Science Foundation)
- Military Specifications
- Flame-Retardant Specifications: UL (Underwriters Laboratory)
- Automotive OEM (original equipment manufacturers) specifications
- DIN (Deutsches Institut für Normung e. V.), ISO (International Standards Organization), ASTM (American Society for Testing and Materials), JIS (Japanese Industrial Standards) test methods
- Oeko-Tex certification for breathable TPUs



A POWERFUL LEGACY INSPIRED BY BETTER

From the invention of ESTANE® TPU through our most recent expansions and innovations, we remain focused on improving lives and delivering customer success. Inspired by better, we constantly strive to help customers solve problems they once thought impossible, and to bring together the people, ideas and technologies that can enable new designs, better performing materials and more sustainable outcomes.

We are proud to be part of The Lubrizol Corporation, a Berkshire Hathaway Company. Lubrizol leverages its unmatched science to unlock immense possibilities at the molecular level, driving sustainable and measurable results to help the world move cleaner, create smarter and live better. Founded in 1928, Lubrizol owns and operates more than 100 manufacturing facilities, sales and technical offices around the world and has approximately 8,600 employees.



To learn more, visit www.lubrizol.com/engineered-polymers.

PRODUCT PLATFORMS



ESTANE® TPU

A extensive range of high performance solutions and chemistries precisely engineered to the applications they serve, from consumer to industrial specialties.



ESTALOC™ RETPU

Reinforced high flex modulus materials engineered for extra strength and stiffness and dimensional stability.

ISOPLAST® ETP

Rigid materials engineered for high tensile strength and impact resistance.

PEARLBOND™ TPU

Solvent-free engineered polymers for high performance hot melt and reactive PUR hot melt adhesive applications.

PEARLSTICK™ TPU

High-performing polymer solutions with a wide crystallization range for solvent-based adhesive formulations.





PEARLCOAT™ TPU

Specialty elastomers engineered for use in melt coating processes.

PEARLTHANE™ TPU

Engineered to meet the needs of high-demanding technical and industrial applications.

BIO TPU™ BY LUBRIZOL

Specialties from our Pearlbond and ESTANE ECO ranges, engineered for performance with renewable, bio-based* content and sustainability benefits.



CARBO-RITE™

Conductive compounds engineered to provide consistent, permanent electrostatic dissipative (ESD) effects.

STAT-RITE™

Ultra-clean, proprietary polymer alloys with inherently static dissipative properties.



FOCUS MARKETS

- Additive Manufacturing
- Consumer Electronics
- Consumer Specialties
- Industrial Specialties
- Performance Apparel
- Performance Footwear
- Surface Protection
- Transportation

LOCALLY PRESENT GLOBALLY NETWORKED

With local sales and technical support, R&D and manufacturing centers of excellence in each region, and a well-networked global supply chain, we offer a convenient, single source of reliable solutions for customers across the world.

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To learn more, contact us at engineeredpolymers@lubrizol.com.

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