



Your Link To: Advanced Wound Care

At Lubrizol LifeScience Polymers, we apply our technical expertise and portfolio of specialty thermoplastic polyurethane (TPU) products to the development of innovative treatments for burns, lacerations, infection, ulcers and general tissue damage. Our wound care applications exhibit biocompatibility, absorbency, barrier and balanced moisture vapor transmission rate (MVTR) properties, which ensure the necessary amount of protection from contaminants and microbes for healing tissues while also maintaining one-way transmission of moisture for breathability.

As a technology leader and one of the largest providers of engineered polymers, Lubrizol is your custom solution development partner. Our TPU products can be tailored for a variety of wound care applications. For instance, Tecophilic™ and Pellethane® TPUs are used in films, tapes and backings.

Tecophilic TPU and Carbopol® polymers are ideal for hydrogel applications. These materials have a pronounced ability to absorb wound exudate and can be used in blood clotting for severe wounds. They can also provide a buffering effect on wounds, which can be crucial to controlling microbes in wounds.

Specialty TPUs for Advanced Wound Care Applications

Lubrizol LifeScience Polymers TPU products are used in a variety of wound care devices and treatments, including IV tape, surgical incision adhesion, films and backings. TPU is considered a preferred polymer for these applications, specifically our Tecophilic™ and Pellethane® TPU product lines, because of the material's ability to absorb moisture, provide breathability and supply an adequate barrier to contaminants, all in a manner that is comfortable for a patient.

Many Lubrizol technologies can also be used in synthetic dressings, which include products such as hydrogels and woven or non-woven dressings. Hydrogels are used in tandem with a backing to absorb moisture and provide cooling sensations in a wound or to fill a void during healing.

TPU Product Properties

	PELLETHANE® TPU	TECOPHILIC™ TPU	TECOTHANE™ TPU	TECOFLEX™ TPU
Aromatic or Aliphatic	Aromatic	Aliphatic	Aromatic	Aliphatic
Base	Polyether- and Polyester-based	Polyether-based	Polyether- and Polyester-based	Polyether-based
Durometer Range	81A-76D	70A-60D	62A-84D	72A-83D
MVTR Grades Available (moisture vapor transmission rate)	Yes	Yes	Yes	Yes
Customer Colors (available with)	No	Limited	Yes	Yes
Solution Grades	No*	Yes	No*	Yes
Hydrogel Grade	No	Yes	No	No
Extrusion and/or Molding Grades	Both	Both	Both	Both
Biostability (<30 days)	Good	Good	Good	Good
Biostability (>30 days)	Shore D - Good, Shore A - Application Dependent	Not Determined	Shore D - Good, Shore A - Application Dependent	Shore D - Good, Shore A - Application Dependent
Strength	Best	Dry - Good, Wet - Fair	Best	Good
Flexibility	Good	Good	Good	Best
Solvent Resistance	Best	Good	Best	Good

*Some extrusion and injection molding grades can be dissolved in specific organic solvents.

Whatever your needs for wound care applications, Lubrizol technology can help. Contact Lubrizol LifeScience Polymers to learn more about our products and how they can help you enhance quality of life and succeed in the marketplace.



LifeScience Polymers | Medical Solutions | Pharmaceutical Solutions | Oral Care & Dental Solutions

For more information, visit Lubrizol.com/LifeSciencePolymers
 Or call us at 1-216-447-5000 / 888-234-2436 (toll free)



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