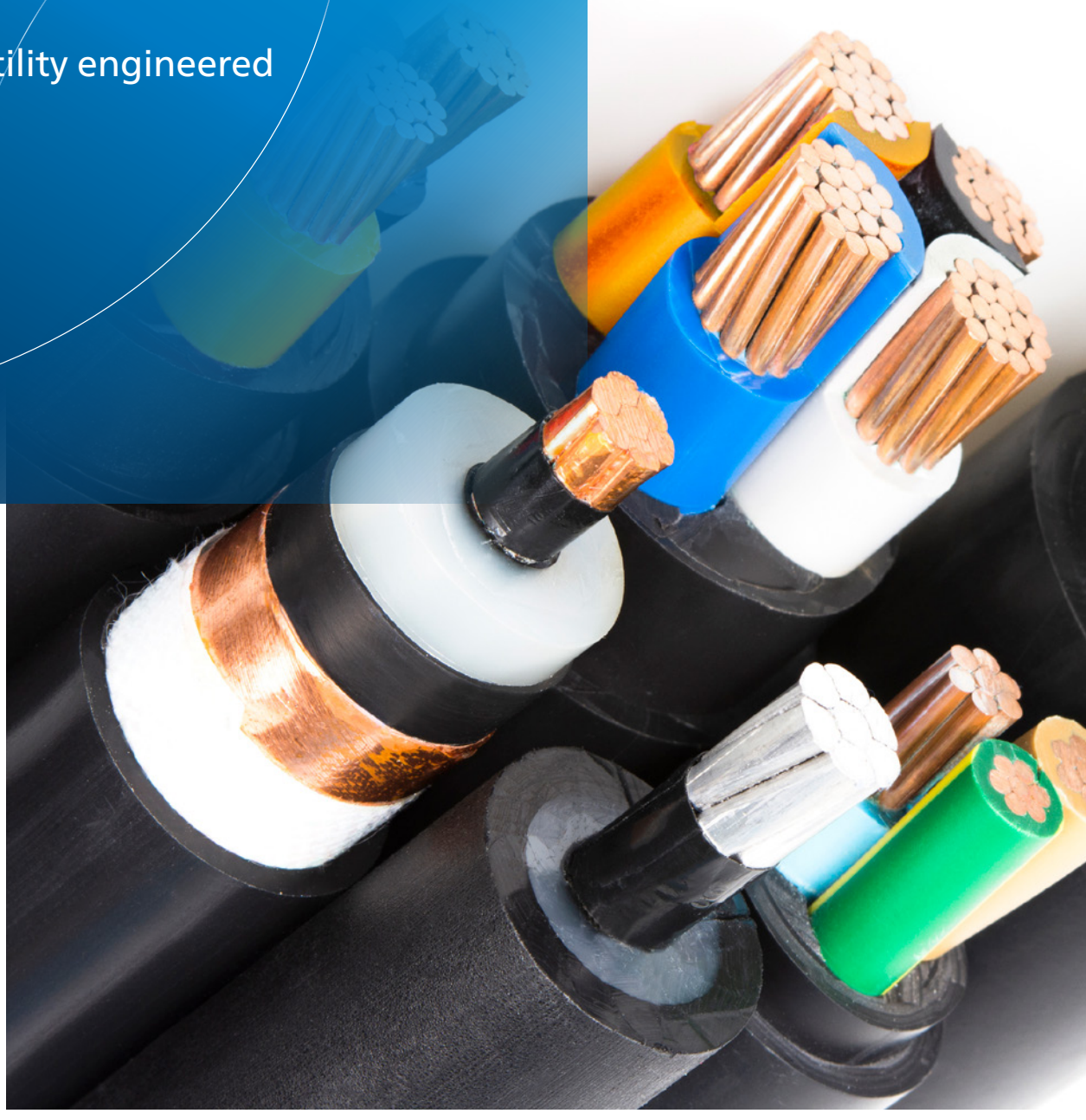
Product Focus

Elastollan® TPU

Versatility engineered



BASF
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Omya Performance
Polymer Distribution

Elastollan® TPU
Versatility engineered

Discover the power of performance
with Elastollan® TPU.

High-performance TPU for demanding applications

Elastollan® TPU is BASF's premium thermoplastic polyurethane (TPU), engineered to deliver exceptional durability, flexibility, and chemical resistance across a wide range of applications.

Combining the elasticity of elastomers with the efficiency of thermoplastics, **Elastollan® TPU** enables cost-effective processing together with high mechanical performance and design freedom.

Available in a broad portfolio of ether-, ester-, and aliphatic-based grades, **Elastollan® TPU** can be precisely tailored to meet application-specific, regulatory, and performance requirements.

Key benefits

Material performance	Value for customers
Outstanding abrasion and wear resistance	Extended product lifetime in demanding environments
High tensile strength & tear resistance	Reliable performance under mechanical and dynamic stress
Excellent elasticity and flexibility	Design freedom across a wide temperature range
Resistance to oils, greases, and chemicals	Ideal for industrial, automotive, and cable applications
Very good low-temperature performance	Proven reliability in cold and outdoor conditions
Weathering and environmental resistance	Suitable for long-term outdoor use
Broad formulation portfolio (ether, ester, aliphatic)	Optimized material selection for each application
Excellent processing behavior	Efficient extrusion, injection molding, and blow molding

Where Elastollan® TPU performs

Elastollan® TPU is used across industries when durability, flexibility, and reliability are critical in your applications:

- **Automotive and e-mobility (including EV charging cables)**
- **Wire and cable sheathing**
- **Industrial manufacturing (rollers, belts, profiles)**
- **Hose and tubing systems**
- **Films and extrusion coatings**
- **Footwear, sports and leisure**
- **Consumer electronics**
- **Medical and food-contact applications**

Material technologies

Material type	Key characteristics	Typical applications
Elastollan® polyester TPU	Excellent mechanical strength, abrasion resistance, oil resistance, high resilience	Rollers, belts, automotive components, industrial parts
Elastollan® polyether TPU	Superior hydrolysis resistance, microbial resistance, excellent low-temperature flexibility	Cable sheathing, hoses, outdoor applications, fluid handling
Elastollan® aliphatic TPU	UV stability, color fastness, non-yellowing, high transparency	Films, consumer goods, optical and outdoor applications

Performance

Elastollan® TPU combines key performance attributes required for demanding applications:

Property area	Performance characteristics
Mechanical	High tensile strength and excellent tear resistance
Wear	Outstanding abrasion resistance
Elasticity	Excellent flexibility and damping behavior
Thermal	Reliable performance across a wide temperature range
Chemical	High resistance to oils, greases, oxygen, and ozone
Environmental	Resistant to hydrolysis, microbes, and weathering (grade dependent)

Typical properties*

Property	Test method	Unit	Value range (low to high)
Hardness (A/D)	DIN ISO 7619-1	-	35A - 83D
Density	DIN EN ISO 1183-1	g/cm^3	~1.05 to ~1.65 (reinforced)
Tensile strength	DIN 53504	MPa	~12 (soft) upto ~200 (reinforced)
Elongation at break	DIN 53504	%	~150 (reinforced) upto ~1200 (soft)
Tear strength	DIN ISO 34-1	kN/m	upto ~230
E-modulus	DIN EN ISO 527-2	MPa	~25 (soft) upto ~14000 (reinforced)
Temperature range	-	-	-40°C to +125°C

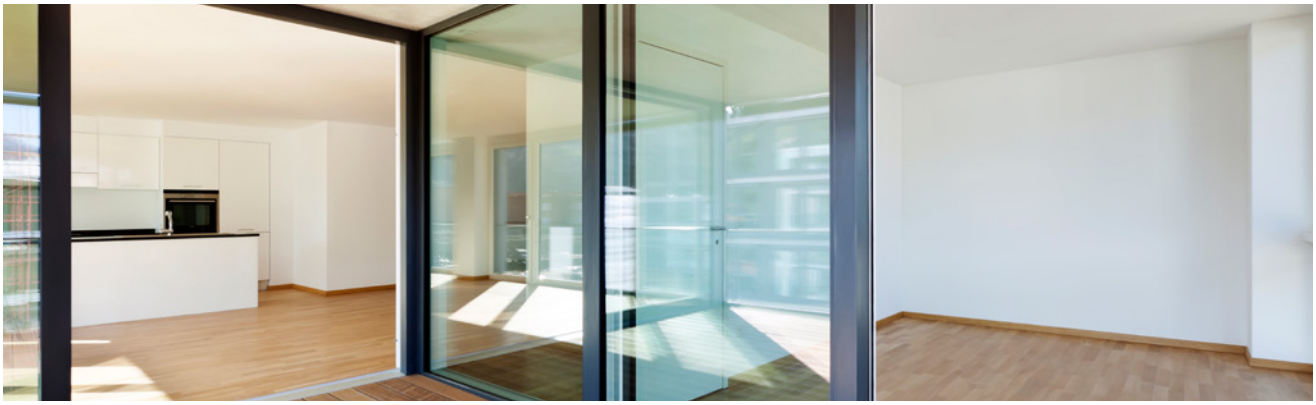
* Approximate values

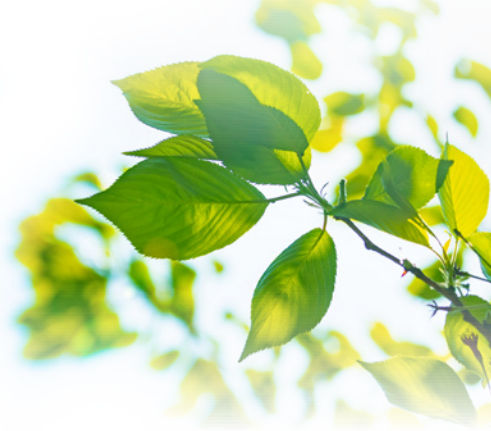
Processing versatility

Elastollan® TPU can be processed using a wide range of technologies:

- **Injection molding**
- **Extrusion (profiles, hoses, films, cable sheathing)**
- **Blow molding**

Its excellent flow characteristics and thermal stability enable consistent, high-quality manufacturing across a range of applications.





Sustainability and compliance

Elastollan® TPU contributes to more sustainable product design through:

- **Long product lifetime and durability**
- **Efficient processing and material use**
- **Availability of food-contact and medical-grade solutions**
- **Options for flame-retardant and specialty formulations**

Omya Performance Polymer Distribution – value for customers

Working with Omya Performance Polymer Distribution gives customers access to:

- **Local technical and application support across Europe**
- **Multi-material expertise and material selection recommendations**
- **Application development and processing optimization**
- **Regulatory and compliance support**
- **Reliable and flexible supply chain**

In North Europe, Elastollan® TPU is additionally supported through **Distrupol**, part of the Omya Performance Polymer Distribution network.

Let's develop your next application together

Elastollan® TPU enables manufacturers to transform complex challenges into **high-performance, durable, and cost-effective solutions.**

Contact Omya Performance Polymer Distribution to discuss your application.

omya.com

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