

TPU FOR BELTS AND PROFILES EMEAI PRODUCT SELECTION GUIDE



ADVANCING MATERIALS. ELEVATING PERFORMANCE.

TPU (THERMOPLASTIC POLYURETHANE) FOR BELTS AND PROFILES

| G | irades | TPU Polyol Type | Hardness ISO 868 (Shore A/D) | Key benefits | Tensile Strength ISO 527- 2/5A/500 (MPa) | Elongation at break ISO 527- 2/5A/500 (%) | Tear Resistance ISO 34-1B (kN/m) | Minimum Extrusion Temperature (°C) | MFI ISO 1133 (g/10 min) |
|---|-------------------------------------|------------------------------|---------------------------------------|--|--|---|---|---|-------------------------------|
| E | STANE® E855AB3 EXP | Polyester | 55A | Ultra soft / High grip / No plasticizers | 22 | 1000 | 48** | 195-205 | 15-35 |
| E | STANE [®] 58271 NAT 021 | Polyester | 86A | Wide processing window, Transparency | 42 | 650 | 60* | 180 | 15-25 |
| F | Pearlthane™ MAXI 12T85E | Polyester | 86A | Low-temperature flexibility, High-melt strength | 42 | 580 | 108** | 185-195 | 10-25 |
| E | STANE [®] 58206 NAT 033 | Polyester | 87A | Good mechanical and chemical properties, High-melt strength | 46 | 600 | 70* | 190 | 8-22 |
| F | Pearlthane [™] 12T92E | Polyester | 91A | High-melt strength, Hydrolytic stabilized | 39 | 500 | 112** | 195-205 | 70-95 |
| E | STANE [®] 58277 NAT 021 | Polyester | 93A/49D | Wide processing window, chemical and abrasion resistance | 47 | 550 | 100* | 185 | 10-20 |
| E | STANE [®] 58246 NAT 040 | Polyester | 95A/50D | High stiffness grade with excellent chemical and oil resistance | 57 | 420 | 123** | 210 | 10-25 |
| E | STANE [®] 58887 NAT 055 | Polyether | 89A | Low-temp. flexibility, Very good hydrolysis and microbial resistance | 47 | 570 | 65* | 185 | 25-35 |
| E | STANE [®] 58887 NAT 037 | Polyether | 89A | Improved adhesion / Low-temp. flex. / Very good hydrolysis & microbial resist. | 47 | 570 | 65* | 185 | 15-30 |
| E | STANE [®] ETE 90AB3 NAT 01 | Polyester | 90A | High-melt strength, Food approved | 40 | 500 | 112* | 195-210 | 70-95 |
| F | Pearlthane™ 11T85E | Polycaprolactone Copolyester | 86A | Good transparency, Good hydrolysis resistance | 35 | 650 | 90** | 185-195 | 55-90 |
| F | Pearlthane™ 11T92E | Polycaprolactone Copolyester | 93A | Good transparency, Good hydrolysis resistance | 42 | 560 | 130** | 195-205 | 55-90 |
| F | Pearlthane™ 11T98 | Polycaprolactone Copolyester | 98A/52D | Outstanding transparency, Hardness & processability balance | 40 | 470 | 175** | 180-195 | 55-80 |
| F | Pearlthane™ CLEAR 15N80 | Polyether Copolymer | 82A | Outstanding transparency, Low-temperature flexibility | 35 | 740 | 80** | 180-195 | 25-45 |
| F | Pearlthane™ CLEAR 15N85 | Polyether Copolymer | 86A | Outstanding transparency, Low-temperature flexibility | 35 | 660 | 95** | 185-200 | 24-45 |
| E | STANE [®] TS 92AP7 NAT 055 | Polycarbonate | 93A | High heat, hydrolysis and chemical resistance | 60 | 375 | 103* | 205 | 15-30 |
| | | | | | | | | | |

* Nicked / ** Unnicked

For information on EU and/or FDA food contact compliance, please contact Lubrizol Customer Assistance

All products may be available, upon request, in powder form as per below:

Maximum Particle Size Grade

| MFI Conditions | ТG (°С) | Main Applications |
|-------------------|------------|-----------------------------|
| 190°C/8.7 Kg | -40 | High grip belts and films |
| 190°C/8.7 Kg | -25 | Profiles |
| 210°C/3.8 Kg | -45 | Drive belts and profiles |
| 210°C/3.8 Kg | -40 | Drive belts and profiles |
| 220°C/3.8 Kg | -40 | Timing belts |
| 190°C/8.7 Kg | -15 | Profiles |
| 210°C/3.8 kg | -22 | Monolithic belts |
| 210°C/3.8 Kg | -45 | Elevator belts and profiles |
| 210°C/3.8 Kg | -45 | Elevator belts |
| 220°C/3.8 Kg | -40 | Food belts |
| 220°C/3.8 Kg | -40 | Timing belts and profiles |
| 220°C/3.8 Kg | -34 | Timing belts and profiles |
| 230°C/2.16 Kg | -30 | Timing belts and profiles |
| 210°C/3.8 Kg | -55 | Profiles |
| 210°C/3.8 Kg | -50 | Profiles |
| 210°C/3.8 kg | -22 | High-heat belts |

| ze of powder in µm (100%) | <106 | <250 | <355 | <500 | |
|---------------------------|------|------|------|------|--|
| | S | Х | F | L | |

Bio TPU[™] by Lubrizol products complement the offering for belts and profiles, please contact your local representative for more information. Bio-based content as certified in accordance with ASTM D-6866.

LUBRIZOL GLOBAL PRESENCE

Our global presence means we have the application and development laboratories (with technical service ability) already in place, as well as worldwide production capabilities and renowned customer service. We are also a specialty producer of performance coatings and other unique products for apparel. Teaming with Lubrizol simplifies a complex global supply chain.

Americas

Lubrizol Advanced Materials, Inc. 9911 Brecksville Road Cleveland, Ohio 44141 3201 USA Phone: +1 888 234 2436

Asia

Lubrizol Specialty Chemicals Shanghai) Co., Ltd. SF - No.3, Building C, Lane 227 Dongyu Road, Shanghai PRC 200126 Phone: +86 21 3866 0422

Europe, Middle East, India & Africa

ubrizol Advanced Materiais Spain Gran Vial, no. 17 18160 Montmeló (Barcelona) Spain Phone: +34 93 579 9522





To learn more, contact us at **engineeredpolymers@lubrizol.com** or visit **www.lubrizol.com/Engineered-Polymers**

The SELLER MAKES NO WARRANTIES, EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. Nothing contained herein is to be considered as permission, recommendation, nor as an inducement to practice any patented invention without permission of the patent owner.



