



Lubrizol



**TPU FOR
HOSE AND TUBE
EMEA
PRODUCT
SELECTION
GUIDE**

LUBRIZOL
ENGINEERED
POLYMERS

**ADVANCING MATERIALS.
ELEVATING PERFORMANCE.**

TPU (THERMOPLASTIC POLYURETHANE) FOR HOSE AND TUBE

| Grades | TPU Polyol Type | Hardness (Shore A/D) ISO 868 | Key benefits | Tensile Strength (MPa) ISO 527-2/5A/500 | Elongation at break ISO 527-2/5A/500 | Tear Resistance kN/m ISO 34-1B | Minimum Extrusion Temperature °C | MFI g/10 min. ISO 1133 | MFI Conditions | Main Applications |
|---------------------------|------------------------------|------------------------------|-------------------------------------------------------------------------------|-----------------------------------------|--------------------------------------|--------------------------------|----------------------------------|------------------------|----------------|-----------------------------------------------------------------|
| Estane® 58213 NAT 022 | Polyester | 76A | Wide processing window / PVC compatibility / Chemical & abrasion resistance | 25 | 700 | 45* | 165-175 | 20-60 | 190°C/8.7 kg | Spiral hoses & PVC blends |
| Estane® 58271 NAT 021 | Polyester | 86A | Wide processing window, Abrasion resistance | 42 | 650 | 60* | 175-185 | 15-25 | 190°C/8.7 kg | Spiral hoses |
| Pearlthane™ MAXI 12T85E | Polyester | 86A | Low Tg & high thermal resistance | 42 | 580 | - | 175-225 | 10-25 | 210°C/3.8 kg | Hoses, tubes & coextrusion onto high-temperature substrates |
| Estane® 58206 NAT 033 | Polyester | 87A | Chemical & abrasion resistance | 46 | 600 | 70* | 185-190 | 8-22 | 210°C/3.8 kg | Fuel tubes & spiral hoses |
| Estane® 58277 NAT 021 | Polyester | 93A/49D | Chemical & abrasion resistance | 47 | 550 | 100* | 185-190 | 10-20 | 190°C/8.7 kg | Spiral hoses |
| Estane® 58300 NAT 036 | Polyether | 82A | Low-temp. flex. / Wide processing window / Hydrolytic, fungus & UV resistance | 32 | 670 | 40* | 175-185 | 30-50 | 190°C/8.7 kg | Fire & spiral hoses |
| Estane® 58315 NAT 055 | Polyether | 85A | Low-temp flex. / Hydrolytic & fungus resistance / NSF certified | 46 | 570 | 55* | 180-190 | 10-24 | 190°C/8.7 kg | Flat & spiral hoses / Fracking / Potable water |
| Estane® 58197 NAT 022 | Polyether | 85A | Low-temp flex. / Hydrolytic & fungus resistance / NSF certified | 42 | 600 | 55* | 180-190 | 30-40 | 210°C/3.8 kg | Fracking / Potable water |
| Estane® 58887 NAT 055 | Polyether | 89A | Low-temp flex. / Hydrolytic & fungus resistance / NSF certified | 47 | 570 | 65* | 180-190 | 10-35 | 210°C/3.8 kg | Sleeves / Potable water / Fracking / Fire / Flat / Spiral hoses |
| Estane® 58212 NAT 021 | Polyether | 93A/42D | Low-temp flex. / Hydrolytic & fungus resistance / NSF certified | 50 | 500 | 95* | 200-210 | 6-13 | 190°C/8.7 kg | Potable water & catheters |
| Estane® ETE 45DT3 NAT 021 | Polyether | 45D | Hydrolytic & fungus resistance | 47 | 550 | 100* | 195-205 | 8-15 | 210°C/3.8 kg | Sleeves & hydraulic hoses |
| Pearlthane™ 11T80 | Polycaprolactone Copolyester | 82A | Chemical & abrasion resistance | 40 | 630 | 80** | 180-220 | 55-90 | 220°C/3.8 kg | Coil & pneumatic tubing |
| Pearlthane™ 11T85E | Polycaprolactone Copolyester | 86A | Chemical & abrasion resistance | 35 | 650 | 90** | 175-220 | 55-90 | 220°C/3.8 kg | Coil & pneumatic tubing |
| Pearlthane™ 11T92E | Polycaprolactone Copolyester | 93A | Chemical & abrasion resistance | 42 | 560 | 130** | 190-220 | 55-90 | 220°C/3.8 kg | Pneumatic tubing |
| Pearlthane™ 11T98 | Polycaprolactone Copolyester | 98A/52D | High-burst strength & creep resistance | 40 | 470 | 175** | 170-220 | 55-80 | 230°C/2.16 kg | Pneumatic tubing |
| Pearlthane™ CLEAR 15N80 | Copolymer | 82A | Clarity / Low-temp. flexibility | 35 | 740 | 80** | 180-225 | 25-45 | 210°C/3.8 kg | Spiral hoses |
| Pearlthane™ CLEAR 15N85 | Copolymer | 86A | Clarity / Low-temp. flexibility | 35 | 660 | 95** | 185-230 | 20-45 | 210°C/3.8 kg | Spiral hoses |
| Pearlthane™ ECO D12T80E | Bio TPU™ by Lubrizol | 82A | Bio-based*** | 33 | 604 | 84** | 190-210 | 40-90 | 220°C/3.8 kg | Spiral hoses |
| Pearlthane™ ECO D12T90E | Bio TPU™ by Lubrizol | 91A | Bio-based*** | 39 | 470 | 122** | 190-215 | 30-70 | 220°C/3.8 kg | Spiral hoses |
| Pearlthane™ ECO 12T95 | Bio TPU™ by Lubrizol | 95A | Bio-based*** | 36 | 415 | 142** | 200-225 | 40-80 | 220°C/3.8 kg | Spiral hoses |
| Pearlthane™ ECO D12T55D | Bio TPU™ by Lubrizol | 55D | Bio-based*** | 43 | 360 | 189** | 200-230 | 65-95 | 230°C/2.16 kg | Pneumatic & hydraulic tubes |

* Nicked / ** Unnicked / *** bio-based content as certified in accordance with ASTM-D6866.
For information on EU and/or FDA food contact compliance, please contact Lubrizol Customer Assistance

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.

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