



## OVERVIEW

Lubrizon is more than just a leading engineered polymer solutions supplier and manufacturer; Lubrizon is a proven and trusted partner to the hose, tube and profile markets. With over 55 years of experience and a worldwide network that includes formulation design, manufacturing, R&D, applications/ technical service support, and cutting-edge technologies, we help our customers make products more amazing.

In addition, our unique manufacturing process and wide product portfolio provides many unique advantages for the hose, tube and profile markets including:

- Excellent quality/product consistency
- Wide processing window
- High clarity and transparency
- Customized grades by form of stabilization and by viscosity

## INNOVATIVE THERMOPLASTIC POLYURETHANE (TPU) SOLUTIONS

Lubrizon's portfolio of TPU solutions provides superior properties and benefits for hose, tube and profile applications including:

- Long term flexibility
- Abrasion/cut/tear resistance
- Kink resistance
- Puncture resistance
- High burst pressure resistance
- Extended hydrolytic stability

Our polyester-based grades exhibit excellent oil, fuel, and solvent resistance, high temperature performance as well as good UV and hydrolytic stability.

Our polyether-based grades exhibit excellent low temperature properties, hydrolysis resistance and fungus resistance.

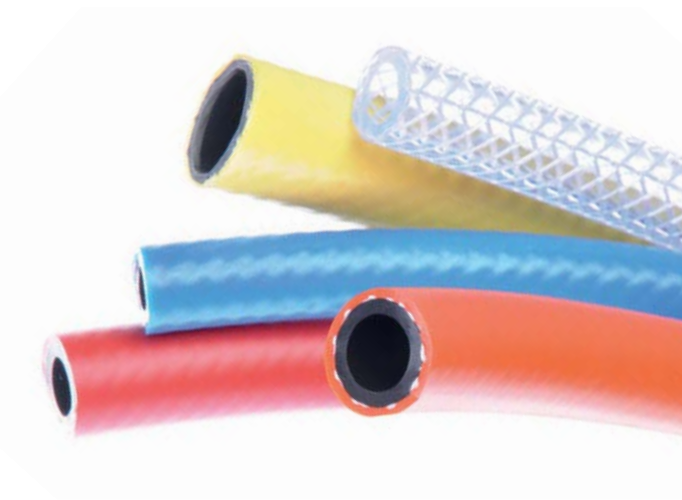
## HOSE, TUBE & PROFILE GRADES

Technology Platforms	Products	Shore Hardness	Features & Benefits
Polyester	ESTANE® 58070	72A	<ul style="list-style-type: none"> <li>• 72A to 60D</li> <li>• Excellent chemical resistance</li> <li>• Outstanding resiliency</li> <li>• Low temperature flexibility</li> <li>• Compatible with PVC</li> <li>• FDA grades available</li> </ul>
	ESTANE® 58213	75A	
	ESTANE® 5708	85A	
	ESTANE® 58206	85A	
	ESTANE® 58271	85A	
	ESTANE® 58226	92A	
	ESTANE® 58277	93A/45D	
	ESTANE® ETE 60DS3	60D	
Polyether	Pearlthane™ MAXI 12T85E	86A	<ul style="list-style-type: none"> <li>• 82A to 46D</li> <li>• Low temperature flexibility</li> <li>• Excellent hydrolysis and fungus resistance</li> <li>• Good mechanical properties</li> </ul>
	ESTANE® 58300	82A	
	ESTANE® 58284	85A	
	ESTANE® 58315	85A	
	ESTANE® 58863	85A	
	ESTANE® 58887	87A	
	ESTANE® 58810	90A	
Polycaprolactone copolyester	ESTANE® 58219	92A/46D	<ul style="list-style-type: none"> <li>• Both excellent abrasion, grease &amp; oil resistance</li> <li>• Excellent modulus &amp; creep values</li> <li>• Hydrolysis resistance</li> <li>• High burst strength</li> </ul>
	Pearlthane™ 11T80	82A	
	Pearlthane™ 11T85E	86A	
	Pearlthane™ 11T92E	93A	
Copolymer	Pearlthane™ 11T98 (for pneumatic tubing, crystal clear)	98A	<ul style="list-style-type: none"> <li>• Clarity</li> <li>• Low temperature flexibility</li> </ul>
	Pearlthane™ CLEAR 15N80	82A	
Stat-Rite® Dissipative TPU	Pearlthane™ CLEAR 15N85	85A	<ul style="list-style-type: none"> <li>• Surface resistance 10<sup>9</sup> &amp; 10<sup>11</sup> ohms</li> <li>• FDA compliant, ESD masterbatch for TPU</li> </ul>
	Stat-Rite® E-1140	82A	
Bio TPU™ by Lubrizol*	Stat-Rite® S-1100	91A	<ul style="list-style-type: none"> <li>• *Made with bio-based materials (plant-based, 29%-67%) determined by ASTM D6866</li> <li>• Same performance benefits as petroleum based TPU</li> </ul>
	ESTANE® ECO 12T80E	82A	
	ESTANE® ECO 12T85	85A	
	ESTANE® ECO 12T90E	91A	
	ESTANE® ECO 12T95	95A	
ESTANE® ECO 12T55D	55D		



### APPLICATIONS FOR TPU IN HOSE, TUBE & PROFILE

- Multilayer or Single Layer
- Lay flat hoses
- Spiral Hoses
- Garden Hoses
- Braided Hoses
- Packaging Equipment
- Air Powered Tools
- Robotics
- Dental Equipment
- Automated Equipment
- Pneumatic Hoists
- Conveyance of: chemical liquids, abrasive substances, food & beverages, gasoline & fuels



**LUBRIZOL**  
ENGINEERED  
POLYMERS

**ADVANCING MATERIALS.  
ELEVATING PERFORMANCE.**

