



▲ Wire and Cable

▲ Overview

A wire or cable jacket must protect the primary insulation from the environmental damage of weathering, hydrolysis or physical abuse.

Over the years, TPUs are replacing PVC and chloroprene rubber particularly in dynamic cable applications. These cables are potentially stored outdoors, reeled and unreeled in extreme climates, twisted over rocky terrain, pulled through desert sands or arctic ice, and/or submerged in water.

▲ Major Benefits of Estane® TPU

Thermoplastic polyurethane is widely applied as wire and cable sheathing for lower voltages up to 1 kV because of its very good mechanical and physical properties. Estane® TPUs have:

- Excellent toughness
- Flexibility at lower temperature
- Abrasion resistance
- Good environmental weathering

All these properties extend the durability and service life of such cables.

▲ Portfolio

To meet all these stringent requirements, Lubrizon offers a broad selection of polyether- and polyester-based Estane® thermoplastic polyurethanes.

Estane® polyether-based TPUs are recommended for applications requiring low temperature flexibility, good weathering properties and resistance to wet environments and/or fungus growth.

Estane® polyester-based TPUs are generally recommended for applications requiring mechanical strength, resistance to chemical attack and heat resistance.

ESTANE
THERMOPLASTIC POLYURETHANES



To meet all the stringent requirements of wire and cable sheathing, Lubrizon offers a broad selection of polyether- and polyester-based Estane® thermoplastic polyurethanes.



▲ Applications

- **Power/Energy cable**
[Building/Construction, Mining, Coiled/Spiral cables]
- **Telecommunication cable**
[Telephone/Data cabling, Military cabling, Fiber optics]
- **Geophysical cable**
[Land/Marine cable, Ocean bottom/Off-shore, Umbilicals]
- **Automotive cable**
[Anti-lock breaking systems - ABS, Harnesses]
- **Industrial cable**
[Robot/Cable chain cable, Signal cable, Mass transit, Train/Boat/Airplane, Subway/Airport/Public buildings]
- **Miscellaneous**
[Spiral/Retractable cable, Video/Audio cable, Medical]

▲ Top Product Selections*

| Estane® No. | Hardness | Tensile (psi) | Feature |
|-------------|----------|---------------|----------------------|
| 58300 | 82A | 4,500 | Low Temp Flex |
| 58315 | 85A | 7,000 | Cut Resistance |
| 58810 | 90A | 5,600 | High Temp Resistance |
| 58887 | 87A | 7,000 | Low Temp Flex |
| 58212 | 95A | 8,000 | Clarity |
| 58219 | 92A | 9,000 | Strength |
| 58202 | 85A | 4,000 | Flame Retardant |
| 58211 | 90A | 9,100 | Flame Retardant |
| 58206 | 85A | 6,500 | Low Temp Flex |
| 58277 | 93A | 8,000 | Chemical Resistance |
| ETE55DT3 | 55D | 8,400 | Easy to Extrude |
| ETE55DS3 | 55D | 10,300 | Easy to Extrude |

* See your Lubrizol representative for more product selections available for wire and cable applications.



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