

### **Technical Data Sheet**

Type: Estane<sup>®</sup> 58325 is an 85A Polyether-Based Thermoplastic Polyurethane (TPU).

Features: High melt strength for thick sheet extrusion.

Uses: Blown and Flat Die/Cast Extrusion, Tubing and Profile Extrusion.

Physical Properties	Value +/-3	Unit	Test Method
Hardness (5 sec)	85 +/- 3	Shore A	ASTM D-2240
Specific Gravity	1.12		ASTM D-792
Tensile Strength	7500 (51.7)	psi (MPa)	ASTM D-412
Ultimate Elongation	600	%	"
Tensile Stress at:			
- 100 % Elongation	800 (5.5)	psi (MPa)	ASTM D-412
- 300 % Elongation	1400 (9.7)	psi (MPa)	"
Tear Strength			
Graves	450 (8.1)	lb/in (kg/mm)	ASTM D-624 (die C)
Trouser	140 (2.5)	lb/in (kg/mm)	ASTM D-470
Taber Loss (1000 rev)	0.0022 (63)	oz (mg)	ASTM D-3389 (H18, 1000g)
T <sub>g</sub> (by DSC)	268 (131)	°F (°C)	Lubrizol Advanced Materials
T <sub>g</sub> (by DSC)	-47 (-44)	°F (°C)	Lubrizol Advanced Materials

• Prior to testing samples were conditioned at 23°C for 48 hours.

· Based on extruded sheet (30 mils).

· Listed values are "typical (average) values" and should / cannot be applied for specification purposes.

# Supply Form and Standard Packaging

• Estane<sup>®</sup> 58325 TPU is supplied in pellet form and packaged in 50 lb bags or 1000 lb boxes.

#### **Material Preparation**

- Prior to processing, Estane<sup>®</sup> 58325 TPU must be dried at 220°F (104°C) for 2-4 hours.
- It is recommended to dry the material in a desiccant type dryer. Target dew point should be -40°C.
- Depending on the applied processing technique, the maximum moisture level should be 0.02%.

#### **Material Preparation**

• Estane<sup>®</sup> 58325 TPU can be processed on any conventional extruder.

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# Recommended Starting Extrusion Temperature Profile:

	°F/°C
Zone 1	360/183
Zone 2	370/188
Zone 3	380/194
Zone 4	390/199
Adapter (5)	390/199
Die Zone 1	390/199
Die Zone 2	390/199

Temp. Mid-Range: 385°F/196°C Screen Pack Recommendation: 20/40/80/20

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#### Application Performance Film Polyether

Properties	Value (Metric)	Unit	Test Method
Tensile Set (200% elongation)	10	%	ASTM D-412
Volume Swell in Water (24h/23°C)	1.7	%	ASTM D-471

For further information refer to Lubrizol Advanced Materials processing guides.

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