

Technical Data Sheet

Type: Estane[®] 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 _g (by DSC) | 268 (131) | °F (°C) | Lubrizol Advanced Materials |
| T _g (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[®] 58325 TPU is supplied in pellet form and packaged in 50 lb bags or 1000 lb boxes.

Material Preparation

- Prior to processing, Estane[®] 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[®] 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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