

Technical Data Sheet

Type: ESTANE® 58300 is an 82A aromatic Polyether-Based Thermoplastic Polyurethane (TPU).

Features: Good physical properties, hydrolysis resistance, low temperature performance and abrasion with a wide processing window for extrusion.

Uses: Blown and flat die/cast film extrusion, Injection and blow molding and cable jacketing.

Physical Properties	Value (Metric)	Unit	Test Method
Hardness (5 sec)	82	Shore A	ASTM D-2240
Specific Gravity	1.104		ASTM D-792
Tensile Strength	5500 (37.9)	psi (MPa)	ASTM D-412
Ultimate Elongation	650	%	"
Tensile Stress at:			
- 100% Elongation	700 (4.8)	psi (MPa)	ASTM D-412
- 300% Elongation	1100 (7.6)	psi (MPa)	"
Tear Strength:			
- Graves	400 (7.1)	lb/in (kg/mm)	ASTM D-624 (die C)
- Trouser	130 (2.3)	lb/in (kg/mm)	ASTM D-470
Taber Loss (1000 rev)	0.0008 (22)	oz (mg)	ASTM D-3389 (H18, 1000g)
T _m (by DSC)	266 (130)	°F (°C)	Lubrizol Advanced Materials
T _g (by DSC)	-58 (-50)	°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® 58300 TPU** is supplied in pellet form and packaged in 50 lb. bags or 1000 lb. boxes.

Material Preparation

- Prior to processing, **ESTANE® 58300 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%.

Processing Conditions

- **ESTANE® 58300 TPU** can be processed on any conventional extruder.

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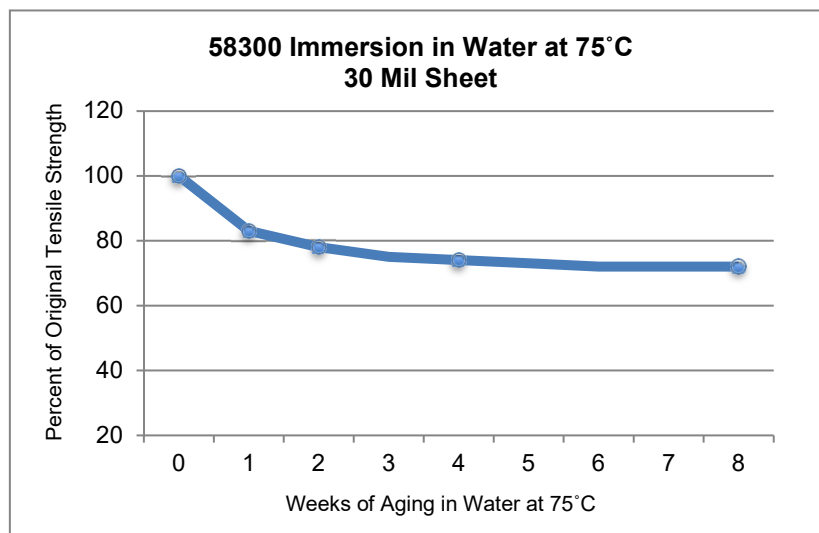
Recommended Starting Extrusion Temperature Profile:

	°F/°C
Zone 1	330/166
Zone 2	340/171
Zone 3	350/177
Zone 4	360/182
Adapter (5)	360/182
Die Zone 1 (6)	360/182
Die Zone 2	360/182

Melt Temp. Mid-Range: 355°F/179°C
 Screen Pack Recommendation: 20/40/80

Polyether TPU for High Performance Film & Sheet

Properties	Value (Metric)	Unit	Test Method
Tensile Set (200% elongation)	11	%	ASTM D-412
Kofler Melt Point	257 (125)	°F (°C)	Lubrizol Advanced Materials
Haze (pressed between glass)	7.0	%	ASTM D-1003
Volume Swell in Water (24h/23C)	2.0	%	ASTM D-471



For further information refer to Lubrizol Advanced Materials processing guides.

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