Lubrizol
Engineered Polymers

Estane® 58887 TPU

Type: Estane® 58887 is an 87A aromatic Polyether-Based Thermoplastic Polyurethane (TPU).

Features: Excellent hydrolysis resistance, low temperature performance, clarity and wide processing window for extrusion.

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

Physical Properties	Value (Metric)	Unit	Test Method
Hardness (5 sec)	87 +/- 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	500	%	"
Tensile Stress at:			
- 100% Elongation	1000 (6.9)	psi (MPa)	ASTM D-412
- 300% Elongation	1800 (12.4)	psi (MPa)	"
Tear Strength:			
- Graves	500 (8.9)	lb/in (kg/mm)	ASTM D-624 (die C)
- Trouser	150 (2.7)	lb/in (kg/mm)	ASTM D-470
Taber Loss (1000 rev)	0.00141 (40)	oz (mg)	ASTM D-3389 (H18, 1000g)
T_m (by DSC)	284 (40)	°F (°C)	Lubrizol Advanced Materials
T_g (by DSC)	-49 (-45)	°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® 58887 TPU** is supplied in pellet form and packaged in 50 lb bags or 1000 lb boxes.

Material Preparation

• Prior to processing, **Estane® 58887 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® 58887 TPU** can be processed on any conventional extruder.

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Recommended Starting Extrusion Temperature Profile:

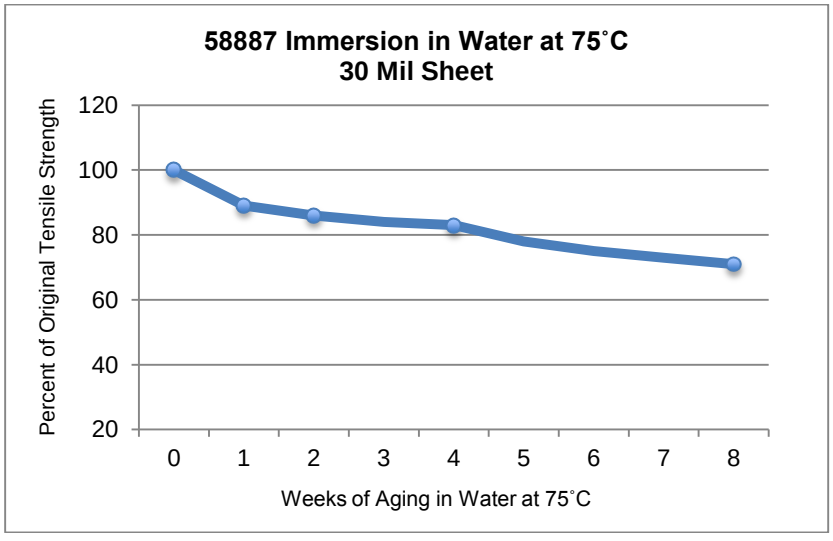
	°F/°C
Zone 1	**350/177**
Zone 2	**360/182**
Zone 3	**370/188**
Zone 4	**380/193**
Adapter (5)	**380/193**
Die Zone 1 (6)	**380/193**
Die Zone 2	**380/193**

Melt Temp. Mid-Range: 375°F/191°C
Screen Pack Recommendation: 20/40/80

Application Information: High Performance Film & Sheet

Properties	Value (Metric)	Unit	Test Method
Tensile Set (200% elongation)	18	%	ASTM D-412
Kofler Melt Point	302 (150)	°F (°C)	Lubrizol Advanced Materials
Haze (pressed between glass)	1.0	%	ASTM D-1003
Volume Swell in Water (24h/23˚C)	1.1	%	ASTM D-471
FDA 177.1680 (dry bulk foods)	Complies*		
FDA 177.2600 (wet/fatty foods)	Complies		
NSF 61 Status	Listed		

*Only for repeat use articles.



For further information refer to Lubrizol Advanced Materials processing guides.

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