

Technical Data Sheet

Type: Estane® 58284 is a 85A Polyether-Type Thermoplastic Polyurethane (TPU).

Features: Matte finish, superior durability.

Uses: Extrusion – wire and cable, general application.

Physical Properties	Value (Metric)	Unit	Test Method
Hardness (5 sec)	85 +/- 3	Shore A	ASTM D-2240
Specific Gravity	1.10		ASTM D-792
Tensile Strength	7000 (48.3)	psi (MPa)	ASTM D-412
Ultimate Elongation	550	%	"
Tensile Stress at:			
- 100% Elongation	950 (7.0)	psi (MPa)	ASTM D-412
- 300% Elongation	1900 (13.1)	psi (MPa)	"
Tear Strength:			
- Graves	440 (7.9)	lb/in	ASTM D-624 (die C)
- Trouser	71 (1.3))	lb/in	ASTM D-470
Taber Loss (1000 rev)	0.003 (83)	oz (mg)	ASTM D-3389 (H18, 1000g)
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® 58284 TPU** is supplied in pellet form and packaged in 50 lb bags or 1000 lb boxes.

Material Preparation

- Prior to processing, **Estane® 58284 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® 58284 TPU** can be processed on any conventional extruder.

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Recommended Starting Extrusion Temperature Profile:

	°F/°C
Zone 1	345/174
Zone 2	355/179
Zone 3	365/185
Zone 4	375/191
Adapter (5)	375/191
Die Zone 1	370/185
Die Zone 2	355/179

Melt Temp. Mid-Range 365°F/185°C
Screen Pack Recommendations: 20/40/80/20

Estane® 58284 TPU, an 85A Polyether-Type has been developed for superior performance characteristics for wire & cable applications. Among the critical performance parameters are:

- **Toughness** - important for retaining efficient transfer of load over time.
- **Superior Chemical & Oil Resistance** - provides best transfer of load and eliminates rubbing and frictional temperature buildup.
- **Prevents rub-off of material which can propagate into belt failure.**

Properties	Value (Metric)	Unit	Test Method
Mechanical Data			
Compression Set (22hrs; 23°C)	19	%	
Compression Set (22hrs; 70°C)	68	%	

For further information refer to Lubrizol Advanced Materials processing guides.

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