

Technical Data Sheet

Type: ESTANE® 58277 is a 92A aromatic Polyester-Based Thermoplastic Polyurethane (TPU).

Features: Excellent physical properties, good chemical resistance and wide processing window for extrusion.

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

Physical Properties	Value (Metric)	Unit	Test Method
Hardness (5 sec)	92 +/- 3	Shore A	ASTM D-2240
Specific Gravity	1.22		ASTM D-792
Tensile Strength	9000 (62.1)	psi (MPa)	ASTM D-412
Ultimate Elongation	450	%	"
Tensile Stress at:			
- 100 % Elongation	1400 (9.7)	psi (MPa)	ASTM D-412
- 300 % Elongation	4200 (29.0)	psi (MPa)	"
Tear Strength			
Graves	650 (11.6)	lb/in (kg/mm)	ASTM D-624 (die C)
Trouser	190 (3.4)	lb/in (kg/mm)	ASTM D-470
Taber Loss (1000 rev)	0.00176 (50)	oz (mg)	ASTM D-3389 (H18, 1000g)
T _m (by DSC)	266 (130)	°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® 58277 TPU is supplied in pellet form and packaged in 50 lb bags or 1000 lb boxes.

Material Preparation

- Prior to processing, ESTANE® 58277 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® 58277 TPU can be processed on any conventional extruder.

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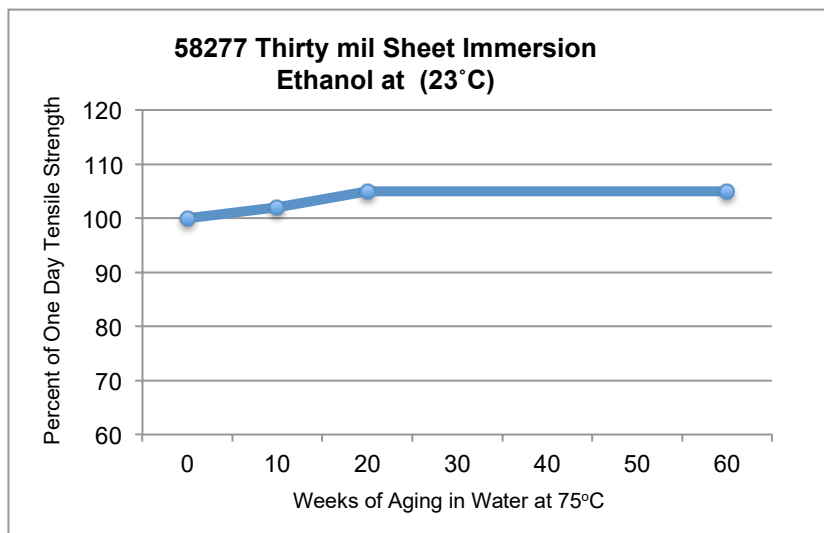
Recommended Starting Extrusion Temperature Profile:

	°F/°C
Zone 1	350/177
Zone 2	360/182
Zone 3	370/188
Zone 4	380/193
Adapter (5)	390/199
Die Zone 1 (6)	390/199
Die Zone 2	390/199

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

Application Information: High Performances Film & Sheet

Properties	Value (Metric)	Unit	Test Method
Tensile Set (200% elongation)	20	%	ASTM D-412
Kofler Melt Point	284 (140)	°F (°C)	Lubrizol Advanced Materials
Haze (65 mil between glass)	1.1	%	ASTM D-1003
Volume swell (24h) in Ethanol	12	%	ASTM D-471

Sheet Immersion in Ethanol at 23°C


For further information refer to Lubrizol Advanced Materials processing guides.

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