Technical Data Sheet

Type: Estane® 58215 is a 90A aromatic Polyether-Based Thermoplastic Polyurethane (TPU).

Features: Excellent physical properties, hydrolysis resistance and improved temperature resistance. 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)	90	Shore A	ASTM D-2240
Specific Gravity	1.14		ASTM D-792
Tensile Strength	9500 (65.5)	psi (MPa)	ASTM D-412
Ultimate Elongation	450	%	"
Tensile Stress at:			
- 100% Elongation	1300 (9.0)	psi (MPa)	ASTM D-412
- 300% Elongation	3300 (22.9)	psi (MPa)	"
Tear Strength:			
- Graves	600 (10.7)	lb/in (kg/mm)	ASTM D-624 (die C)
- Trouser	170 (3.0)	lb/in (kg/mm)	ASTM D-470
Taber Loss (1000 rev)	0.00152 (43)	oz (mg)	ASTM D-3389 (H18, 1000g)
T_m (by DSC)	347 (175)	°F (°C)	Lubrizol Advanced Materials
T_g (by DSC)	-40 (-40)	°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® 58215 TPU** is supplied in pellet form and packaged in 50 lb bags or 1000 lb boxes.

Material Preparation

- Prior to processing, **Estane® 58215 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%.

Please see reverse side for processing conditions.

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Processing Conditions

• **Estane® 58215 TPU** can be processed on any conventional extruder.

Recommended Starting Extrusion Temperature Profile:

	°F/°C
Zone 1	**360/182**
Zone 2	**370/188**
Zone 3	**380/193**
Zone 4	**390/199**
Adapter	**400/204**
Die Zone 1	**400/204**
Die Zone 2	**400/204**

Melt Temp. Mid-Range: 395°F/202°C
Screen Pack Recommendation: 20/40/80/20

Application Information: High Performance Film & Sheet

Properties	Value (Metric)	Unit	Test Method
Tensile Set (200% elongation)	20	%	ASTM D-412
Kofler Melt Point	338 (170)	°F (°C)	Lubrizol Advanced Materials
Haze (pressed between glass)	23	%	ASTM D-1003
Volume swell in Water (24h/23°C)	1.8	%	ASTM D-471
USP Class VI Status	Not Tested		

• Only for repeat use articles.

For further information refer to Lubrizol Advanced Materials processing guides.

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