

Technical Data Sheet

Type: Estane[®] SKN70E1 is a polyester type Thermoplastic Polyurethane (TPU).

Features: It is a Plasticizer-free soft polyester TPU with excellent mechanical properties, fast cycle time, less-blooming, good transparency and UV stability.

Uses: General injection molding

Physical Properties	Value (Metric)	Unit	Test Method
Hardness (5 sec)	70+/-3	Shore A	ASTM D-2240
Specific Gravity	1.21		ASTM D-792
Tensile Strength	3770 (26)	psi (MPa)	ASTM D-412
Ultimate Elongation	980	%	"
Tensile Stress at:			
- 100 % Elongation	435 (3.0)	psi (MPa)	ASTM D-412
- 300 % Elongation	840 (5.8)	psi (MPa)	"
Tear Strength			
Graves	420 (7.5)	Lb/in (kg/mm)	ASTM D-624 (die C)
Trouser	42	Cc loss	ISO 4649

- Prior to testing samples were conditioned at 23°C for 48 hours.
- Based on injected part (2mm)
- Listed values are "typical (average) values" and should/cannot be applied for specification purposes.

Supply Form and Standard Packaging

- Estane[®] SKN70E1 is supplied in pellet form and packaged in 50 lb bags or 1000 lb boxes.

Material Preparation

- Prior to processing, Estane[®] SKN70E1 must be dried at 158~176°F (70~80°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[®] SKN70E1 can be processed on any conventional Injection molding machine.

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Recommended Starting Injection Molding Temperature Profile:

	°C
Zone 1	180
Zone 2	185
Zone 3	185
Zone 4	190

Injection pressure/speed: low/slow

Mold shrinkage * : 0.010 (flex bar) cm/cm

** Mold shrinkage was determined using ASTM D955. Actual shrinkage will vary with part size, design and processing conditions. Please contact a Lubrizol technical representative for more information*

For further information refer to Lubrizol Advanced Materials processing guides.

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