PROVISIONAL TECHNICAL DATA SHEET

Technical Data Sheet

Type: Aliphatic polycaprolactone based Thermoplastic Polyurethane (TPU) with a 88 Shore A Hardness.

Features: Translucent resin with excellent colour stability upon UV exposure

Uses: Injection moulding outdoor applications.

Physical Properties	Value (Metric)	Unit	Test Method
Hardness (3 sec)	A/3: 88	Shore A	ISO 868 / ASTM D-2240
Specific Gravity	1.12	g/cm^3	ISO 2781 / ASTM D-792
Tensile Strength	34 (4931)	MPa (psi)	ISO 527-2 / ASTM D-412
Ultimate Elongation	700	%	ISO 527-2 / ASTM D-412
Tensile Stress at:			ISO 527-2 / ASTM D-412
- 100 % Elongation	6 (870)	MPa (psi)	ISO 527-2 / ASTM D-412
- 300 % Elongation	9 (1305)	MPa (psi)	ISO 527-2 / ASTM D-412
Abrassion Loss	20	mm^3	ISO 4649
Tear Strength	110 (628)	kN/m (lb/in)	ISO 34-1B (ASTM D-624 Die C)
Vicat Softening point A50	86 (359)	ºC (ºF)	ISO 306
Haze (2 mm)	25	%	ASTM 1003
Moisture Content	< 0.1	%	MQSA 44

• Based on injected plaques
• Prior to testing samples were conditioned at 23°C for 24 hours

Supply Form and Standard Packaging

• **ESTANE® D91T86 NAT 01** is supplied in pellet form and packaged in 25 kg (x lb) bags or 700-800 kg boxes (x-y lbs).

Material Preparation

• Prior to processing, **ESTANE® D91T86 NAT 01** must be dried at 90ºC (194ºF) for 2 hours.
• It is recommended to dry the material in a vacuum or dehumidifying 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® D91T86 NAT 01** can be processed on any conventional injection molding.

Recommended Starting INJECTION MOLDING Temperature Profile:

	°C/°F
Feeding zone	**170/338**
Zone 2	**175/347**
Zone 3	**180/356**
Nozzle	**185/365**
Mold Temperature	**35/95**

For further information refer to Lubrizol Advanced Materials processing guides.