PROVISIONAL TECHNICAL DATA SHEET

Technical Data Sheet

Type: Aliphatic polycaprolactone based Thermoplastic Polyurethane (TPU) with a 81 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: 81	Shore A	ISO 868 / ASTM D-2240
Specific Gravity	1.11	g/cm^3	ISO 2781 / ASTM D-792
Tensile Strength	25.3 (3669)	MPa (psi)	ISO 527-2 / ASTM D-412
Ultimate Elongation	800	%	ISO 527-2 / ASTM D-412
Tensile Stress at:			ISO 527-2 / ASTM D-412
- 100 % Elongation	4.3 (624)	MPa (psi)	ISO 527-2 / ASTM D-412
- 300 % Elongation	7.5 (1088)	MPa (psi)	ISO 527-2 / ASTM D-412
Abrasion Loss	30	mm^3	ISO 4649
Tear Strength	80 (457)	kN/m (lb/in)	ISO 34-1B (ASTM D-624 Die C)
Vicat Softening point A50	60 (140)	ºC (ºF)	ISO 306
Haze (2 mm)	23	%	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® D91T80 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® D91T80 NAT 01** must be dried at 80-90ºC (176-194ºF) 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® D91T80 NAT 01** can be processed on any conventional injection molding.

Recommended Starting INJECTION MOLDING Temperature Profile:

	°C/°F
Feeding zone	**175/347**
Zone 2	**180/356**
Zone 3	**185/365**
Nozzle	**190/374**
Mold Temperature	**35/95**

For further information refer to Lubrizol Advanced Materials processing guides.