

Technical Data Sheet

Type: ESTANE® 91F88 is an aliphatic polycaprolactone based Thermoplastic Polyurethane (TPU) with a 90 Shore A hardness.

Features: Clear resin with excellent colour stability upon UV exposure.

Uses: cast film extrusion, profile extrusion

Physical Properties*	Value (Metric)**	Unit	Test Method
Hardness	A/1: 90	Shore A/D	ISO 868
Specific Gravity	1.13	g/cm ³	ISO 2781
Tensile Strength	47	MPa	ISO 527-2/5A/500
Ultimate Elongation	500	%	ISO 527-2/5A/500
Tensile Stress at:			
- 50 % Elongation	7	MPa	ISO 527-2/5A/500
- 100 % Elongation	9	MPa	ISO 527-2/5A/500
- 300 % Elongation	21	MPa	ISO 527-2/5A/500
Tear Strength nicked	76	kN/m	ISO 34-1B
Tear Strength unnicked	93	kN/m	ISO 34-1B
Abrasion Resistance	42	mm ³	ISO 4649-A
Vicat Softening Point	49	°C	ISO 306 (A50)

* based on extruded strip. See reverse side for processing information

** listed values are "typical (average) values" and should/can not be applied for specification purposes.

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Material Preparation

Prior to processing, **ESTANE® 91F88** be dried at **60°C** for 3 hours. It is recommended to dry the material in a dehumidifying type dryer. Target dew point should be **-40°C**.

Recommended EXTRUSION Temperature Profile:

	°C
Zone 1	160
Zone 2	170
Zone 3	180
Zone 4	190
Adapter (5)	190
Die Zone 1 (6)	190
Die Zone 2	190

Health and safety

A safety data sheet on **ESTANE® 91F88** is available, with all information related to safety. The usual safety practices in the handling of chemicals should be observed, i.e.: good ventilation in the working area, gloves and protective goggles.

Storage

ESTANE® 91F88 must be stored in a cool (15–25°C) environment prior to being processed. Standard practice of consuming resin on first-in first-out basis should be employed.

For further information refer to Lubrizol Advanced Materials processing guides.

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