

Technical Data Sheet

TYPE: Polycaprolactone Copolyester Thermoplastic Polyurethane (TPU)

Special Feature: Low Melting Point with Excellent Transparency, Elasticity and Ease of Processing, Improved Adhesion to Polar Surfaces

Processes: Extrusion; Solution Cast Films; Compounding with PVC;

	Test		Results	
Physical Properties*	Hardness (ASTM D-2240)	Shore	70A	
	Appearance	Visual	Translucent	
	Haze (ASTM D-1003)	65 mil between glass	Not Measured	
	Specific Gravity (ASTM D-792)	g/cm ³	1.16	
	Tensile Strength (ASTM D-412)		2900 psi	20 MPa
	Tensile Set (ASTM D-412)	200% Elongation	Not Measured	
	Ultimate Elongation (ASTM D-412)		750%	
	Tensile Stress (ASTM D-412)	@ 100% Elongation	435 psi	3.0 MPa
		@ 300% Elongation	580 psi	4.0 MPa
	Tear Strength	Graves (ASTM D-624 (Die C))	286 lb./in	6.84 kg/mm
Trouser (ASTM D-470)		Not Measured		
Taber Loss (DIN 53.516)		45 mm ³		
Thermal Properties*	Melting Range (MQSA 111) MFI =10	MFI =10 gms/10 min@21.6kg	244 - 262°F	118 - 128°C
	Softening Range (MQSA 70-Kofler)	300 Micron film	212 - 230°F	110 - 110°C
	Glass Transition (DIN 51.007)	(DSC, 10°C/min.)	(22)°F	(30)°C

**All values are typical values and should not be used for specification purposes*

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Regulatory Status: None

Material Preparation Prior to Processing:

- Material must be dried at 158-176°F (70 - 80°C) for 1 to 2 hours.
- It is recommended to be dried in a desiccant, hot air circulatory or vacuum type dryer. The target dew point should be negative 40°C
- Depending upon the processing technique, the maximum moisture level should be 0.02 percent.

Recommended Starting Extrusion Temperature Profile:

	°F /°C
Zone 1	257- 135° F (125 - 135° C)
Zone 2	302 - 310° F (150 -160° C)
Zone 3	329 - 347° F (165 -175° C)
Zone 4	338 - 356° F (170 -180° C)
Die	302 - 320° F (150 -160° C)

Type: 30/25d (l/d25:1) **Cooling:** Air **Screw:** 3:1 **Speed:** 50 rpm **Breaker Plate --- Filter:---** **Thickness Die:** 0.2 mm
Pre-heating: 2 hours @ 176°C (80°C).

For further information refer to Lubrizol Advanced Materials processing guides.

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