

Type: Pearlstick™ 5707 TPU is a Polyester-Type Thermoplastic Polyurethane (TPU).

Features: Very high tensile strength, excellent low temperature flexibility and superior abrasion and cut resistance. It is processed by means of solution coating, extrusion and melt coating.

Uses: Synthetic leather and magnetic media binder, inks and screen printing, films for lamination.

Physical Properties	Value (Metric)	Units	Test Method
Specific Gravity	1.22		ASTM D-792
Shore Hardness	90A/45D	Shore A	ASTM D-2240
Mechanical			
Tensile Strength	7300 (50.3)	psi (MPa)	ASTM D-412/D-638
Modulus			ASTM D-412/D-638
- 100% Elongation	1400 (9.7)	psi (MPa)	
- 300% Elongation	5000 (34.5)	psi (MPa)	
Ultimate Elongation	380	%	ASTM D-412/D-638
Brookfield Viscosity			RVT Spindle #2, 20 RPM, 23°C
- 15% T.S. in THF	600	cps	
- 15% T.S. in Cyclohexanone	Not Soluble	cps	
Adhesion to PET	0.2(0.04)	lb/in (kN/m)	TP-141

Prior to testing samples were conditioned at 23°C for 48 hours.

Based on extruded sheet (30 mils)

Listed values are "typical (average) values" and should/cannot be applied for specification purposes.

Supply Form and Standard Packaging

Pearlstick™ 5707 TPU is supplied in pellet form and packaged in 1000 lb boxes.

Properties	Value (Metric)	Units*	Test Method
Thermal			
Glass Transition Temperature	27 (-3)	°F(°C)	DSC**
Koefler Softening Point	198 (92)	°F(°C)	ASTM D-1525
Adhesive			
Ring and Ball Softening Point	368 (187)	°F(°C)	ASTM E-28-92
Melt Viscosity @ 400°F (204°C)	85000	cps	ASTM D-1084-88
Gradient Bar Tack Temperature	322 (161)	°F(°C)	
Open Time	<5	sec	ASTM D-4497-94
T-peel, Aluminum Foil	2.4 (0.4)	lb/in (kN/m)	ASTM D-1876-72
T-peel, Mylar Film	13.3 (2.3)	lb/in (kN/m)	ASTM D-1876-72

*These are typical values and should not be used for establishing specifications.

Contact your representative for availability and commercialization status.

**Differential Scanning Calorimeter, 10°C/min, temperature program, from the second heat.

For further information refer to Lubrizol Advanced Materials processing guides.

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