

**Technical Data Sheet**

**Type:** Pearlstick™ 5778 NT1 TPU is a Polyester-Type Thermoplastic Polyurethane (TPU).

**Features:** It is especially well suited for dispersing co-ferrite as well as CrO2 pigments used in video, audio, and data storage applications. This product offers excellent hydrolytic stability under accelerated test conditions as well as outstanding pigment dispersion characteristics. Because of its medium Tg, it offers excellent adhesion and easier calendaring for high quality video and audio formulations. An excellent video tape can be formulated by blending with other harder dispersing resins. It is also used for dispersing high-surface-area pigments as a polymeric dispersant.

**Uses:** Tape binder, inks, lacquers and polymeric dispersing polymer for pigment dispersion

Physical Properties	Value (Metric)	Units	Test Method
Specific Gravity	1.21		ASTM D-792
Shore Hardness	63D	Shore D	ASTM D-2240
<b>Mechanical</b>			
Tensile Strength	5000 (34.5)	psi (MPa)	ASTM D-412/D-638
Modulus			ASTM D-412/D-638
- 100% Elongation	2600 (17.9)	psi (MPa)	
Ultimate Elongation	250	%	ASTM D-412/D-638
<b>Brookfield Viscosity</b>			
- 15% T.S. in MEK	30 - 70	cps	RVT Spindle #2, 20 RPM, 23°C
- 15% T.S. in Cyclohexanone	180-200	cps	RVT Spindle #2, 20 RPM, 23°C
-15% T.S. in THF	70-80	cps	RVT Spindle #2, 20 RPM, 23°C

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™ 5778 NT1 TPU is supplied in pellet form and packaged in 25Kg bags.

Properties	Value	Units*	Test Method
<b>Thermal</b>			
Glass Transition Temperature	88 (30)	°F(°C)	DSC**
Softening Point	170-175 (70-80)	°F(°C)	ASTM-E2347-05
<b>Adhesive</b>			
T-peel, Mylar film, Cast in MEK	0.4 (0.1)	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.

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**STORAGE**

**Pearlstick™ 5778 NT1** must be stored in a cool (15–25°C) and 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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