

**Technical Data Sheet**

**Type:** Pearlstick™ 5778 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	78D	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	60-70	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 TPU is supplied in pellet form and packaged in 25Kg bags.

Properties	Value	Units*	Test Method
<b>Thermal</b>			
Glass Transition Temperature	88 (31)	°F(°C)	DSC**
Vicat Softening Point	100 (38)	°F(°C)	ASTM D-1525
<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.

The information contained herein is believed to be reliable, but no representations, guarantees or warranties of any kind are made as to its accuracy, suitability for particular applications or the results to be obtained. The information often is based on laboratory work with small-scale equipment and does not necessarily indicate end product performance or reproducibility. Formulations presented may not have been tested for stability and should be used only as a suggested starting point. Because of the variations in methods, conditions and equipment used commercially in processing these materials, no warranties or guarantees are made as to the suitability of the products for the applications disclosed. Full-scale testing and end product performance are the responsibility of the user. Lubrizol Advanced Materials, Inc. shall not be liable for and the customer assumes all risk and liability for any use or handling of any material beyond Lubrizol Advanced Materials, Inc.'s direct control. The SELLER MAKES NO WARRANTIES, EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. Nothing contained herein is to be considered as permission, recommendation nor as an inducement to practice any patented invention without permission of the patent owner.



## STORAGE

**Pearlstick™ 5778** 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.**

The information contained herein is believed to be reliable, but no representations, guarantees or warranties of any kind are made as to its accuracy, suitability for particular applications or the results to be obtained. The information often is based on laboratory work with small-scale equipment and does not necessarily indicate end product performance or reproducibility. Formulations presented may not have been tested for stability and should be used only as a suggested starting point. Because of the variations in methods, conditions and equipment used commercially in processing these materials, no warranties or guarantees are made as to the suitability of the products for the applications disclosed. Full-scale testing and end product performance are the responsibility of the user. Lubrizol Advanced Materials, Inc. shall not be liable for and the customer assumes all risk and liability for any use or handling of any material beyond Lubrizol Advanced Materials, Inc.'s direct control. The SELLER MAKES NO WARRANTIES, EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. Nothing contained herein is to be considered as permission, recommendation nor as an inducement to practice any patented invention without permission of the patent owner.

© 2018 The Lubrizol Corporation.  
All rights reserved. All marks are the property of The Lubrizol Corporation.



<http://go.lubrizol.com/EP>