

Lubrizol



**PEARLSTICK™ TPU
FOR SOLVENT-BASED
ADHESIVES
PRODUCT
SELECTION
GUIDE**

**LUBRIZOL
ENGINEERED
POLYMERS**

**ADVANCING MATERIALS.
ELEVATING PERFORMANCE.**

TPU (THERMOPLASTIC POLYURETHANE) FOR SOLVENT-BASED ADHESIVES

IDENTIFICATION	SOLUBILITY							SOLUTION VISCOSITY		SETTING			THERMO-PLASTICITY	MINIMUM ACTIVATION	CRYSTAL-LIZATION	APPLICATION			
	TPU Polyol type	Hardness (Shore A) (ASTM D2240)	Methyl ethyl ketone (MEK)	Acetone	Ethyl acetate	Dimethylformamide (DMF)	Methylene chloride	DMF /MEK 1/1	15% s.c. in MEK (mPa·s)* (MQSA-40A method)	DSC Melting Peak (°C) (ASTM E794-06 method)	DSC Tg Temperature (°C) (ASTM D7426-08)	DSC Crystallization peak (min) (ASTM E794-06)	Range (ASTM D4440-15)	Temperature (°C) (MQSA 11A method)	Range (MQSA 12A method)	• Specially suitable ○ Suitable			
																Footwear	Automotive	Furniture	Primers /others
Pearlstick™ 45-40/05	PCL**	90	YES	YES	NO	YES	NO	YES	500	43	-40	17	Medium	45° C	Fast		○		•
Pearlstick™ 45-40/08	PCL	91	YES	YES	NO	YES	NO	YES	800	43	-40	17	Medium	45° C	Fast		○		•
Pearlstick™ 45-40/11S	PCL	91	YES	YES	NO	YES	NO	YES	1100	44	-40	18	Medium	45° C	Fast	•			
Pearlstick™ 45-40/15	PCL	91	YES	YES	NO	YES	NO	YES	1500	44	-40	19	Medium	45° C	Fast	•			•
Pearlstick™ 45-40/19	PCL	92	YES	YES	NO	YES	NO	YES	1900	44	-40	21	Medium	45° C	Fast	•			•
Pearlstick™ 45-40/27	PCL	93	YES	YES	NO	YES	NO	YES	2700	45	-40	24	Medium	45° C	Fast	•			
Pearlstick™ 45-50/14	PCL Copolymer	90	YES	YES	NO	YES	NO	YES	1400	48	-41	18	Medium / Low	55° C	Very Fast	•	•		
Pearlstick™ 45-50/18	PCL Copolymer	90	YES	YES	NO	YES	NO	YES	1800	49	-41	19	Medium / Low	55° C	Very Fast	•			
Pearlstick™ 45-50/22	PCL Copolymer	91	YES	YES	NO	YES	NO	YES	2200	49	-41	19	Medium / Low	55° C	Very Fast	•			
Pearlstick™ 45-50/29	PCL Copolymer	91	YES	YES	NO	YES	NO	YES	2900	49	-40	21	Medium / Low	55° C	Very Fast	•			
Pearlstick™ 45-60/03	PCL	89	YES	YES	NO	YES	NO	YES	300	45	-40	14	Medium / Low	50° C	Very Fast	•	•		•
Pearlstick™ 45-60/03 SP	PCL	89	YES	YES	NO	YES	NO	YES	300	45	-40	14	Medium / Low	50° C	Very Fast	•	•		•
Pearlstick™ 45-60/08	PCL	90	YES	YES	NO	YES	NO	YES	800	48	-40	17	Medium / Low	50° C	Very Fast		•		
Pearlstick™ 45-60/14	PCL	90	YES	YES	NO	YES	NO	YES	1400	50	-40	17	Medium / Low	50° C	Very Fast	•	•		
Pearlstick™ 45-60/18	PCL	91	YES	YES	NO	YES	NO	YES	1800	52	-40	19	Medium / Low	50° C	Very Fast	•			
Pearlstick™ 45-60/18 SP	PCL	91	YES	YES	NO	YES	NO	YES	1800	52	-40	18	Medium / Low	50° C	Very Fast	•			
Pearlstick™ 45-60/21	PCL	91	YES	YES	NO	YES	NO	YES	2100	52	-40	19	Medium / Low	50° C	Very Fast	•			
Pearlstick™ 45-60/25	PCL	92	YES	YES	NO	YES	NO	YES	2500	53	-41	20	Medium / Low	50° C	Very Fast	•			
Pearlstick™ 45-60/25 SP	PCL	92	YES	YES	NO	YES	NO	YES	2500	53	-41	19	Medium / Low	50° C	Very Fast	•			
Pearlstick™ 45-60/29	PCL	92	YES	YES	NO	YES	NO	YES	2900	53	-41	20	Medium / Low	50° C	Very Fast	•			
Pearlstick™ 45-60/34	PCL	93	YES	YES	NO	YES	NO	YES	3400	53	-41	22	Medium / Low	50° C	Very Fast	•			
Pearlstick™ 45-80/16	PCL	89	YES	YES	NO	YES	NO	YES	1600	44*	-39	175	Medium / Low	NA	Very Slow	•			•
Pearlstick™ 45-90/03	PCL	89	YES	YES	NO	YES	NO	YES	300	44*	-39	80	Medium / Low	40° C	Slow		•		○
Pearlstick™ 45-90/06	PCL	89	YES	YES	NO	YES	NO	YES	600	45*	-39	100	Low	40° C	Slow		○		•
Pearlstick™ 45-90/08	PCL	90	YES	YES	NO	YES	NO	YES	800	43*	-39	110	Low	40° C	Slow		•		
Pearlstick™ 45-90/12	PCL	90	YES	YES	NO	YES	NO	YES	1200	43*	-39	120	Low	40° C	Slow	•			○
Pearlstick™ 48-60/08	Polyester	89	YES	YES	NO	YES	NO	YES	800	58	-40	18	Medium / Low	60° C	Fast				
Pearlstick™ 48-60/15	Polyester	90	YES	YES	NO	YES	NO	YES	1500	58	-40	19	Medium / Low	60° C	Fast	•			
Pearlstick™ 48-60/19	Polyester	90	YES	YES	NO	YES	NO	YES	1900	59	-40	19	Medium / Low	60° C	Fast	•	○		
Pearlstick™ 48-60/25	Polyester	91	YES	YES	NO	YES	NO	YES	2500	59	-40	20	Medium / Low	60° C	Fast	•			
Pearlstick™ 48-60/30	Polyester	91	YES	YES	NO	YES	NO	YES	3000	60	-40	21	Medium / Low	60° C	Fast	•			
Pearlstick™ 40-70/03	Polyester	89	YES	YES	NO	YES	NO	YES	300	59	-39	12	Very Low	60° C	Very Fast		•	○	
Pearlstick™ 40-70/08	Polyester	90	YES	YES	NO	YES	NO	YES	800	59	-39	13	Very Low	60° C	Very Fast		•		○
Pearlstick™ 40-70/14	Polyester	91	YES	YES	NO	YES	NO	YES	1400	59	-39	14	Very Low	60° C	Very Fast	•			
Pearlstick™ 40-70/18	Polyester	91	YES	YES	NO	YES	NO	YES	1800	59	-39	14	Very Low	60° C	Very Fast	•			•
Pearlstick™ 40-70/25	Polyester	92	YES	YES	NO	YES	NO	YES	2500	59	-40	15	Very Low	60° C	Very Fast	•	○		
Pearlstick™ 40-70/33	Polyester	93	YES	YES	NO	YES	NO	YES	3300	59	-40	15	Very Low	60° C	Very Fast	•			
Pearlstick™ 46-10/01	Polyester	89	YES	YES	YES	YES	YES	YES	100	57	-39	10	High	50° C	Fast			○	•
Pearlstick™ 46-10/06	Polyester	89	YES	YES	YES	YES	YES	YES	600	58	-39	16	High	50° C	Fast	•	○	○	○
Pearlstick™ 46-10/12	Polyester	90	YES	YES	YES	YES	YES	YES	1200	58	-40	17	High	50° C	Fast			•	○
Pearlstick™ 46-10/16	Polyester	91	YES	YES	YES	YES	YES	YES	1600	59	-40	17	High	50° C	Fast		○	•	

* Average value. Please consult the Technical datasheet. ** PCL=Polycaprolactone Copolyester

LUBRIZOL GLOBAL PRESENCE

Our global presence means we have the application and development laboratories (with technical service ability) already in place, as well as worldwide production capabilities and renowned customer service. We are also a specialty producer of performance coatings and other unique products for apparel. Teaming with Lubrizol simplifies a complex global supply chain.

Americas

Lubrizol Advanced
Materials, Inc.
9911 Brecksville Road
Cleveland, Ohio 44141-3201
USAPhone: +1 888 234 2436

Asia

Lubrizol Specialty Chemicals
(Shanghai) Co., Ltd.
10F, Park Center International
1088 Fang Dian Road
Shanghai PRC 201204
Phone: +86 21 3866 0366

Europe, Middle East, India & Africa

Lubrizol Advanced Materials Spain S.L.
Gran Vial, no. 17
08160 Montmeló (Barcelona), Spain
Phone: +34 93 579 9522
Technology Center – Adhesives



To learn more, contact us at engineeredpolymers@lubrizol.com
or visit www.lubrizol.com/Engineered-Polymers

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