

A person in silhouette is climbing a vertical rock face. The climber is positioned on the right side of the frame, reaching up with their right arm. The rock face is textured and occupies the left and center of the image. The background is a soft, hazy sunset sky with warm tones of orange and yellow. The overall image has a dark, moody atmosphere.

Product Selection Guide

PEARLSTICK™ TPU
**FOR SOLVENT-BASED
ADHESIVES**

Lubrizol

Engineered Polymers

TPU (THERMOPLASTIC POLYURETHANE) FOR SOLVENT-BASED ADHESIVES

IDENTIFICATION		SOLUBILITY						SOLUTION VISCOSITY		SETTING			THERMOPLASTICITY	MINIMUM ACTIVATION	CRYSTALLIZATION	APPLICATION			
Grades	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™ 45-60/03	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™ 45-60/21	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™ 45-60/34	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			•	○

* 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.

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