

# Estane® 5713 TPU

Thermoplastic Polyurethane Elastomer (Polyester)

Lubrizol Advanced Materials, Inc.

Message:

Type: Polyester Thermoplastic Polyurethane (TPU)  
Special Feature: Hot Melt and Solution Grade Adhesive with Excellent High Heat Resistance  
Processes: Extrusion, Solution Cast Films  
Solubility: Estane 5713 is soluble in THF or THF/MEK blends. Higher heat resistance, tensile and bond strengths can be achieved with the addition of diisocyanates, peroxides, epoxies and polyfunctional amides.

General Information			
Features	High Heat Resistance		
Uses	Adhesives		
RoHS Compliance	RoHS Compliant		
Appearance	Amber		
Forms	Pellets		
Processing Method	Cast Film		
	Extrusion		

Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.20	g/cm <sup>3</sup>	ASTM D792

Hardness	Nominal Value	Unit	Test Method
Durometer Hardness (Shore D)	40		ASTM D2240

Films	Nominal Value	Unit	Test Method
Peel Strength <sup>1</sup>	7.2	kN/m	
Ring and Ball Softening Point	170	°C	ASTM E28-92
Brookfield Viscosity - 15% T.S. THF (23°C) <sup>2</sup>	0.800 to 1.30	Pa · s	
Gradient Bar Tack Temperature	84	°C	
Open Time	> 5.3	min	ASTM D4497-94
T-Peel			ASTM D1876
Aluminum Foil	400.0	N/m	
Mylar Film	5300.0	N/m	

Elastomers	Nominal Value	Unit	Test Method
Tensile Stress			ASTM D412
100% Strain	4.70	MPa	
300% Strain	9.00	MPa	
Tensile Strength (Break)	37.9	MPa	ASTM D412
Tensile Elongation (Break)	600	%	ASTM D412

Thermal	Nominal Value	Unit	Test Method
Glass Transition Temperature <sup>3</sup>	-43.0	°C	DSC
Vicat Softening Temperature	95.0	°C	ASTM D1525

Fill Analysis	Nominal Value	Unit	Test Method
Melt Viscosity (204°C)	130	Pa·s	ASTM D1084
NOTE			
1.	TP-141		
2.	RVT Spindle #2, 20 RPM		
3.	10°C/min		

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#### Recommended distributors for this material

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