

# PEARLCOAT® 127K

Thermoplastic Polyurethane Elastomer (Polyester)

Lubrizol Advanced Materials, Inc.

## Message:

PEARLCOAT® 127K is a polyester-based TPU, supplied in form of translucent, colourless pellets, combining hardness with excellent low temperature flexibility and medium softening point.

PEARLCOAT® 127K is used in melt coatings on textile substrates for conveyor belts, belting, etc. end uses, obtained by extrusion, calendering or sintering (in this last case the product is previously ground, so as to be in powder form).

General Information			
Features	Flexibility at low temperatures Medium hardness		
Uses	Conveyor belt repair Conveyor accessories Textile applications Coating application		
Agency Ratings	EC 1907/2006 (REACH) FDA 21 CFR 177.2600		
Appearance	Translucent Colorless		
Forms	Particle		
Processing Method	Extrusion Sintering Calendering		
Physical	Nominal Value	Unit	Test Method
Specific Gravity			
--	1.20	g/cm <sup>3</sup>	ASTM D792
20°C	1.20	g/cm <sup>3</sup>	ISO 2781
Moisture Content	< 1000	ppm	Internal method
Hardness	Nominal Value	Unit	Test Method
Durometer Hardness (Shore A)	92		ASTM D2240, ISO 868
Mechanical	Nominal Value	Unit	Test Method
Abrasion Loss	30.0	mm <sup>3</sup>	ISO 4649
Extruder Screw L/D Ratio	25:1		
Extruder Screw Compression Ratio	3:1		
Elastomers	Nominal Value	Unit	Test Method

Tensile Stress			ASTM D412, ISO 527
100% strain	8.00	MPa	ASTM D412, ISO 527
300% strain	16.0	MPa	ASTM D412, ISO 527
Tensile Strength (Yield)	30.0	MPa	ASTM D412, ISO 527
Tensile Elongation (Break)	430	%	ASTM D412, ISO 527
<b>Thermal</b>	<b>Nominal Value</b>	<b>Unit</b>	<b>Test Method</b>
Glass Transition Temperature	-26.0	°C	ISO 11357-2
Melting Temperature <sup>1</sup>	155 - 165	°C	Internal method
<b>Extrusion</b>	<b>Nominal Value</b>	<b>Unit</b>	
Drying Temperature	90.0 - 100	°C	
Drying Time	1.0 - 2.0	hr	
Cylinder Zone 1 Temp.	150 - 160	°C	
Cylinder Zone 2 Temp.	160 - 170	°C	
Cylinder Zone 3 Temp.	170 - 180	°C	
Cylinder Zone 4 Temp.	175 - 185	°C	
Die Temperature	175 - 185	°C	
<b>Extrusion instructions</b>			
Cooling: AirSpeed: 50 rpm Thickness Die: 0.2 mm			
<b>NOTE</b>			

1. Temperature at which MFI = 10 g/10 min @ 21.6 kg

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#### Recommended distributors for this material

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