

# Pearlbond™ DIPP-119

Thermoplastic Polyurethane Elastomer (Polycaprolactone)

Lubrizol Advanced Materials, Inc.

## Message:

Pearlcoat® DIPP-119 is polycaprolactone copolyester based thermoplastic polyurethane, supplied in form of translucent pellets. Featuring low melting point and excellent transparency, this product offers excellent flexibility, elasticity and easy processing. Ideally used for extrusion or compounding with PVC.

Pearlcoat® DIPP-119 is used mostly in extrusion applications where low melting point as well as improved adhesion over polar substrates is highly appreciated. It is ideal for PVC compounding. It is also used in solvent coatings on textile substrates.

Pearlcoat® DIPP-119 is soluble in MEK, DMF and THF. Diluents such as cyclohexanone and toluene can be added.

General Information			
Features	High elasticity Workability, good Good flexibility Good adhesion Definition, high		
Uses	Textile applications Composite Coating application Fabric coating		
Agency Ratings	EC 1907/2006 (REACH)		
Appearance	Translucent		
Forms	Particle		
Processing Method	Composite Extrusion Extrusion coating		
Physical	Nominal Value	Unit	Test Method
Specific Gravity			
--	1.16	g/cm <sup>3</sup>	ASTM D792
20°C	1.16	g/cm <sup>3</sup>	ISO 2781
Moisture Content	< 1000	ppm	Internal method
Hardness	Nominal Value	Unit	Test Method
Durometer Hardness (Shore A)	70		ASTM D2240, ISO 868
Mechanical	Nominal Value	Unit	Test Method
Abrasion Loss	45.0	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	3.00	MPa	ASTM D412, ISO 527
300% strain	4.00	MPa	ASTM D412, ISO 527
Tensile Strength (Yield)	20.0	MPa	ASTM D412, ISO 527
Tensile Elongation (Break)	750	%	ASTM D412, ISO 527
Tear Strength			
-- <sup>1</sup>	50.0	kN/m	ASTM D624
--	50	kN/m	ISO 34-1
Thermal	Nominal Value	Unit	Test Method
Glass Transition Temperature	-30.0	°C	ISO 11357-2
Melting Temperature <sup>2</sup>	118 - 128	°C	Internal method
Extrusion	Nominal Value	Unit	
Drying Temperature	70.0 - 80.0	°C	
Drying Time	1.0 - 2.0	hr	
Cylinder Zone 1 Temp.	125 - 135	°C	
Cylinder Zone 2 Temp.	150 - 160	°C	
Cylinder Zone 3 Temp.	165 - 175	°C	
Cylinder Zone 4 Temp.	170 - 180	°C	
Die Temperature	150 - 160	°C	
Extrusion instructions			
Cooling: AirSpeed: 50 rpmThickness Die: 0.2 mm			
NOTE			
1.	C mould		
2.	Temperature at which MFI = 10 g/10 min @ 21.6 kg		

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