



# DARAN<sup>®</sup> SL159

## PVdC Latex High Barrier/Heat Seal Coating

Daran SL159 is a high barrier, crystalline polymer latex with good heat seal strength at relatively low sealing temperatures. The dried coating quickly develops resistance to haze when exposed to solvent inks and laminating adhesives. This latex can be applied by conventional coating techniques of direct reverse gravure or wire wound metering rods. Daran SL159 is pre-formulated with a wax emulsion. Pigments and other additives can be added to improve slip, block resistance, and other surface characteristics.

	<u>English Units</u>	<u>Metric Units</u>
<b>Typical Latex Properties</b>		
Total Solids	54 %	54 %
pH	~2.0	~2.0
Particle Size	160 nm	160 nm
Viscosity (LVF, #1 @ 60 rpm)	12 centipoise	12 mPa•sec
Latex Density	10.5 lbs./gallon	1.26 kg/dm <sup>3</sup>
Surface Tension	42 dynes/cm	42 mN/m
Minimum film-forming Temperature	65 °F	19 °C
Mechanical Stability	Excellent	Excellent
Alcohol Tolerant (2% IPA)	No	No
Stability on freezing	none	none
Shelf Life at 70°F <sup>1</sup>	9 months	9 months
Recommended Storage Temperature	40-85 °F	5-30 °C

<b>Typical Film Properties</b>		
Water Vapor Transmission Rate (ASTM E-96)	0.055 g•mil/100in <sup>2</sup> •day (100°F and 90%RH)	22 g•μm/m <sup>2</sup> •day (38°C and 90%RH)
Oxygen Transmission Rate	0.10 cm <sup>3</sup> •mil/100in <sup>2</sup> •day•atm (77°F and 55%RH)	39 cm <sup>3</sup> •μm/m <sup>2</sup> •day•atm (25°C and 55%RH)
Carbon Dioxide Transmission Rate	0.2 cm <sup>3</sup> •mil/100in <sup>2</sup> •day•atm (73°F)	79 cm <sup>3</sup> •μm/m <sup>2</sup> •day•atm (23°C)
Rate of Crystallization at room temperature (Solvent Resistance)	10 days	10 days
Minimum Sealing Temperature	230 °F (1sec at 5 psi)	110 °C (1sec at 35 kPa)
Glass Transition Temperature, T <sub>g</sub>	64-66 °F	18-19 °C

1. Shelf life will vary depending on storage conditions.

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