

## VINPOL™ LH00535

### Linear Low Density Polyethylene

Melt Index: 0.50

Density: 0.935

**VINPOL LH00535** is a medium density ethylene 1-hexene copolymer offering excellent processing and tensile, impact and puncture film properties. This combination of properties position this resin as a high pressure LDPE replacement, but with superior drawdown and toughness. This product can also be employed in medium and high density Wire and Cable (W&C) jacketing. It has a good combination of mechanical strength, abrasion and ESCR performance. Sufficient carbon black or UV stabilizer should be added to meet cable jacketing applications. Applications include food packaging, lamination film, multilayer packaging film, shrink film, form fill and seal packaging and heavy-duty bags. W&C applications include communications cable, high, medium and low voltage jacketing.

Resin Property	Typical Value	Units	Test Method
Melt Index, 2.16 Kg at 190 ° C	0.5	g/10 min	ASTM D-1238
Density	0.935	g/cc	ASTM D-792
Peak Melting Point	253 (123)	°F (°C)	Supplier Method
Vicat Softening Point	246 (119)	°F (°C)	ASTM D-1525
*Tensile Strength at Yield, MD/TD	2,400 (17)/2,800 (20)	psi (MPa)	ASTM D-882
*Tensile Strength at Break, MD/TD	8,400 (60)/6,700 (46)	psi (MPa)	ASTM D-882
*Elongation at Break, MD/TD	550/790	%	ASTM D-882
*1% Secant Modulus, MD/TD	62,000 (430)/75,000 (520)	psi (MPa)	ASTM D-882
*Dart Drop Impact	70	g	ASTM D-1709A
*Elmendorf Tear Strength, MD/TD	20/610	g	ASTM D-1922
*Puncture Force	11 (48)	lbf (N)	Supplier Method
*Puncture Energy	20 (2.3)	In-lb (J)	Supplier Method
*Gloss (45°)	40		ASTM D-2457
*Haze	14	%	ASTM D-1003
**Tensile Strength at Yield, 2 in/min (50 mm/min)	2,800 (19)	psi (MPa)	Supplier Method
**Tensile Strength at Break, 2 in/min (50 mm/min)	5,700 (39)	psi (MPa)	Supplier Method
**Elongation at Yield, 2 in/min (50 mm/min)	10	%	Supplier Method
**1% Secant Modulus, 0.051 in/min (1.3 mm/min)	80,000 (550)	psi (MPa)	Supplier Method
**Environmental Stress Crack Resistance, Cond. B, 10% Igepal, F50	>1000	Hrs	Supplier Method
**Durometer Hardness	54	Shore D	Supplier Method
**Volume Resistivity (500 V)	7.5E+14	Ohms*m	IEC 62631-3-1
**Relative Permittivity (1 MHz)	2.28	-	IEC 62631-3-1
**Dissipation Factor (1 MHz)	1.3E-4	-	IEC 62631-3-1

\*Film (1 mil/25.4 micron) made on a 2.5 inch (63.5mm) blown film line with a 2.5:1 BUR, a melt temperature of 380-400°F (193-204°C), a 30 mil (0.76mm) die gap at a rate of 10 lbs/hr/in die circumference (1.79 kg/hr/cm).

\*\*Properties measured on Compression Molded specimens

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