Petrothene

NA963083

Low Density Polyethylene
Film Extrusion Grade
Melt Index: 0.70 Density: 0.921

Applications

Petrothene NA963083 is selected by customers for use in a wide variety of industrial film applications where high impact strength and excellent drawdown are needed. NA963083 exhibits uniformity, ease of processing and good tensile strength.

Regulatory Status

NA963083 meets the requirements of the Food and Drug Administration regulation, 21 CFR 177.1520. This regulation allows the use of this olefin polymer "... in articles or components of articles intended for use in contact with food..." Specific limitations or conditions of use may apply. Contact your Equistar product safety representative for more information.

Processing Techniques

Generally recommended extrusion conditions include a melt temperature range of 310°-350°F (155°-177°C) and a blow-up ratio range of 1.8-2.5:1. Drawdown to gauges below 1.0 mils (<25 microns) is possible at commercial rates when proper techniques are used. Specific recommendations for processing NA963083 can only be made when the processing conditions, equipment and end use are known.

Typical Properties

Property	Nominal Value	Units	ASTM Test Method
Melt Index	0.70	g/10 min	D1238
Base Resin Density	0.919	g/cc	D1505
Density	0.921	g/cc	D1505
Vicat Softening Point	90	°C	D1525
Film*			
Dart Drop Impact Strength, F_{50}	130	g	D1709
Tensile Strength, MD (TD)	3,400 (2,400)	psi	D882
Elongation, MD (TD)	160 (480)	%	D882
1% Secant Modulus, MD (TD)	26,000 (32,000)	psi	E111
Elmendorf Tear Strength, MD (TD)	300 (180)	g	D1922
Molding			
Low Temperature Brittleness, F_{50}	-75	°C	D746
Tensile Strength @ Yield (Break)	1,550 (1,650)	psi	D638
Elongation @ Yield (Break)	100 (700)	%	D638
Hardness, Shore D	46		D2240

Product	**NA963083**
Slip (ppm)	None
Antiblock (ppm)	4,000

* Data obtained from film produced on a 3½" (89 mm) blown film line, commercially available 8" (203 mm) die, 350°F (177°C) melt extrusion temperature, 2:1 BUR, 1.25 mil (32 micron) gauge, 0.025" die gap at 150 lb/hr.

These are typical values not to be construed as specification limits.