Petrothene

NA490177

Low Density Polyethylene
Film Extrusion Grade
Melt Index: 0.30 Vinyl Acetate Content: 4.5%

Applications

Petrothene NA490177 is a LDPE/EVA copolymer resin selected by customers for use in specialty films. NA490177 contains antiblock and is used to produce film with excellent puncture resistance, impact strength, heat sealability, clarity and low temperature flexibility. Typical applications include frozen food packaging, bundling and heavy-duty bags.

Regulatory Status

NA490177 meets the requirements of the Food and Drug Administration, regulation 21 CFR 177.1350. This regulation allows the use of this ethylene vinyl acetate copolymer "...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

NA490177 has excellent processability over a wide range of extrusion conditions. However, recommended conditions are melt temperatures between 330°- 430°F (166°- 221°C) with a blow-up ratio between 1.7-4.0:1. Drawdown to 1.25 mils is not uncommon at commercial rates when proper extrusion equipment and techniques are used. Specific recommendations for processing NA490177 can be made only when the end use application, required properties and the processing equipment are known.

Typical Properties

Property	Nominal Value	Units	ASTM Test Method
Melt Index	0.30	g/10 min	D1238
Vinyl Acetate Incorporated	4.5	%	
Density	0.926	g/cc	D1505
Base Resin Density	0.923	g/cc	D1505
Vicat Softening Point	88	°C	D1525
Film*			
Dart Drop Impact Strength, F_{50}	320	g	D1709
Tensile Strength, MD (TD)	3,200 (3,000)	psi	D882
Elongation, MD (TD)	370 (550)	%	D882
1% Secant Modulus, MD (TD)	19,000 (23,000)	psi	E111
Elmendorf Tear Strength, MD (TD)	150 (250)	g	D1922

Product	NA490177
Slip (ppm)	None
Antiblock (ppm)	6,000

*Data obtained from film produced on a 3½" (89 mm) blown film line, commercially available 8" (203 mm) die, 430°F (221°C) melt extrusion temperature, 2:1 BUR, 2.0 mil (51 micron) gauge, 0.025" die gap at 170 lb/hr.

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