Petrothene

NA480

Low Density Polyethylene
Film Extrusion Grade
Melt Index: 0.25 Vinyl Acetate Content: 4.5%

Applications

Petrothene NA480 is a series of LDPE/EVA copolymer resins selected by customers for specialty films. NA480 produces 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

The basic resin NA480 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 further information.

Processing Techniques

NA480 provides 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 NA 480 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	0.25	g/10 min	D1238
Vinyl Acetate Incorporated	4.5	%	
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

Products	NA480145	NA480178
Slip (ppm)	1,000	None
Antiblock (ppm)	6,000	12,000

*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.