

Petrothene

NA443



Low Density Polyethylene
Film Extrusion Grade

Melt Index: 1.2 Vinyl Acetate Content: 4.5%

Applications

Petrothene NA443 is a series of LDPE/EVA copolymer resins selected by customers for high impact/high clarity packaging applications.

Regulatory Status

The base resin NA443 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

Optimum properties are obtained over a broad range of extrusion conditions at melt temperatures between 330°- 380°F (166°- 194°C), and a blow-up ratio between 1.7-3.0:1. Specific recommendations for processing NA443 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	1.2		g/10 min	D1238
Vinyl Acetate Content	4.5		%	
Base Resin Density	0.927		g/cc	D1505
Vicat Softening Point	88		°C	D1525
Film	Blown¹	Cast²		
Haze	3	6.0	%	D1003
Gloss, 45°	77	60		D2457
Tensile Strength, MD (TD)	4,000 (2,900)	5,300 (2,700)	psi	D882
Elongation, MD (TD)	350 (550)	150 (630)	%	D882
1% Secant Modulus, MD	20,000 (18,000)	22,000 (29,000)	psi	E111
Dart Drop Impact Strength, F ₅₀	150	n/a	g	D1709
Elmendorf Tear Strength, MD (TD)	140	160	g	D1922

Product NA443023

Slip (ppm)	None
Antiblock (ppm)	None

¹ Data obtained from film produced on a 3½" (89 mm) blown film line, commercially available 8" (203 mm) die, 375°F (191°C) melt extrusion temperature, 2:1 BUR, 1.25 mil (32 micron) gauge, 0.025" die gap at 130 lb/hr.

² Optical properties are given for NA443 with high slip and high antiblock.

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