

Petrothene

NA420

Low Density Polyethylene

Film Extrusion Grade

Melt Index: 2.5 Vinyl Acetate Content: 2.5%



Applications

Petrothene NA420 is a series of LDPE/EVA copolymer resins selected by customers for high impact and clarity packaging film.

Regulatory Status

The base resin NA420 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

Recommended extrusion conditions are 330° - 380°F (166° - 194°C) melt temperatures and a blow-up ratio between 1.7-3.0:1. Specific recommendations for the processing of NA420 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	2.5	g/10 min	D1238
Vinyl Acetate Content	2.5	%	
Base Resin Density	0.924	g/cc	D1505
Vicat Softening Point	90	°C	D1525
Film*			
Haze ¹	4.5	%	D1003
Gloss, 45° ¹	73		D2457
Tensile Strength @ Break, MD (TD)	3,300 (2,400)	psi	D882
Elongation @ Break, MD (TD)	350 (550)	%	D882
1% Secant Modulus, MD (TD)	20,000 (25,000)	psi	D882
Dart Drop Impact Strength, F ₅₀	80	g	D1709
Elmendorf Tear Strength, MD (TD)	220 (250)	g	D1922
Product	NA420000	NA420013X01	NA420234
Slip (ppm)	None	None	None
Antiblock (ppm)	None	None	3,000

* 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.

¹ Optical properties are given for NA420127 (medium slip, medium antiblock).