EQUISTAR
A Lyondell Company

Petrothene®

NA940

Low Density Polyethylene
Film Extrusion Grade
Melt Index 0.25 Density 0.918

Applications

PETROTHENE NA940 is a series of resins designed for heavy duty film applications. Superior puncture resistance combined with excellent impact properties make NA940 an ideal choice for bags used to package fertilizer, peat moss, decorative stone and agricultural and construction materials.

Typical Properties

Property	Nominal Value	Units	ASTM Test Method
Melt Index	0.25	g/10 min	D 1238
Base Resin Density	0.918	g/cc	D 1505
Vicat Softening Point	90	°C	D 1525
Film*			
Dart Drop Impact Strength, F_{50}	220	g	D 1709
Tensile Strength, MD (TD)	3,000 (2,800)	psi	D 882
Elongation, MD (TD)	300 (500)	%	D 882
1 % Secant Modulus, MD (TD)	24,000 (27,000)	psi	E 111
Elmendorf Tear Strength, MD (TD)	220 (200)	g	D 1922
Molding			
Low Temperature Brittleness, F_{50}	<-76	°C	D 746
Tensile Strength @ Break	2,100	psi	D 638
Elongation @ Break	>600	%	D 638
Flexural Modulus	34,000	psi	D 790
Hardness, Shore D	50		D 2240
Environmental Stress Crack Resistance, # Failures in 100% Igepal®	0 in 7 days		D 1693

Products	NA940000	NA940085	NA940094
Slip	None	None	Low
Antiblock	None	High	High

These are typical values and not to be construed as specific product limits.

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

® Igepal is a registered trademark of the Rhone -Poulenc Co., Inc.

See Page 2 for Additional Information

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Regulatory Status

The basic resin NA940 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 sales representative for more information regarding the suitability of specific products for specific applications.

Processing Techniques

NA 940 has been designed for excellent processability, bubble stability and good heat sealing over a wide range of extrusion conditions. Optimum properties are found at melt temperatures of 330°-430°F (165°-221°C) and blow-up ratios between 1.8:1 and 2.5:1. Drawdown to 1.5 mil (38.1 microns) is possible at commercial rates when proper extrusion techniques are used. Specific recommendations for processing NA 940 can be made only when the end use applications, required properties and processing equipment are known. For exact recommendations, contact your Equistar sales representative.

LYONDELL

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