

Petrothene NA980

Low Density Polyethylene

Film Extrusion Grade

Flow Index 0.25

Density 0.920

Applications

PETROTHENE NA 980 is designed specifically for the shrink packaging industry and has a balance of properties over a wide range of blow-up ratios. NA 980 is also recommended for bundling, pallet wrap and heavy-duty liner where clarity is important. Excellent bubble stability, melt strength, impact and shrinkage make NA 980 an outstanding polymer for all these demanding applications.

Regulatory Status

NA 980 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 further information regarding the suitability of specific products for specific applications.

Processing Techniques

Optimum properties are obtained at melt temperatures between 330°-430°F (165°-221°C) and a blow-up ratio between 1.7-3.0:1, using proper techniques and equipment. Specific recommendations for processing NA 980 can be made only when the end use applications, required properties and processing equipment are known. For exact recommendations, contact your Equistar sales representative.

Typical Properties*

Property	Value	Units	ASTM Test Method
Melt Index	0.25	g/10 min	D 1238
Density	0.920	g/cc	D 1505
Vicat Softening Point	93	°C	D 1525
Film**			
Dart Drop Impact Strength, F ₅₀	180	9	D 1709
Tensile Strength, MD (TD)	3,000 (2,750)	psi	D 882
Elongation, MD (TD)	310 (430)	%	D 882
1% Secant Modulus, MD (TD)	30,000 (35,000)	psi	E 111
Molding			
Low Temperature Brittleness, F ₅₀	-75	°C	D 746
Tensile Strength @ Yield	1,420	psi	D 638
Tensile Strength @ Break	2,600	psi	
Elongation @ Yield	100	%	D 638
Elongation @ Break	700	%	
Hardness, Shore D	45		D 2240
Product			
	NA 980-000		
Slip	None		
Antiblock	None		

* 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, 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.