Technical Data Sheet

Petrothene NA983085

Low Density Polyethylene

Product Description

Petrothene NA983085 is a low density homopolymer resin selected by customers for use in shrink packaging, bundling, pallet wrap and heavy-duty liner applications. Excellent bubble stability, melt strength, impact and shrinkage are key attributes of NA983085.

Application	Agriculture Film; Bags & Pouches; Can Liners; Film Wrap; Food Packaging Film; Heavy Duty Packaging; Liner Film; Shrink Film; Specialty Film; Textile Packaging Film
Market	Flexible Packaging
Processing Method	Blown Film

Typical Properties	Nominal Value	English Units	Nominal Value	SI Units	Test Method
Physical					
Melt Flow Rate, (190 °C/2.16 kg)	0.25	g/10 min	0.25	g/10 min	ASTM D1238
Base Resin Density, (23 °C)	0.920	g/cm³	0.920	g/cm³	ASTM D1505
Product Density, (23 °C)	0.922	g/cm³	0.922	g/cm³	ASTM D1505
Mechanical					
Tensile Strength at Break	2600	psi	17.9	MPa	ASTM D638
Tensile Strength at Yield	1420	psi	9.79	MPa	ASTM D638
Tensile Elongation at Break	700	%	700	%	ASTM D638
Tensile Elongation at Yield	100	%	100	%	ASTM D638
Film					
Dart Drop Impact Strength, F50	180	g	180	g	ASTM D1709
Tensile Strength at Break					
MD	3000	psi	20.7	MPa	ASTM D882
TD	2800	psi	19.3	MPa	ASTM D882
Tensile Elongation at Break					
MD	310	%	310	%	ASTM D882
TD	430	%	430	%	ASTM D882
1% Secant Modulus					
MD	30000	psi	207	MPa	ASTM D882
TD	35000	psi	241	MPa	ASTM D882
Water Vapor Transmission Rate			10	g/m²/day	ASTM F1249
Hardness					
Shore Hardness, (Shore D)	45		45		ASTM D2240
Thermal					
Vicat Softening Temperature	199	°F	93	°C	ASTM D1525
Low Temperature Brittleness, F_{50}	-103	°F	-75	°C	ASTM D746
Additive					
Slip	None		None		LYB Method
Antiblock	4000	ppm	4000	ppm	LYB Method