Petrothene® NA963

Low Density Polyethylene

LyondellBasell Industries

Message:

Applications:
PETROTHENE NA963 is a series of resins formulated with special antiblock additive and designed for a wide variety of industrial film applications where high impact strength and excellent drawdown are needed. NA963 exhibits uniformity, ease of processing and good tensile strength.
Regulatory Status:
The basic resin NA963 meets the requirements of the Food and Drug Administration, 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.

General Information	
Features	Impact resistance, high Workability, good Good stripping Good strength Compliance of Food Exposure
Uses	Films Industrial application
Agency Ratings	FDA 21 CFR 177.1520
Forms	Particle
Processing Method	Film extrusion Blow film

Physical	Nominal Value	Unit	Test Method
Density	0.919	g/cm³	ASTM D1505
Melt Mass-Flow Rate (MFR) (190°C/2.16 kg)	0.70	g/10 min	ASTM D1238
Hardness	**Nominal Value**	**Unit**	**Test Method**
Durometer Hardness (Shore D)	46		ASTM D2240
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Strength			ASTM D638
Yield	10.7	MPa	ASTM D638
Fracture	11.4	MPa	ASTM D638
Tensile Elongation			ASTM D638
Yield	100	%	ASTM D638
Fracture	700	%	ASTM D638
Films	**Nominal Value**	**Unit**	**Test Method**
Film Thickness - Tested	32	µm	

secant modulus			ASTM D882
1% secant, MD: 32 µm	179	MPa	ASTM D882
1% secant, TD: 32 µm	221	MPa	ASTM D882
Tensile Strength			ASTM D882
MD: Yield, 32 µm	23.4	MPa	ASTM D882
TD: Yield, 32 µm	16.5	MPa	ASTM D882
Tensile Elongation			ASTM D882
MD: Broken, 32 µm	160	%	ASTM D882
TD: Broken, 32 µm	480	%	ASTM D882
Dart Drop Impact (32 µm)	130	g	ASTM D1709
Elmendorf Tear Strength			ASTM D1922
MD : 32 µm	300	g	ASTM D1922
TD : 32 µm	180	g	ASTM D1922
Thermal	Nominal Value	Unit	Test Method
Brittleness Temperature	-75.0	°C	ASTM D746
Vicat Softening Temperature	90.0	°C	ASTM D1525
Extrusion	Nominal Value	Unit	
Melt Temperature	154 - 177	°C	
Extrusion instructions			

Generally recommended extrusion conditions include a melt temperature range of 310°-350°F (155°-177°C) and a blow-up ratio range of 1.8-2.5:1. Drawdown to gauges below 1.0 mils (<25 microns) is possible at commercial rates when proper techniques are used.

Recommended distributors for this material

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