- RMS-418

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MATERIAL SPECIFICATION (RMS)
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Petrothene® NA960000

Low Density Polyethylene
LyondellBasell Industries

IDES | Prospector

Product Description
PETROTHENE NA 960 is a series of resins designed for a wide variety of industrial film applications where high impact strength and excellent drawdown are needed. NA 960 exhibits good uniformity, ease of processing and good tensile strength.

General		
Material Status	• Commercial: Active	
Availability	• Asia Pacific • Europe	• North America • South America
Features	• Food Contact Acceptable • Good Drawdown	• Good Processability • High Impact Resistance
Uses	• Film	
Agency Ratings	• FDA 21 CFR 177.1520	
Forms	• Pellets	
Processing Method	• Film Extrusion	

Physical	Nominal Value (English)	Nominal Value (SI)	Test Method
Density	0.920 g/cm³	0.920 g/cm³	ASTM D1505
Melt Mass-Flow Rate (MFR) (190°C/2.16 kg)	1.0 g/10 min	1.0 g/10 min	ASTM D1238
Mechanical	**Nominal Value (English)**	**Nominal Value (SI)**	**Test Method**
Tensile Strength [2] (0.0750 in (1.91 mm))	2100 psi	14.5 MPa	ASTM D638
Tensile Elongation (Break)	660 %	660 %	ASTM D638
Films	**Nominal Value (English)**	**Nominal Value (SI)**	**Test Method**
Film Thickness - Tested	1.3 mil	32 µm	
Secant Modulus			ASTM D882
MD: Blown Film	29000 psi	200 MPa	
TD: Blown Film	34000 psi	234 MPa	
Tensile Strength			ASTM D882
MD: Yield, 1.3 mil (32 µm), Blown Film	3500 psi	24.1 MPa	
TD: Yield, 1.3 mil (32 µm), Blown Film	2400 psi	16.5 MPa	
Tensile Elongation			ASTM D882
MD: Break, 1.3 mil (32 µm), Blown Film	200 %	200 %	
TD: Break, 1.3 mil (32 µm), Blown Film	500 %	500 %	
Dart Drop Impact			ASTM D1709
1.3 mil (32 µm), Blown Film	120 g	120 g	
Elmendorf Tear Strength			ASTM D1922
MD: 1.3 mil (32 µm), Blown Film	300 g	300 g	
TD: 1.3 mil (32 µm), Blown Film	130 g	130 g	
Thermal	**Nominal Value (English)**	**Nominal Value (SI)**	**Test Method**
Vicat Softening Temperature	198 °F	92.0 °C	ASTM D1525

Additional Information
Film data obtained from film produced in a 3 1/2" (89 mm) blown film line, commercially available 8" (203 mm) die, 350°F (177°C) melt extrusion temperature, 2:1 BUR, 1.25 mil (32 micron) gauge, 0.025" die gap at 150 lb/hr.

Notes

[1] Typical properties: these are not to be construed as specifications.

[2] Type IV, 20 in/min (510 mm/min)

Revision History
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