Technical Data Sheet

Petrothene NA963083

Low Density Polyethylene

Product Description

Petrothene NA963083 is selected by customers for use in a wide variety of industrial film applications where high impact strength, excellent drawdown, and moderate shrinkage are needed. NA963083 exhibits good bubble stability, ease of processing, good tensile strength and good shrinkage.

Regulatory Status

For regulatory compliance information, see *Petrothene* NA963083 Product Stewardship Bulletin (PSB) and Safety Data Sheet (SDS).

Status	Commercial: Active
Availability	North America
Application	Agriculture Film; Bags & Pouches; Bottles and Vials; Bottles For Consumer Goods; Bottles for Industrial Use; Can Liners; Caps & Closures; Film Wrap; Food Packaging Film; Lamination Film; Liner Film; Opaque Containers; Secondary Packaging; Shrink Film; Surface Protection Film
Market	Flexible Packaging; Rigid Packaging
Processing Method	Blown Film; Extrusion Blow Molding

Typical Properties	Nominal Value	English Units	Nominal Value	SI Units	Test Method
Physical					
Melt Flow Rate, (190 °C/2.16 kg)	0.70	g/10 min	0.70	g/10 min	ASTM D1238
Base Resin Density, (23 °C)	0.919	g/cm³	0.919	g/cm³	ASTM D1505
Product Density, (23 °C)	0.921	g/cm³	0.921	g/cm³	ASTM D1505
Mechanical					
Tensile Strength at Break	1650	psi	11.4	MPa	ASTM D638
Tensile Strength at Yield	1550	psi	10.7	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	130	g	130	g	ASTM D1709
Tensile Strength at Break					
MD	3400	psi	23.4	MPa	ASTM D882
TD	2400	psi	16.5	MPa	ASTM D882
Tensile Elongation at Break					
MD	160	%	160	%	ASTM D882
TD	480	%	480	%	ASTM D882
1% Secant Modulus					
MD	26000	psi	179	MPa	ASTM D882
TD	32000	psi	221	MPa	ASTM D882
Elmendorf Tear Strength					
MD	300	g	300	g	ASTM D1922
TD	180	g	180	g	ASTM D1922
Hardness					

Manufacturer website: https://www.lyondellbasell.com/en/

Shore Hardness, (Shore D)	46		46		ASTM D2240
Thermal					
Vicat Softening Temperature	194	°F	90	°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

Notes

Data obtained from 1.25 mil (32 micron) film produced on a blown film line with a 8" (203 mm) die, 350°F (177°C) melt temperature, 2:1 BUR, 0.025" die gap at 150 lbs/hr.

These are typical property values not to be construed as specification limits.

Processing Techniques

Specific recommendations for resin type and processing conditions can only be made when the end use, required properties and fabrication equipment are known.

Company Information

For further information regarding the LyondellBasell company, please visit http://www.lyb.com/.

© LyondellBasell Industries Holdings, B.V. 2026

Disclaimer

Information in this document is accurate to the best of our knowledge at the date of publication. The document is designed to provide users general information for safe handling, use, processing, storage, transportation, disposal and release and does not constitute any warranty or quality specification, either express or implied, including any warranty of merchantability or fitness for any particular purpose. Users shall determine whether the product is suitable for their use and can be used safely and legally.

In addition to any prohibitions of use specifically noted in this document, LyondellBasell may further prohibit or restrict the sale of its products into certain applications. For further information, please contact a LyondellBasell representative.

Trademarks

The Trademark referenced within the product name is owned or used by the LyondellBasell family of companies.