

Technical Data Sheet

Petrothene NA831000

Low Density Polyethylene



Product Description

Petrothene NA831000 resin exhibits high stress crack resistance and low temperature brittleness. Typical applications include housewares, containers and industrial parts.

Regulatory Status

For regulatory compliance information, see *Petrothene* NA831000 [Product Stewardship Bulletin \(PSB\)](#) and [Safety Data Sheet \(SDS\)](#).

Status	Commercial: Active
Availability	North America
Application	Bottles and Vials; Bottles For Consumer Goods; Bottles for Industrial Use; Clear Containers; Opaque Containers
Market	Rigid Packaging
Processing Method	Injection Molding

Typical Properties	Nominal Value	English Units	Nominal Value	SI Units	Test Method
Physical					
Melt Flow Rate, (190 °C/2.16 kg)	9.0	g/10 min	9.0	g/10 min	ASTM D1238
Density, (23 °C)	0.919	g/cm ³	0.919	g/cm ³	ASTM D1505
Mechanical					
Flexural Modulus, (1% Secant)	37000	psi	255	MPa	ASTM D790
Tensile Strength at Break	1230	psi	9	MPa	ASTM D638
Tensile Strength at Yield	1300	psi	9	MPa	ASTM D638
Tensile Elongation at Yield	14	%	14	%	ASTM D638
Hardness					
Shore Hardness, (Shore D)	48		48		ASTM D2240
Thermal					
Vicat Softening Temperature	184	°F	85	°C	ASTM D1525
Low Temperature Brittleness, F ₅₀	-85	°F	-65	°C	ASTM D746
Deflection Temperature Under Load, (66 psi, Unannealed)	104	°F	40	°C	ASTM D648

Notes

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/>.

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Users should review the applicable Safety Data Sheet before handling the product.

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- (i) U.S. FDA Class I or II Medical Devices; Health Canada Class I, II or III Medical Devices; European Union Class I or II Medical Devices;
- (ii) film, overwrap and/or product packaging that is considered a part or component of one of the aforementioned medical devices;
- (iii) packaging in direct contact with a pharmaceutical active ingredient and/or dosage form that is intended for inhalation, injection, intravenous, nasal, ophthalmic (eye), digestive, or topical (skin) administration;
- (iv) tobacco related products and applications, electronic cigarettes and similar devices.
- (v) safety components in automotive applications, for example: air bags, air bag unit housings and covers, seat belt mechanisms, brake systems, pedals and pedal supports, steering systems.

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- (ii) applications involving permanent implantation into the body;
- (iii) life-sustaining medical applications.

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