

Technical Data Sheet

Petrothene LP500210

High Density Polyethylene



Product Description

The *Petrothene* LP5002 series of polyethylene resins exhibits excellent environmental stress crack resistance and is selected by customers for use in bottles which contain aggressive agricultural and household chemicals. This product contains synthetic antistat.

Regulatory Status

For regulatory compliance information, see *Petrothene* LP500210 [Product Stewardship Bulletin \(PSB\)](#) and [Safety Data Sheet \(SDS\)](#).

Status	Commercial: Active
Availability	North America
Application	Bottles For Consumer Goods; Bottles for Industrial Use
Market	Rigid Packaging
Processing Method	Extrusion Blow Molding
Attribute	Contains Antistat; High ESCR (Environmental Stress Cracking Resistance)

Typical Properties	Nominal Value	English Units	Nominal Value	SI Units	Test Method
Physical					
Melt Flow Rate, (190 °C/2.16 kg)	0.20	g/10 min	0.20	g/10 min	ASTM D1238
Density, (23 °C)	0.946	g/cm ³	0.946	g/cm ³	ASTM D1505
Mechanical					
Flexural Modulus, (1% Secant)	140000	psi	965	MPa	ASTM D790
Tensile Strength at Yield	3400	psi	23.4	MPa	ASTM D638
Tensile Elongation at Break	>800	%	>800	%	ASTM D638
Environmental Stress Crack Resistance, F ₅₀ (100% Igepal®, Cond B)	>1000	hr	>1000	hr	ASTM D1693
Impact					
Tensile Impact Strength	245	ft-lb/in ²	515	kJ/m ²	ASTM D1822
Hardness					
Shore Hardness, (Shore D)	65		65		ASTM D2240
Thermal					
Vicat Softening Temperature	252	°F	122	°C	ASTM D1525
Low Temperature Brittleness, F ₅₀	<-105	°F	<-76	°C	ASTM D746
Deflection Temperature Under Load, (66 psi, Unannealed)	151	°F	66	°C	ASTM D648
Additive					
Antistat	High		High		LYB Method

Product	Antistat(ppm)
LP500200	None
LP500210	High

Notes

Igepal® is a registered trademark of Rhodia.

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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This product(s) may not be used in the manufacture of any of the following, without prior written approval by Seller for each specific product and application:

- (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.

The product(s) may not be used in:

- (i) U.S. FDA Class III Medical Devices; Health Canada Class IV Medical Devices; European Class III Medical Devices;
- (ii) applications involving permanent implantation into the body;
- (iii) life-sustaining medical applications.

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