Technical Data Sheet

Petrothene LB500302

High Density Polyethylene

Product Description

Petrothene LB500302 is a polyethylene resin that exhibits excellent environmental stress crack resistance and is selected by customers for use in heavy duty bottles, such as those containing detergent and chemicals.

Regulatory Status

For regulatory compliance information, see *Petrothene* LB500302 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	Good 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)	0.30	g/10 min	0.30	g/10 min	ASTM D1238
Density, (23 °C)	0.949	g/cm³	0.949	g/cm³	ASTM D1505
Mechanical					
Flexural Modulus, (1% Secant)	170000	psi	1170	MPa	ASTM D790
Tensile Strength at Yield	3800	psi	26.2	MPa	ASTM D638
Tensile Elongation at Break	>600	%	>600	%	ASTM D638
Environmental Stress Crack Resistance, F_{50} (100% Igepal®, Cond B)	75	hr	75	hr	ASTM D1693
Impact					
Tensile Impact Strength	120	ft-lb/in²	252	kJ/m²	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)	162	°F	72	°C	ASTM D648

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

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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