

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.

<b>Application</b>	Bottles For Consumer Goods; Bottles for Industrial Use
<b>Market</b>	Rigid Packaging
<b>Processing Method</b>	Extrusion Blow Molding
<b>Attribute</b>	Good ESCR (Environmental Stress Cracking Resistance)

Typical Properties	Nominal Value	English Units	Nominal Value	SI Units	Test Method
<b>Physical</b>					
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/cm <sup>3</sup>	0.949	g/cm <sup>3</sup>	ASTM D1505
<b>Mechanical</b>					
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 <sub>50</sub> (100% Igepal®, Cond B)	75	hr	75	hr	ASTM D1693
<b>Impact</b>					
Tensile Impact Strength	120	ft-lb/in <sup>2</sup>	252	kJ/m <sup>2</sup>	ASTM D1822
<b>Hardness</b>					
Shore Hardness, (Shore D)	65		65		ASTM D2240
<b>Thermal</b>					
Vicat Softening Temperature	252	°F	122	°C	ASTM D1525
Low Temperature Brittleness, F <sub>50</sub>	<-105	°F	<-76	°C	ASTM D746
Deflection Temperature Under Load, (66 psi, Unannealed)	162	°F	72	°C	ASTM D648

## 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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