Technical Data Sheet

Petrothene NA345009

Low Density Polyethylene

Product Description

Petrothene NA345009 is a low density homopolymer resin selected by customers for blow molding and injection molding applications. Clarity combined with strength and high stiffness are key attributes of NA345009. Typical customer applications include flexible containers, squeeze bottles and toys.

Regulatory Status

For regulatory compliance information, see *Petrothene* NA345009 Product Stewardship Bulletin (PSB) and Safety Data Sheet (SDS).

Status	Commercial: Active
Availability	North America
Application	Bottles For Consumer Goods; Caps & Closures; Clarity Film; Soft Profile & Sheets
Market	Rigid Packaging
Processing Method	Extrusion Blow Molding; Injection Molding

Typical Properties	Nominal Value	English Units	Nominal Value	SI Units	Test Method
Physical					
Melt Flow Rate, (190 °C/2.16 kg)	1.8	g/10 min	1.8	g/10 min	ASTM D1238
Density, (23 °C)	0.921	g/cm³	0.921	g/cm³	ASTM D1505
Mechanical					
Flexural Modulus					
(1% Secant)	43000	psi	300	MPa	ASTM D790
(2% Secant)	36000	psi	250	MPa	ASTM D790
Tensile Strength at Break	1750	psi	12	MPa	ASTM D638
Tensile Strength at Yield	1800	psi	12	MPa	ASTM D638
Tensile Elongation at Break	>600	%	>600	%	ASTM D638
Tensile Elongation at Yield	14	%	14	%	ASTM D638
Hardness					
Shore Hardness, (Shore D)	56		56		ASTM D2240
Thermal					
Vicat Softening Temperature	205	°F	96	°C	ASTM D1525
Low Temperature Brittleness, F_{50}	<-105	°F	<-76	°C	ASTM D746
Deflection Temperature Under Load, (66 psi, Unannealed)	115	°F	46	°C	ASTM D648

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

Notes

Tensile properties were run with a crosshead speed of 20 inches/min or 500 mm/min.

Conditions of Flexural Modulus values are: 0.5 inches/min or 12.5 mm/min.

Deflection Temperature Under Load and Low Temperature Brittleness data are for control and development work and are not intended for use in design or predicting performance at elevated or sub-ambient temperatures.

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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