Petrothene

NA345009

Low Density Polyethylene
Injection Molding Grade
Melt Index: 1.8 Density: 0.921

Applications

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

Regulatory Status

NA345009 meets the requirements of the Food and Drug Administration, 21 CFR 177.1520. This regulation allows the use of this olefin polymer in "...articles or components of articles intended for use in contact with food..." Specific limitations or conditions of use may apply. Contact your Equistar product safety representative for more information.

Processing Techniques

Specific recommendations for processing NA345009 can only be made when the processing conditions, equipment and end use are known.

Typical Properties

Property	Nominal Value	Units	ASTM Test Method
Melt Index	1.8	g/10 min	D1238
Density	0.921	g/cc	D1505
Tensile Strength @ Break[1]	1,750 (12)	psi (MPa)	D638
Tensile Strength @ Yield[1]	1,800 (12)	psi (MPa)	D638
Elongation @ Yield [1]	14	%	D638
1% Secant Modulus[2]	43,000 (300)	psi (MPa)	D790
2% Secant Modulus[2]	36,000 (250)	psi (MPa)	D790
Heat Deflection Temperature @ 66 psi[3]	115 (46)	°F (°C)	D648
Vicat Softening Point	205 (96)	°F (°C)	D1525
Hardness, Shore D	56		D2240
Low Temperature Brittleness, F_{50} [4]	-105 (<-76)	°F (°C)	D746

[1] Crosshead Speed – 20 in/min
[2] Crosshead Speed - ½ in/min
[3] Data are for control and development work and not intended for use in design or predicting endurance at elevated temperatures.
[4] Test method does not necessarily indicate the lowest temperature at which the material may be used.

These are typical values not to be construed as specification limits.