

Technical Data Sheet

Petrothene GA594189



Linear Low Density Polyethylene

Product Description

Petrothene GA594189 is a pelletized LLDPE copolymer resin for injection molding thin-walled items requiring high flow and short cycle times. GA594189 exhibits excellent flow, warp resistance and surface appearance.

Regulatory Status

For regulatory compliance information, see *Petrothene* GA594189 [Product Stewardship Bulletin \(PSB\)](#) and [Safety Data Sheet \(SDS\)](#).

Status	Commercial: Active
Availability	North America
Application	Lids
Market	Rigid Packaging
Processing Method	Injection Molding

Typical Properties	Nominal Value	English Units	Nominal Value	SI Units	Test Method
Physical					
Melt Flow Rate, (190 °C/2.16 kg)	140	g/10 min	140	g/10 min	ASTM D1238
Density, (23 °C)	0.933	g/cm ³	0.933	g/cm ³	ASTM D1505
Spiral Flow	26.4	in	67.2	cm	LYB Method
Mechanical					
Flexural Modulus					
(1% Secant)	91000	psi	630	MPa	ASTM D790
(2% Secant)	79000	psi	540	MPa	ASTM D790
Tensile Strength at Break, (23 °C)	2000	psi	14	MPa	ASTM D638
Tensile Strength at Yield, (23 °C)	2400	psi	17	MPa	ASTM D638
Tensile Elongation at Yield, (23 °C)	10	%	10	%	ASTM D638
Hardness					
Shore Hardness, (Shore D)	61		61		ASTM D2240
Thermal					
Vicat Softening Temperature	188	°F	86	°C	ASTM D1525
Low Temperature Brittleness, F ₅₀	-68	°F	-56	°C	ASTM D746
Deflection Temperature Under Load, (66 psi, Unannealed)	124	°F	51	°C	ASTM D648

Notes

Tensile properties were run with a crosshead speed of 2 inches/min or 50 mm/min.

Flexural Modulus properties were run with a crosshead speed of 0.5 inches/min or 12.5 mm/min.

Spiral Flow measures the number of inches of flow produced when molten resin is injected into a long, spiral channel (0.0625" insert), at a constant injection pressure of 1000 psi with a melt temperature of 440 °F.

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.