Technical Data Sheet

Petrothene GA578189

Linear Low Density Polyethylene

Product Description

Petrothene GA578189 is a pelletized LLDPE resin for injection molding applications such as lids, caps and closures, containers and other items needing rigidity and good appearance. GA578189 can be used in operations requiring fast cycle times, as well.

Regulatory Status

For regulatory compliance information, see *Petrothene* GA578189 Product Stewardship Bulletin (PSB) and Safety Data Sheet (SDS).

Status	Commercial: Active
Availability	North America
Application	Caps & Closures; Containers; Housewares; Lids; Outdoor and Power Tools
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)	85	g/10 min	85	g/10 min	ASTM D1238
Density, (23 °C)	0.928	g/cm³	0.928	g/cm³	ASTM D1505
Spiral Flow	22.0	in	56.0	cm	LYB Method
Mechanical					
Flexural Modulus					
(1% Secant)	80000	psi	560	MPa	ASTM D790
(2% Secant)	70000	psi	480	MPa	ASTM D790
Tensile Strength at Break, (23 °C)	1800	psi	13	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)	54		54		ASTM D2240
Thermal					
Vicat Softening Temperature	185	°F	85	°C	ASTM D1525
Low Temperature Brittleness, F_{50}	-75	°F	-60	°C	ASTM D746
Deflection Temperature Under Load, (66 psi, Unannealed)	121	°F	50	°C	ASTM D648

Notes

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