EQUISTAR
A Lyondell Company

Petrothene®

GA574189

Linear Low Density Polyethylene
Injection Molding Grade
Melt Index 50 Density 0.926

Applications

PETROTHENE GA574189 exhibits excellent flow and impact with good stiffness. Typical applications include lids, closures, containers, housewares and medical items.

Regulatory Status

GA574189 meets the requirements of the Food and Drug Administration regulation, 21 CFR 1 77.1 520. 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 sales representative for more information.

Processing Techniques

Specific recommendations for processing GA574189 can only be made when the processing conditions, equipment and end use are known. For further suggestions, please contact your Equistar sales representative.

Suggested Start-up Conditions

Extruder Zone	Rear	Center	Front	Nozzle
Cylinder Temperature °F (°C)	350 (177)	375 (190)	400 (204)	400 (204)

Typical Properties

Property	Nominal Value	Units	Test Method
Melt Index	50	g/10 min	ASTM D 1238
Density	0.926	g/cc	ASTM D 1505
Spiral Flow[1]	19.3 (49.0)	in (cm)	Equistar
Tensile Strength @ Break	1,500 (10)	psi (MPa)	ASTM D 638
Tensile Strength @ Yield[2]	2,100 (15)	psi (MPa)	ASTM D 638
Elongation @ Yield[2]	8.2	%	ASTM D 638
1% Secant Modulus[3]	64,000 (440)	psi (MPa)	ASTM D 790
2% Secant Modulus[3]	60,000 (410)	psi (MPa)	ASTM D 790
Vicat Softening Point	205 (96)	°F (°C)	ASTM D 1525
Hardness, Shore D	52		ASTM D 2240
Heat Deflection Temperature, 66 psi [4]	122 (50)	°F (°C)	ASTM D 648
Low Temperature Brittleness, F_{50} [5]	< -105 (<-76)	°F (°C)	ASTM D 746

1 Measures the number on inches of flow produced when molten resin is injected into a long, spiral channel (0.625" insert), at a constant injection pressure of 1000 psi with a melt temperature of 440°F.
2 Crosshead speed – 20 in/ min
3 Crosshead speed - ½ in/ min
4 Data is for control and development work and not intended for use in design or predicting endurance at elevated temperatures.
5 Test method has been found useful for specification purposes, but does not necessarily indicate the lowest temperature at which the material may be used.

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LYONDELL

Lyondell Chemical Company
1221 McKinney, Suite 700
P.O. Box 2583
Houston, Texas 77252-2583
800.615.8999
http://www.Lyondell.com