

Petrothene®

GA574000

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

PETROTHENE GA574000 exhibits excellent flow and impact with good stiffness. Typical applications include lids, closures, containers, housewares and medical items.

Regulatory Status

GA574000 meets the requirements of the Food and Drug Administration regulation, 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 sales representative for more information.

Processing Techniques

Specific recommendations for processing GA574000 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
Typical Properties

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

The information on this document is, to our knowledge, true and accurate. However, since the particular uses and the actual conditions of use of our products are beyond our control, establishing satisfactory performance of our products for the intended application is the customer's sole responsibility. All uses of Equistar products and any written or oral information, suggestions or technical advice from Equistar are without warranty, express or implied, and are not an inducement to use any process or product in conflict with any patent.

Equistar materials are not designed or manufactured for use in implantation in the human body or in contact with internal body fluids or tissues. Equistar makes no representation, promise, express warranty or implied warranty concerning the suitability of these materials for use in implantation in the human body or in contact with internal body tissues or fluids.

More detailed safety and disposal information on our products is contained in the Material Safety Data Sheet (MSDS). All users of our products are urged to retain and use the MSDS. A MSDS is automatically distributed upon purchase/order execution. You may request an advance or replacement copy by calling our MSDS Hotline at 800.700.0946.

® Petrothene is a registered trademark of Equistar Chemicals, LP.



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