

## LyondellBasell Petrothene® LP540200 High Density Polyethylene

Category: Polymer, Film, Thermoplastic, Polyethylene (PE), HDPE, High Density Polyethylene (HDPE), Film Grade

## **Material Notes:**

ApplicationsPETROTHENE LP 5402-00 is a copolymer resin designed for blown film applications. This resin offers high stiffness, excellent appearance and bubble stability and good draw-down. LP 5402-00 is recommended for merchandise bags and multi-wall sack liners and barrier sheeting. It is also useful as a blend component for improved stiffness and machinability. Regulatory StatusLP 5402-00 meets the requirements of the Food and Drug Administration, regulation 21 CFR 177.1520. This regulation allows the use of 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 regarding the suitability of specific products for specific applications. Processing Techniques Specific recommendations for processing LP 5402-00 can only be made when the processing conditions, equipment and end use are known. For further suggestions, please contact your Equistar sales representative. These are typical values and not to be construed as specific product limits. Data obtained from film produced in a 3½ in. (89 mm) blown film line, commercials available 8'â€(203 mm) die, 415°F (213°C) melt extrusion temperature, 2.5:1 BUR, 1.25 milThis product is from the former Equistar product line.

## Order this product through the following link:

http://www.lookpolymers.com/polymer\_LyondellBasell-Petrothene-LP540200-High-Density-Polyethylene.php

Physical Properties	Metric	English	Comments
Density	0.940 g/cc	0.0340 lb/in³	ASTM D1505
Water Vapor Transmission	9.00 g/m²/day	0.580 g/100 in²/day	ASTM F372
Environmental Stress Crack Resistance	>= 1000 hour	>= 1000 hour	Molded; F <sub>50</sub> ; ASTM D1693
Thickness	31.8 microns	1.25 mil	2.5:1 BUR
Melt Flow	0.17 g/10 min	0.17 g/10 min	ASTM D1238

Mechanical Properties	Metric	English	Comments
Hardness, Shore D	62	62	Molded; ASTM D2240
Tensile Strength, Yield	21.9 MPa	3180 psi	Molded; ASTM D638
Film Elongation at Break, MD	450 %	450 %	ASTM D882
Film Elongation at Break, TD	600 %	600 %	ASTM D882
Tensile Impact	98.8 J/cm	185 ft-lb/in	ASTM D1822
Dart Drop Test	40.0 g	0.0882 lb	F <sub>50</sub> ; ASTM D1709
Film Tensile Strength at Break, MD	44.8 MPa	6500 psi	ASTM D882
Film Tensile Strength at Break, TD	29.0 MPa	4200 psi	ASTM D882



Mechanical Properties	Metric	English ei	Comments
1% Secant Modulus, TD	758 MPa	110000 psi	ASTM D882

Thermal Properties	Metric	English	Comments
Deflection Temperature at 0.46 MPa (66 psi)	64.0 °C	147 °F	Molded; ASTM D648
Vicat Softening Point	119 °C	246 °F	ASTM D1525
Brittleness Temperature	<= -76.0 °C	<= -105 °F	Molded; ASTM D746

Processing Properties	Metric	English	Comments
Melt Temperature	213 °C	415 °F	

## **Contact Songhan Plastic Technology Co.,Ltd.**

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