

Petrothene<sup>®</sup>

# LP 5402-00

High Density Polyethylene  
Film Extrusion Grade

Melt Index 0.17 Density 0.940

## Applications

PETROTHENE LP 5402-00 is a copolymer resin designed for blown film applications. This resin offers high ESCR, stiffness, excellent appearance and bubble stability. LP 5402-00 is recommended for high strength multi-wall sack liners and barrier sheeting. It is also useful as a blend component for improved stiffness and machinability.

## Regulatory Status

LP 5402-00 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.

Physical Properties*	Nominal Value	Units	ASTM Test Method
Melt Index	0.17	g/10 min	D 1238
Density	0.940	g/cc	D 1505
Vicat Softening Point	119	°C	D 1525
<b>Film**</b>			
Elmendorf Tear Strength, MD (TD)	40 (1,150)	g	D 1922
Tensile Strength @ Yield, MD (TD)	2,800 (3,300)	psi	D 882
Tensile Strength @ Break, MD (TD)	6,800 (4,300)	psi	D 882
Elongation @ Break, MD (TD)	510 (680)	%	D 882
1% Secant Modulus, MD (TD)	82,000 (110,000)	psi	E 111
Dart Drop Impact Strength, F <sub>50</sub>	70	g	D 1709
Transmission Rates: Water Vapor	5.1	g/m <sup>2</sup> /24 hrs	F 372
Oxygen	2,450	cm <sup>3</sup> /m <sup>2</sup> /24 hrs	D 3965
<b>Molding</b>			
Tensile Strength @ Yield <sup>1</sup>	3,180	psi	D 6381
Low Temperature Brittleness	<-76	°C	D 746
Heat Deflection Temperature @ 66 psi	64	°C	D 648
Hardness, Shore D	62		D 220
Environmental Stress Crack Resistance, F <sub>50</sub>	>1,000	hrs	D 1693

<sup>1</sup> Type IV Specimen

\* These are typical values and not to be construed as specific product limits.

\*\* Data obtained from 2.0 mil Blown Film; 2.5:1 Blow-up-ratio, Melt Temperature 410-430°F (210-220°C), 60 mil die gap

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