

Petrothene

# LP5100

High Density Polyethylene

Blow Molding Grade

High Load Melt Index 11.5 Density 0.950

## Applications

*Petrothene* LP5100 is especially designed for large-part blow molding of durable goods and deep-draw sheet extrusion/ thermoforming applications. LP5100 exhibits excellent impact resistance and environmental stress crack resistance.

## Regulatory Status

LP5100 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 LP5100 can only be made when the processing conditions, equipment and end use are known. For further suggestions, please contact your Equistar sales representative.

## Typical Properties

| Property   | Nominal Value | Units    | ASTM Test Method    |
|--|---------------|----------|---------------------|
| High Load Melt Index (HLMI)                            | 11.5          | g/10 min | D 1238              |
| Density  | 0.950         | g/cc     | D 1505              |
| Tensile Strength @ Yield                               | 3,700         | psi      | D 638               |
| Elongation @ Break                                     | >800          | %        | D 638               |
| Flexural Modulus                                       | 165,000       | psi      | D 790               |
| Tensile Impact   | >200          | ft-lb/in | D 1822              |
| Low Temperature Brittleness, F <sub>50</sub>           | <-76          | °C       | D 746               |
| Heat Deflection Temperature @ 66 psi                   | 73            | °C       | D 648               |
| Vicat Softening Point                                  | 122           | °C       | D 1525              |
| Hardness, Shore D                                      | 65            |          | D 2240              |
| Environmental Stress Crack Resistance, F <sub>50</sub> | >1,000        | hrs      | D 1693 <sup>1</sup> |
|  | >1,000        |          | D 2561              |

<sup>1</sup> 100% Igepal® CO-630, 50°C

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