

Technical Data Sheet

Petrothene LP510034

High Density Polyethylene

Product Description

Petrothene LP510034 is selected by customers for use in large-part blow molding of durable goods and for deep-draw sheet extrusion / thermoforming applications. LP510034 exhibits excellent impact resistance and excellent environmental stress crack resistance.

| | |
|--------------------------|--|
| Application | Industrial Packaging; Jerry Cans; Structural Parts |
| Market | Rigid Packaging |
| Processing Method | Extrusion Blow Molding; Sheet and Profile Extrusion |
| Attribute | High ESCR (Environmental Stress Cracking Resistance) |

| Typical Properties | Nominal Value | English Units | Nominal Value | SI Units | Test Method |
|--|---------------|-----------------------|---------------|-------------------|-------------|
| Physical | | | | | |
| Melt Flow Rate, (190 °C/21.6 kg) | 11.5 | g/10 min | 11.5 | g/10 min | ASTM D1238 |
| Density, (23 °C) | 0.950 | g/cm ³ | 0.950 | g/cm ³ | ASTM D1505 |
| Mechanical | | | | | |
| Flexural Modulus, (1% Secant) | 165000 | psi | 1140 | MPa | ASTM D790 |
| Tensile Strength at Yield | 3700 | psi | 25.5 | MPa | ASTM D638 |
| Tensile Elongation at Break | >800 | % | >800 | % | ASTM D638 |
| Environmental Stress Crack Resistance, F ₅₀ (100% Igepal®, Cond B) | >1000 | hr | >1000 | hr | ASTM D1693 |
| Impact | | | | | |
| Tensile Impact Strength | >200 | ft-lb/in ² | >420 | kJ/m ² | ASTM D1822 |
| Hardness | | | | | |
| Shore Hardness, (Shore D) | 65 | | 65 | | ASTM D2240 |
| Thermal | | | | | |
| Vicat Softening Temperature | 252 | °F | 122 | °C | ASTM D1525 |
| Low Temperature Brittleness, F ₅₀ | <-105 | °F | <-76 | °C | ASTM D746 |
| Deflection Temperature Under Load, (66 psi, Unannealed) | 163 | °F | 73 | °C | ASTM D648 |

Notes

Igepal® is a registered trademark of Rhodia.

These are typical property values not to be construed as specification limits.

Processing Techniques

Specific recommendations for resin type and processing conditions can only be made when the end use, required properties and fabrication equipment are known.

Company Information

For further information regarding the LyondellBasell company, please visit <http://www.lyb.com/>.

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