

Technical Data Sheet

Petrothene LT523502



High Density Polyethylene

Product Description

Petrothene LT523502 exhibits an enhanced balance of stiffness and environmental stress crack resistance. Typical applications include bottles for bleach, detergents, household chemicals, foodstuffs and pharmaceuticals.

| | |
|--------------------------|--|
| Application | Bottles For Consumer Goods; Bottles for Industrial Use |
| Market | Rigid Packaging |
| Processing Method | Extrusion Blow Molding |
| Attribute | Good ESCR (Environmental Stress Cracking Resistance) |

| Typical Properties | Nominal Value | English Units | Nominal Value | SI Units | Test Method |
|---|---------------|-------------------|---------------|-------------------|-------------|
| Physical | | | | | |
| Melt Flow Rate, (190 °C/2.16 kg) | 0.35 | g/10 min | 0.35 | g/10 min | ASTM D1238 |
| Density, (23 °C) | 0.952 | g/cm ³ | 0.952 | g/cm ³ | ASTM D1505 |
| Mechanical | | | | | |
| Flexural Modulus, (1% Secant) | 174200 | psi | 1200 | MPa | ASTM D790 |
| Tensile Strength at Break | 2830 | psi | 19.5 | MPa | ASTM D638 |
| Tensile Strength at Yield | 3900 | psi | 26.9 | MPa | ASTM D638 |
| Tensile Elongation at Break | 1100 | % | 1100 | % | ASTM D638 |
| Environmental Stress Crack Resistance, F ₅₀ | 140 | hr | 140 | hr | ASTM D1693 |
| Hardness | | | | | |
| Shore Hardness, (Shore D) | 68 | | 68 | | ASTM D2240 |
| Thermal | | | | | |
| Vicat Softening Point | 255 | °F | 124 | °C | ASTM D1525 |
| Low Temperature Brittleness, F ₅₀ | <-105 | °F | <-76 | °C | ASTM D746 |
| Deflection Temperature Under Load, (66 psi, Unannealed) | 153 | °F | 67 | °C | ASTM D648 |

Notes

ESCR performed using 100% Igepal® CO-630, 50°C, where; 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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