

## Technical Data Sheet

### *lcorene* POLYETHYLENE LP 554-01 NATURAL



High Density Polyethylene

#### Product Description

LP 554-01 Natural is a narrow molecular weight homopolymer high-density polyethylene exhibiting toughness, rigidity and warpage resistance. This resin meets FDA Regulation 21 CFR 177.1520 (c) 2.1 and 2.2. Applications include crates, tote bins, cases and trays.

|                          |                                                                                                                           |
|--------------------------|---------------------------------------------------------------------------------------------------------------------------|
| <b>Processing Method</b> | Compounding; Injection Molding                                                                                            |
| <b>Attribute</b>         | Food Contact Acceptable; Good Toughness; High Rigidity; Homopolymer; Narrow Molecular Weight Distribution; Warp Resistant |
| <b>Forms</b>             | Pellets                                                                                                                   |
| <b>Appearance</b>        | Natural Color                                                                                                             |
| <b>Application</b>       | Containers; Crates; Support Trays                                                                                         |

| Typical Properties                                        | Nominal Value | Units             | Test Method |
|-----------------------------------------------------------|---------------|-------------------|-------------|
| <b>Physical</b>                                           |               |                   |             |
| Melt Flow Rate, (190 °C/2.16 kg)                          | 8.0           | g/10 min          | ASTM D1238  |
| Density - Specific Gravity                                | 0.963         | g/cm <sup>3</sup> | ASTM D792   |
| <b>Mechanical</b>                                         |               |                   |             |
| Tensile Strength at Yield, (51 mm/min)                    | 29.6          | MPa               | ASTM D638   |
| Environmental Stress Crack Resistance, (Condition B, F50) | 5.00          | hr                | ASTM D1693  |
| Flexural Modulus, (1% Secant)                             | 586           | MPa               | ASTM D790   |
| Tensile Elongation at Break, (51 mm/min)                  | >800          | %                 | ASTM D638   |
| <b>Impact</b>                                             |               |                   |             |
| Notched Izod Impact                                       | 53            | J/m               | ASTM D256   |
| <b>Hardness</b>                                           |               |                   |             |
| Durometer Hardness, (Shore D)                             | 65            |                   | ASTM D2240  |
| <b>Thermal</b>                                            |               |                   |             |
| Vicat Softening Temperature                               | 128           | °C                | ASTM D1525  |

## Notes

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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