## LLDPE

# LLDPE 8320

### LINEAR LOW DENSITY POLYETHYLENE (LLDPE)

This is a narrow molecular-weight-distribution, butene-comonomer linear low-density polyethylene grade intended for injection-moulded applications. It has been designed to combine excellent low-temperature impact strength, rigidity, environmental stress crack resistance and processability.

| Typical Application | Product Characteristics |
|---|---|
| • Injection-moulded food containers<br>• Housewares and lids<br>• Shopping baskets<br>• Masterbatch carrier resin | • Narrow molecular weight distribution for consistent processing<br>• Excellent low-temperature impact strength<br>• Good rigidity<br>• Good environmental stress crack resistance |

## Physical Properties

| Properties | Test Method | Typical Value | Unit |
|---|---|---|---|
| Melt Index (190°C/2.16 kg) | ASTM D1238 | 20 | g/10 min |
| Density | ASTM D792 | 0.924 | g/cm³ |
| Environmental Stress-Cracking Resistance (50°C, 100% Igepal, F50) | ASTM D1693 | 20 | h |
| Flexural Modulus - 2% Secant | ASTM D1822 | 386 | MPa |
| Tensile Stress at Yield | ASTM D638 | 12 | MPa |
| Tensile Elongation at Yield | ASTM D638 | 3 | % |
| Tensile Stress at Break | ASTM D638 | 8 | MPa |
| Tensile Elongation at Break | ASTM D638 | 60 | % |
| Tensile Impact Strength | ASTM D1822 | 168 | kJ/m² |
| Melting Temperature (DSC) | ASTM D3418 | 123 | °C |
| Deflection Temperature Under Load (0.45 MPa, unannealed) | ASTM D648 | 43 | °C |
| Vicat Softening Temperature | ASTM D1525 | 93.9 | °C |

*1. The nominal properties reported herein are typical of the product and do not reflect normal testing variance; they should not be used for specification purposes.*
*2. Tests performed on compression-moulded plaques in accordance with ASTM D4976.*