

# SABIC® LLDPE 324CNJ

LINEAR LOW DENSITY POLYETHYLENE

#### DESCRIPTION

324CNJ is a Linear Low Density Polyethylene TNPP free grade designed for wire and cable applications. It contains low level of antioxidants and does not contain any slip and antiblock additives. Sufficient antioxidant and Cu-inhibitor should be added to meet specific ageing requirements. For jacketing applications, addition of Carbon Black or UV stabilizer is required.

#### **TYPICAL APPLICATIONS**

One-step or two-step Silane cross-linkable insulation for Low Voltage power insulation cable, Aerial bundle cable and suitable for telecommunication and Low Voltage power cable jacketing.

## TYPICAL PROPERTY VALUES

| PROPERTIES                        | TYPICAL VALUES | UNITS             | TEST METHODS |
|-----------------------------------|----------------|-------------------|--------------|
| POLYMER PROPERTIES                |                |                   |              |
| Melt Flow Rate (MFR)              |                |                   |              |
| at 190 °C and 2.16 kg             | 3.6            | g/10 min          | ASTM D1238   |
| Density                           | 924            | kg/m <sup>3</sup> | ASTM D1505   |
| MECHANICAL PROPERTIES             |                |                   |              |
| Hardness Shore D                  | 53             | -                 | ISO 868      |
| FILM PROPERTIES                   |                |                   |              |
| Tensile Properties <sup>(1)</sup> |                |                   |              |
| stress at yield                   | 11             | MPa               | ASTM D638    |
| stress at break                   | 18             | MPa               | ASTM D638    |
| strain at yield                   | 14             | %                 | ASTM D638    |
| strain at break                   | 600            | %                 | ASTM D638    |
| 1% secant modulus                 | 225            | MPa               | ASTM D638    |
| THERMAL PROPERTIES                |                |                   |              |
| Peak Melting Temperature          | 121            | °C                | SABIC method |
| ELECTRICAL PROPERTIES             |                |                   |              |
| Volume resistivity                | 8.5E15         | Ω.cm              | ASTM D257    |
| Dielectric constant at 60 Hz      | 2.2            | -                 | ASTM D150    |
| Dissipation factor at 60 Hz       | 5.0E-4         | -                 | ASTM D150    |
| Dielectric strength at 2000 V/sec | >30            | V/µm              | ASTM D149    |
| Dielectric strength at 500 V/sec  | 55             | V/µm              | ASTM D149    |

(1) Based on Injection molded specimens.

### STORAGE AND HANDLING

Polyethylene resin should be stored in a manner to prevent a direct exposure to sunlight and/or heat. The storage area should also be dry and preferably do not exceed 50°C. SABIC would not give warranty to bad storage conditions which may lead to quality deterioration such as color change, bad smell and inadequate product performance. It is advisable to process PE resin within 6 months after delivery.