**DOW**

# DOW™ LDPE PG 7004 (Injection Molding)
## Low Density Polyethylene Resin

**Overview**

DOW LDPE™ PG 7004 Polyethylene Resin from Dow has been designed to exhibit good processability, balanced physical properties, good rigidity and surface gloss, and excellent organoleptics when it is properly injection moulded.

Complies with:
- U.S. FDA 21 CFR 177.1520(c)2.2
- U.S. FDA-DMF
- EU, No 10/2011
- Canadian HPFB No Objection

Consult the regulations for complete details.

Applications:
- Housewares.
- Toys.
- Containers.
- Lids.
- Caps.

| Physical | Nominal Value | (English) | Nominal Value | (SI) | Test Method |
|---|---|---|---|---|---|
| Density | 0.922 | g/cm³ | 0.922 | g/cm³ | ASTM D792 |
| Melt Index (190°C/2.16 kg) | 4.1 | g/10 min | 4.1 | g/10 min | ISO 1133 |
| Spiral Flow [1, 2] | 37.0 | in | 94.0 | cm | Dow Method |
| Molding Shrinkage - Flow [3] (428°F (220°C)) | 0.030 | in/in | 3.0 | % | ASTM D955 |
| Environmental Stress-Cracking Resistance (ESCR) [4] | | | | | ASTM D1693 |
| 122°F (50°C), 0.5% Antarox, Compression Molded | 4.00 | hr | 4.00 | hr | |
| **Mechanical** | **Nominal Value** | **(English)** | **Nominal Value** | **(SI)** | **Test Method** |
| Tensile Strength | | | | | ASTM D638 |
| Yield, Compression Molded | 1740 | psi | 12.0 | MPa | |
| Ultimate, Compression Molded | 1160 | psi | 8.00 | MPa | |
| Tensile Elongation | | | | | ASTM D638 |
| Break, Compression Molded | 220 | % | 220 | % | |
| Flexural Modulus - 2% Secant (Compression Molded) | 33400 | psi | 230 | MPa | ASTM D790 |
| **Impact** | **Nominal Value** | **(English)** | **Nominal Value** | **(SI)** | **Test Method** |
| Tensile Impact Strength (Compression Molded) | 47.6 | ft·lb/in² | 100 | kJ/m² | ASTM D1822 |
| **Hardness** | **Nominal Value** | **(English)** | **Nominal Value** | **(SI)** | **Test Method** |
| Durometer Hardness | | | | | ASTM D2240 |
| Shore D, Compression Molded | 51 | | 51 | | |
| **Thermal** | **Nominal Value** | **(English)** | **Nominal Value** | **(SI)** | **Test Method** |
| Vicat Softening Temperature | 208 | °F | 98.0 | °C | ASTM D1525 |

**Notes**

These are typical properties only and are not to be construed as specifications. Users should confirm results by their own tests.

[1] Melt Temperature: 428°F (220°C)

[2] 2 seconds injection

[3] 0.5 seconds injection

[4] Notched