

# UNIVAL™ DMDC-6143 NT 7

High Density Polyethylene Resin

The Dow Chemical Company

## Message:

Outstanding environmental stress crack resistance

Excellent parison melt strength / low sag

Good extrudability / processability

Good rigidity

Complies with U.S. FDA 21 CFR 177.1520 (c) 3.2a

Complies with Canadian HPFB No Objection (With Limitations)

Complies with EU, No 10/2011

Consult the regulations for complete details.

UNIVAL™ DMDC-6143 NT 7 High Density Polyethylene (HDPE) Resin is a polymer with broad molecular weight distribution and high molecular weight polymer. This product provides good stability, which contributes to uniform wall thickness in large parts, making it ideal for blow molding of containers, such as the 5-30 gallon (19-114 liter) tight-head pails, and other large parts. The broad molecular weight distribution of this resin contributes to the outstanding environmental stress crack resistance (ESCR), good rigidity level and extrudability it offers.

| General Information   |                              |                   |             |
|---|------------------------------|-------------------|-------------|
| Agency Ratings  | FDA 21 CFR 177.1520(c) 3.2a  |                   |             |
|   | HPFB (Canada) No Objection 2 |                   |             |
|   | Europe No 10/2011            |                   |             |
| Forms   | Particle                     |                   |             |
| Processing Method   | Blow molding                 |                   |             |
| Physical  | Nominal Value                | Unit              | Test Method |
| Specific Gravity  | 0.952                        | g/cm <sup>3</sup> | ASTM D792   |
| Melt Mass-Flow Rate (MFR) (190°C/21.6 kg)                         | 14                           | g/10 min          | ASTM D1238  |
| Environmental Stress-Cracking Resistance (50°C, 100% Igepal, F50) | 1100                         | hr                | ASTM D1693  |
| Hardness  | Nominal Value                | Unit              | Test Method |
| Durometer Hardness (Shore D)                                      | 65                           |                   | ASTM D2240  |
| Mechanical  | Nominal Value                | Unit              | Test Method |
| Tensile Strength  |                              |                   | ASTM D638   |
| Yield   | 23.4                         | MPa               | ASTM D638   |
| Fracture  | 37.9                         | MPa               | ASTM D638   |
| Tensile Elongation  |                              |                   | ASTM D638   |
| Yield   | 10                           | %                 | ASTM D638   |
| Fracture  | 900                          | %                 | ASTM D638   |
| Flexural Modulus - 2% Secant                                      | 1020                         | MPa               | ASTM D790B  |
| Impact  | Nominal Value                | Unit              | Test Method |
| Tensile Impact Strength <sup>1</sup>                              | 357                          | kJ/m <sup>2</sup> | ASTM D1822  |
| Thermal   | Nominal Value                | Unit              | Test Method |

|  |         |    |                 |
|--|---------|----|-----------------|
| Deflection Temperature Under Load (0.45 MPa, Unannealed) | 67.0    | °C | ASTM D648       |
| Brittleness Temperature                                  | < -76.1 | °C | ASTM D746       |
| Vicat Softening Temperature                              | 129     | °C | ASTM D1525      |
| Melting Temperature (DSC)                                | 131     | °C | Internal method |
| Peak Crystallization Temperature (DSC)                   | 125     | °C | Internal method |

#### Additional Information

根据 ASTM D 4976 进行基板模制和测试.

#### NOTE

1. Type s

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