



## UNIVAL™ DMDD-6200 NT 7

The Dow Chemical Company - High Density Polyethylene Resin

Tuesday, November 5, 2019

### General Information

#### Product Description

- Excellent stress crack resistance and rigidity
- High impact strength
- Moderate swell
- High melt strength
- Complies with:
  - U.S. FDA 21 CFR 177.1520 (c) 3.2a
  - EU, No 10/2011
  - CANADIAN HPFB NO OBJECTION (WITH LIMITATIONS)
  - Consult the regulations for complete details.

UNIVAL™ DMDD-6200 NT 7 High Density Polyethylene (HDPE) Resin is a multi-purpose polymer designed for high speed production of blow molded containers used to package food products, household industrial chemicals (e.g., detergents, bleach, fabric softeners), toiletries and cosmetics (e.g., shampoos, creams, lotions, etc.), health and medicinal aids. In addition, this product can be blow molded into other thin walled parts and houseware items, and also can be extruded into profiles.

#### General

|                   |                      |                               |                                           |
|-------------------|----------------------|-------------------------------|-------------------------------------------|
| Material Status   | • Commercial: Active |                               |                                           |
| Availability      | • Asia Pacific       | • Latin America               | • North America                           |
| Additive          | • Antiblock: No      | • Processing Aid: No          | • Slip: No                                |
| Agency Ratings    | • EU No 10/2011      | • FDA 21 CFR 177.1520(c) 3.2a | • HPFB (Canada) No Objection <sup>1</sup> |
| Forms             | • Pellets            |                               |                                           |
| Processing Method | • Blow Molding       |                               |                                           |

### ASTM & ISO Properties <sup>2</sup>

| Physical                                               | Nominal Value | Unit                  | Test Method |
|--------------------------------------------------------|---------------|-----------------------|-------------|
| Density / Specific Gravity                             | 0.955         |                       | ASTM D792   |
| Melt Mass-Flow Rate                                    |               |                       | ASTM D1238  |
| 190°C/2.16 kg                                          | 0.25          | g/10 min              |             |
| 190°C/21.6 kg                                          | 23            | g/10 min              |             |
| Environmental Stress-Cracking Resistance (ESCR)        |               |                       | ASTM D1693  |
| 122°F, 100% Igepal, F50                                | 50.0          | hr                    |             |
| Mechanical                                             | Nominal Value | Unit                  | Test Method |
| Tensile Strength (Yield)                               | 3800          | psi                   | ASTM D638   |
| Tensile Strength (Break)                               | 3700          | psi                   | ASTM D638   |
| Tensile Elongation (Yield)                             | 6.0           | %                     | ASTM D638   |
| Tensile Elongation (Break)                             | 900           | %                     | ASTM D638   |
| Flexural Modulus - 2% Secant                           | 148000        | psi                   | ASTM D790B  |
| Impact                                                 | Nominal Value | Unit                  | Test Method |
| Tensile Impact Strength <sup>3</sup>                   | 100           | ft·lb/in <sup>2</sup> | ASTM D1822  |
| Hardness                                               | Nominal Value | Unit                  | Test Method |
| Durometer Hardness (Shore D)                           | 59            |                       | ASTM D2240  |
| Thermal                                                | Nominal Value | Unit                  | Test Method |
| Deflection Temperature Under Load (66 psi, Unannealed) | 158           | °F                    | ASTM D648   |
| Brittleness Temperature                                | < -105        | °F                    | ASTM D746   |

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| Thermal                                | Nominal Value | Unit | Test Method     |
|----------------------------------------|---------------|------|-----------------|
| Vicat Softening Temperature            | 264           | °F   | ASTM D1525      |
| Melting Temperature (DSC)              | 270           | °F   | Internal Method |
| Peak Crystallization Temperature (DSC) | 246           | °F   | Internal Method |

### Additional Information

Plaque molded and tested in accordance with ASTM D3976.

### Notes

<sup>1</sup> With limitations

<sup>2</sup> Typical properties: these are not to be construed as specifications.

<sup>3</sup> Type S