



DOW™ HDPE DPDA-3320 NT 7 High Density Polyethylene Resin

Overview

Rotational molding or injection molding
 For Large Agricultural Tanks, Intermediate Bulk Containers, Potable Water, Chemical Tanks and Industrial Products
 Excellent impact strength, stress crack resistance and processability
 Complies with U.S. FDA 21 CFR 177.1520 (c)3.1a
 Consult the regulations for complete details.

Dow DPDA-3320 NT 7 High Density Polyethylene Resin is produced via UNIPOL™ Process Technology from Dow and is intended for rotational and injection molding is specifically designed for applications requiring excellent processability and aesthetics combined with low warpage and good mechanical properties. Processing and Stabilization: Dow DPDA-3320 NT 7 High Density Polyethylene Resin is fully heat and UV stabilized resulting in a wide processing latitude, good color retention and long life expectancy.

Additive

- Antiblock: No
- Slip: No
- Processing Aid: No

| Physical | Nominal Value (English) | Nominal Value (SI) | Test Method |
|--|-------------------------|-------------------------|--------------------------|
| Density | 0.942 g/cm ³ | 0.942 g/cm ³ | ASTM D792 |
| Base Density | 0.942 g/cm ³ | 0.942 g/cm ³ | Dow Method ¹ |
| Melt Index (190°C/2.16 kg) | 2.0 g/10 min | 2.0 g/10 min | ASTM D1238 |
| Environmental Stress-Cracking Resistance | | | |
| 122°F (50°C), 100% Igepal, F50 | > 743 hr | > 743 hr | ASTM D1693A ² |
| 122°F (50°C), 100% Igepal, F50 | > 1000 hr | > 1000 hr | ASTM D1693B ² |
| Mechanical | Nominal Value (English) | Nominal Value (SI) | Test Method |
| Tensile Strength (Yield) | 3100 psi | 21.4 MPa | ASTM D638 ² |
| Tensile Elongation | | | ASTM D638 ² |
| Yield | 12 % | 12 % | |
| Break | 710 % | 710 % | |
| Flexural Modulus | | | ASTM D790B ² |
| -- | 143000 psi | 986 MPa | |
| 1% Secant | 107000 psi | 738 MPa | |
| Impact | Nominal Value (English) | Nominal Value (SI) | Test Method |
| Impact Strength | | | ARM |
| -40°F (-40°C), 0.250 in (6.35 mm), Rotational Molded | > 200 ft-lb | > 271 J | |
| Thermal | Nominal Value (English) | Nominal Value (SI) | Test Method |
| Deflection Temperature Under Load | | | ASTM D648 ² |
| 66 psi (0.45 MPa), Unannealed | 132 °F | 55.6 °C | |
| 264 psi (1.8 MPa), Unannealed | 107 °F | 41.7 °C | |
| Melting Temperature (DSC) | 261 °F | 127 °C | Dow Method |

Notes

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

¹ Base density is estimated using the assumption that every 1000 ppm of antiblock in the finished product raises the density of the polymer by 0.0006 g/cm³. Base density is the estimated density of the polymer if it did not contain any antiblock.

² Plaque molded and tested in accordance with ASTM D4976.

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|----------------------|------------------|---------------------------|----------------|
| North America | | Europe/Middle East | +800-3694-6367 |
| U.S. & Canada: | 1-800-441-4369 | | +31-11567-2626 |
| | 1-989-832-1426 | Italy: | +800-783-825 |
| Mexico: | +1-800-441-4369 | | |
| Latin America | | South Africa | +800-99-5078 |
| Argentina: | +54-11-4319-0100 | | |
| Brazil: | +55-11-5188-9000 | | |
| Colombia: | +57-1-219-6000 | Asia Pacific | +800-7776-7776 |
| Mexico: | +52-55-5201-4700 | | +603-7965-5392 |

www.dowplastics.com

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Published: 2011-07-20

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