Technical Information

# CONTINUUM™ DMDA-1260 NT 7
## High Density Polyethylene Resin

## Overview

CONTINUUM™ DMDA-1260 NT 7 High Density Polyethylene Resin (HDPE) is intended for use in compression and injection molded beverage closures designed primarily for applications that undergo hot fill or aseptic sterilization processes. CONTINUUM™ DMDA-1260 offers improved performance for injection molded fitments designed for fitted pouches where its balance of properties are desired. CONTINUUM™ DMDA-1260 delivers a combination of improved properties such as improved stiffness, higher heat deflection temperature, improved ESCR, and easy processing versus alternative HDPE systems typically used for hot fill and aseptic sterilization processes. The end results are longer term closure performance, easy opening closures without the use of slip agent and consistent processing.

Main Characteristics:

- Excellent Stiffness, ESCR, and Impact Strength
- Excellent Sensory Properties
- Excellent Processing Characteristics
- High Heat Deflection Temperature
- Controlled Sensory Properties

Complies with:

- U.S. FDA 21 CFR 177.1520(c)3.2a
- Europe Commission Regulation (EU) No 10/2011

Consult the regulations for complete details.

## Additive

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

| Physical | Nominal Value | (English) | Nominal Value | (SI) | Test Method |
|---|---|---|---|---|---|
| Density | 0.963 | g/cm³ | 0.963 | g/cm³ | ASTM D792 |
| Base Density [1] | 0.963 | g/cm³ | 0.963 | g/cm³ | Dow Method |
| Melt Index (190°C/2.16 kg) | 2.7 | g/10 min | 2.7 | g/10 min | ASTM D1238 |
| Environmental Stress-Cracking Resistance | | | | | ASTM D1693 |
| 122°F (50°C), 10% Igepal, F50 | 22.0 | hr | 22.0 | hr | |
| 122°F (50°C), 100% Igepal, F50 | 28.0 | hr | 28.0 | hr | |
| **Mechanical** | **Nominal Value** | **(English)** | **Nominal Value** | **(SI)** | **Test Method** |
| Tensile Strength | | | | | ASTM D638 |
| Yield | 4300 | psi | 29.6 | MPa | |
| Break | 3000 | psi | 20.7 | MPa | |
| Tensile Elongation | | | | | ASTM D638 |
| Yield | 7.0 | % | 7.0 | % | |
| Break | 700 | % | 700 | % | |
| Flexural Modulus - 2% Secant | 204000 | psi | 1410 | MPa | ASTM D790B |
| **Hardness** | **Nominal Value** | **(English)** | **Nominal Value** | **(SI)** | **Test Method** |
| Durometer Hardness (Shore D) | 60 | | 60 | | ASTM D2240 |
| **Thermal** | **Nominal Value** | **(English)** | **Nominal Value** | **(SI)** | **Test Method** |
| Deflection Temperature Under Load | | | | | ASTM D648 |
| 66 psi (0.45 MPa), Unannealed | 175 | °F | 79.4 | °C | |
| Vicat Softening Temperature | 268 | °F | 131 | °C | ASTM D1525 |
| Melting Temperature (DSC) | 275 | °F | 135 | °C | Dow Method |
| Peak Crystallization Temperature (DSC) | 244 | °F | 118 | °C | Dow Method |

**Additional Information**

Plaque molded and tested in accordance with ASTM D 4976.

### 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.

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