Technical Data Sheet

DOW™ MDPE DPDA-3020 HEALTH+ NT 7 Medium Density Polyethylene Resin

Overview

DOW™ DPDA-3020 HEALTH+ NT 7 Medium Density Polyethylene (MDPE) Resin is produced via UNIPOL™ Process Technology from Dow and is intended for use in a broad range of injection molding applications such as household or commercial trash bins, storage units (totes, bins and laundry baskets) and large carts. This resin has been designed to provide an excellent balance of toughness, tear resistance and processability.

- Injection molding
- For injection molded household or commercial trash bins, storage units (totes, bins and baskets) and large carts
- Excellent balance of toughness, tear resistance and processability

Complies with:

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

Consult the regulations for complete details.

Additive

- Antiblock: No
- Slip: No
- Processing aid: No

Properties

Physical	Nominal Value	Unit (English)	Nominal Value	Unit (SI)	Test Method[1]
Density	0.930	g/cm^3	0.930	g/cm^3	ASTM D792
Base Density[2]	0.930	g/cm^3	0.930	g/cm^3	Dow Method
Melt Index (190°C/2.16 kg)	18	g/10 min	18	g/10 min	ASTM D1238
Environmental Stress-Cracking Resistance (ESCR)[3]					ASTM D1693A
122°F (50°C), 100% Igepal, F50	38.0	hr	38.0	hr	

1. ASTM: American Society for Testing and Materials.
2. 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/cm^3. Base density is the estimated density of the polymer if it did not contain any antiblock.
3. Plaque molded and tested in accordance with ASTM D4976.

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

Properties (Cont.)

Mechanical	Nominal Value	Unit (English)	Nominal Value	Unit (SI)	Test Method
Tensile Strength					ASTM D638
Yield	2220	psi	15.3	MPa	
Break	1860	psi	12.8	MPa	
Tensile Elongation					ASTM D638
Yield	14	%	14	%	
Break	660	%	660	%	
Flexural Modulus - 2% Secant	57700	psi	398	MPa	ASTM D790B
Hardness					
Durometer Hardness (Shore D)	56		56		ASTM D2240
Thermal					
Deflection Temperature Under Load					ASTM D648
66 psi (0.45 MPa), Unannealed	118	°F	47.7	°C	
Vicat Softening Temperature	223	°F	106	°C	ASTM D1525
Melting Temperature (DSC)	257	°F	125	°C	Dow Method
Peak Crystallization Temperature (DSC)	232	°F	111	°C	Dow Method
Additional Information					
Molded and tested in accordance with ASTM D4976.					