



DOW™ MDPE DPDA-3170 NT 7

The Dow Chemical Company - Medium Density Polyethylene Resin

Tuesday, November 5, 2019

General Information

Product Description

DOW™ DPDA-3170 NT 7 Medium Density Polyethylene (MDPE) Resin is produced via UNIPOL™ Process Technology from Dow and is intended for rotational and injection molding and is specifically designed for applications requiring excellent processability and aesthetics combined with low warpage and good mechanical properties.

Processing and Stabilization: DOW DPDA-3170 NT 7 MDPE Resin is fully heat and UV stabilized resulting in a wide processing latitude, good color retention and long life expectancy.

- Rotational molding or injection molding
- For intermediate bulk containers, toys, general purpose custom molding, agricultural storage tanks, water tanks, marine parts, indoor consumer articles
- Excellent impact strength, stress crack resistance and processability
- Long term UV stabilization: UV-8 stabilizer package

Complies with:

- U.S. FDA 21 CFR 177.1520 (c)3.1a
- Canadian HPFB No Objection
- Underwriters Laboratories Inc.
- NSF International NSF/ANSI Std 61 (sec 4 & 5)
- European Commission Regulation (EU) No 10/2011

Consult the regulations for complete details.

General

Material Status	• Commercial: Active		
Availability	• Asia Pacific	• Latin America	• North America
Additive	• Antiblock: No	• Processing Aid: No	• Slip: No
Agency Ratings	• EU 10/2011 • FDA 21 CFR 177.1520(c) 3.1a	• HPFB (Canada) No Objection • NSF STD-61	• UL Unspecified Rating
Forms	• Pellets		
Processing Method	• Injection Molding	• Rotational Molding	

ASTM & ISO Properties ¹

Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity	0.937		ASTM D792
Melt Mass-Flow Rate (190°C/2.16 kg)	7.0	g/10 min	ASTM D1238
Environmental Stress-Cracking Resistance (ESCR) ²			
122°F, 10% Igepal, F50	> 417	hr	ASTM D1693
122°F, 100% Igepal, F50	> 1000	hr	ASTM D1693A
Mechanical	Nominal Value	Unit	Test Method
Tensile Strength ² (Yield)	2670	psi	ASTM D638
Flexural Modulus - 1% Secant ²	87500	psi	ASTM D790B
Impact	Nominal Value	Unit	Test Method
Impact Strength			ARM
-40°F, 0.125 in, Rotational Molded	53	ft-lb	
-40°F, 0.250 in, Rotational Molded	168	ft-lb	

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Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load ² (66 psi, Unannealed)	123	°F	ASTM D648
Deflection Temperature Under Load ² 264 psi, Unannealed	96.0	°F	ASTM D648
Melting Temperature (DSC)	258	°F	Internal Method

Notes

¹ Typical properties: these are not to be construed as specifications.

² Plaque molded and tested in accordance with ASTM D4976.