



Experimental XDPDB-3235 NT 7 Medium Density Polyethylene Resin

Overview

DOW™ XDPDB-3235 NT 7 Medium Density Polyethylene (MDPE) Resin is produced via UNIPOL™ Process Technology from Dow and is intended for rotational and injection molding. It is specifically designed for applications requiring excellent processability and aesthetics combined with low warpage and good mechanical properties.

Processing and Stabilization: DOW XDPDB-3235 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-20+ stabilizer package

Complies with:

- U.S. FDA 21 CFR 177.1520 (c)3.1a

Consult the regulations for complete details.

Additive

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

Physical	Nominal Value (English)	Nominal Value (SI)	Test Method
Density	0.938 g/cm ³	0.938 g/cm ³	ASTM D792
Base Density ¹	0.938 g/cm ³	0.938 g/cm ³	Dow Method
Melt Index (190°C/2.16 kg)	3.5 g/10 min	3.5 g/10 min	ASTM D1238
Environmental Stress-Cracking Resistance (ESCR) ²			ASTM D1693
100% Igepal, F50	> 1000 hr	> 1000 hr	
Mechanical	Nominal Value (English)	Nominal Value (SI)	Test Method
Tensile Strength ² (Yield)	2800 psi	19.3 MPa	ASTM D638
Flexural Modulus - 1% Secant ²	108000 psi	745 MPa	ASTM D790B
Impact	Nominal Value (English)	Nominal Value (SI)	Test Method
Impact Strength			ARM
-40°F (-40°C), 0.250 in (6.35 mm), Rotational Molded	188 ft-lb	255 J	
Thermal	Nominal Value (English)	Nominal Value (SI)	Test Method
Deflection Temperature Under Load ²			ASTM D648
66 psi (0.45 MPa), Unannealed	131 °F	55.0 °C	
264 psi (1.8 MPa), Unannealed	104 °F	40.0 °C	
Melting Temperature (DSC)	259 °F	126 °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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Additional Information

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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