Technical Data Sheet

RESILITY™ DPDB-3220 NT 7 High Density Polyethylene Resin

Overview

RESILITY™ DPDB-3220 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: RESILITY™ DPDB-3220 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.

- 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
- Long term UV stabilization: UV-20+ stabilizer package

Complies with:

- U.S. FDA 21 CFR 177.1520 (c)3.1a (with restrictions)
- European Commission Regulation (EU) No 10/2011
- REACH
- NSF51 and NSF 61
- UL94 HB, UL746C

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	0.942	g/cm^3	0.942	g/cm^3	ASTM D792
Melt Mass-Flow Rate (190°C/2.16 kg)	2.0	g/10 min	2.0	g/10 min	ASTM D1238
Environmental Stress-Cracking Resistance (ESCR)[2]					ASTM D1693A
122°F (50°C), 100% Igepal, F50	> 500	hr	> 500	hr	

1. ASTM: American Society for Testing and Materials
2. 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 (Yield)	3500	psi	24.1	MPa	ASTM D638
Flexural Modulus - 1% Secant[2]	130000	psi	896	MPa	ASTM D790B
Impact					
Impact Strength					ARM
-40°F (-40°C), 0.250 in (6.35 mm), Rotational Molded	> 195	ft•lb	> 264	J	
Thermal					
Deflection Temperature Under Load					ASTM D648
[2]66 psi (0.45 MPa), Unannealed	136	°F	57.8	°C	
264 psi (1.8 MPa), Unannealed	104	°F	40.0		
Melting Temperature (DSC)	262	°F	128	°C	Dow Method

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