Technical Data Sheet

DOW™ LLDPE DNDA-8320 NT 7 Linear Low Density Polyethylene Resin

Overview

- Injection molding
- General purpose applications
- Excellent low temperature impact strength, rigidity, stress crack resistance and processability
- Very narrow molecular weight distribution
- Complies with U.S. FDA 21 CFR 176.170 (c)
- Complies with EU, No 10/2011
- Complies with U.S. FDA-DMF
- Complies with CANADIAN HPFB NO OBJECTION (WITH LIMITATIONS)
- Consult the regulations for complete details.

DOW™ DNDA-8320 NT 7 Linear Low Density Polyethylene (LLDPE) Resin is produced using the UNIPOL™ PE Process Technology and is intended for use in general purpose injection molding applications. This resin has been designed to have excellent impact strength, rigidity, environmental stress crack resistance and processability.

Additive

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

Properties

Physical	Nominal Value	Units (English)	Nominal Value	Units (SI)	Test Method[1]
Density	0.924	g/cm^3	0.924	g/cm^3	ASTM D792
Base Density[2]	0.924	g/cm^3	0.924	g/cm^3	Dow Method
Melt Index (190°C/2.16 kg)	20	g/10 min	20	g/10 min	ASTM D1238
Environmental Stress-Cracking Resistance (ESCR)					ASTM D1693
122°F (50°C), 100% Igepal, F50	20.0	hr	20.0	hr	
Mechanical					
Tensile Strength					ASTM D638
Yield	1700	psi	11.7	MPa	
Break	1100	psi	7.58	MPa	

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.

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	Units (English)	Nominal Value	Units (SI)	Test Method
Tensile Elongation					ASTM D638
Yield	3.0	%	3.0	%	
Break	60	%	60	%	
Flexural Modulus - 2% Secant	56000	psi	386	MPa	ASTM D790B
Impact					
Tensile Impact Strength[3]	80.0	ft-lb/in^2	168	kJ/m^2	ASTM D1822
Hardness					
Durometer Hardness (Shore D)	50		50		ASTM D2240
Thermal					
Deflection Temperature Under Load					ASTM D648
66 psi (0.45 MPa), Unannealed	109	°F	42.8	°C	
Brittleness Temperature	< -105	°F	< -76.1	°C	ASTM D746
Vicat Softening Temperature	201	°F	93.9	°C	ASTM D1525
Melting Temperature (DSC)	253	°F	123	°C	Dow Method
Peak Crystallization Temperature (DSC)	226	°F	108	°C	Dow Method
Additional Information					
Plaque molded and tested in accordance with ASTM D4976.					

3. Type S

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