



Technical Data Sheet

DOW™ LLDPE DNDB-7147 NT 7 Linear Low Density Polyethylene Resin

Regional Product Availability

North America

Description

DOW™ LLDPE DNDB-7147 NT 7 Linear Low Density Polyethylene (LLDPE) Resin is produced using UNIPOL™ PE Process Technology and is intended for use in injection molded applications such as food containers, housewares and lids. This resin has been designed to have an excellent balance of impact strength, rigidity, environmental stress crack resistance and processability.

Main Characteristics

- Injection molding
- Excellent low temperature impact strength, rigidity, stress crack resistance and processability
- Very narrow molecular weight distribution

Complies with

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

Consult the regulations for complete details.

Properties¹

Physical	Nominal Value	(English)	Nominal Value	(SI)	Test Method ²
Density	0.926	g/cm ³	0.926	g/cm ³	ASTM D792
Melt Index (190°C/2.16 kg)	50	g/10min	50	g/10min	ASTM D1238
Environmental Stress-Cracking Resistance (ESCR) 122°F (50°C), 100% Igepal, F50	5.00	hr	5.00	hr	ASTM D1693
Mechanical					
Tensile Strength					ASTM 638
Yield	1400	Psi	9.65	MPa	
Break	1100	Psi	7.58	MPa	
Tensile Elongation					ASTM 638
Yield	3.0	%	3.0	%	
Break	120	%	120	%	
Flexural Modulus – 2% Secant	61000	Psi	421	MPa	ASTM D790B

1. Typical properties: these are not to be construed as specifications. Users should confirm results by their own tests.
2. ASTM: American Society for Testing and Materials

Properties (Cont.)

Impact	Nominal Value	Unit	Nominal Value	(SI)	Test Method
Tensile Impact Strength ³	90.0	ft-lb/in ²	189	kJ/m ²	ASTM D1822
Hardness					
Durometer Hardness (Shore D)	52		52		ASTM D2240
Thermal					
Deflection Temperature Under Load 66 psi (0.45 MPa), Unannealed	113	°F	45.0	°C	ASTM D648
Brittleness Temperature	-105	°F	-76.1	°C	ASTM D746
Vicat Softening Temperature	194	°F	90.0	°C	ASTM D1525
Melting Temperature (DSC)	255	°F	124	°C	Internal Method
Peak Crystallization Temperature (DSC)	228	°F	109	°C	Internal Method
Additional Information					
Plaque molded and tested in accordance with ASTM D4976					

3. Type S

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Medical Applications Policy (Cont.)

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