



DOW™ LLDPE DNDB-7441 NT 7

The Dow Chemical Company - Linear Low Density Polyethylene Resin

Tuesday, November 5, 2019

General Information

Product Description

Industrial Standards Compliance:

- ASTM D 3350: cell classification PE123110A
- Complies with U.S. FDA 21 CFR 177.1520 (c) 3.1a
- Complies with EU, No 10/2011
- Consult the regulations for complete details.

DOW DNDB-7441 NT 7 Linear Low Density Polyethylene Resin is produced using UNIPOL™ process technology. It is intended for use in hose and tube applications. It also has utility in gasketing, spiral wound hose, and corrugated hose applications. It exhibits good draw down, excellent resistance to melt fracture, low temperature toughness, uniform matte surface finish, and exceptional flex life. It has a modulus (stiffness) that is 50% higher than that of a conventional high pressure, low density polyethylene resin of equal density. It is especially well suited for profile extrusions where stress cracking resistance, flexural wear resistance, and ease of extrusion are important. It is also recommended as a modifier in blends with flexible copolymers such as ethylene ethyl acetate (EVA) and ethylene ethyl acrylate (EAA) to enhance their rigidity in extrusion applications.

General

Material Status	• Commercial: Active
Availability	• North America
Agency Ratings	• ASTM D3350 PE123110A • FDA 21 CFR 177.1520(c) 3.1a
Forms	• Pellets
Processing Method	• Profile Extrusion

ASTM & ISO Properties ¹

Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity ²	0.920		ASTM D792
Melt Mass-Flow Rate			ASTM D1238
190°C/2.16 kg	0.60	g/10 min	
190°C/21.6 kg	44	g/10 min	
Environmental Stress-Cracking Resistance (ESCR) ³ (F0)	> 500	hr	ASTM D1693A
Mechanical	Nominal Value	Unit	Test Method
Tensile Strength ³ (Yield)	1600	psi	ASTM D638
Tensile Strength ³ (Break)	2250	psi	ASTM D638
Tensile Elongation ³ (Break)	800	%	ASTM D638
Flexural Modulus ^{4, 3}	45000	psi	ASTM D790B
Hardness	Nominal Value	Unit	Test Method
Durometer Hardness ³ (Shore D)	44		ASTM D2240
Thermal	Nominal Value	Unit	Test Method
Brittleness Temperature ³	< -148	°F	ASTM D746A

Processing Information

Extrusion	Nominal Value	Unit
Melt Temperature	385 to 430	°F

Extrusion Notes

Fabrication Conditions:

- Screw Type: All standard commercial extrusion equipment.
- Melt Temperature Range: 385-430 °F (195-220 °C)

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Notes

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

² Natural Resin

³ Compression molded parts prepared according to ASTM D 1928 Procedure C. Properties will vary with changes in molding conditions and aging time.

⁴ Method I (3 point load)