DOW™ LLDPE DNDB-7441 NT 7
Linear Low Density Polyethylene Resin

Overview

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.

Physical	Nominal Value	(English)	Nominal Value	(SI)	Test Method
Density [1]	0.918	g/cm³	0.918	g/cm³	ASTM D792
Melt Index					ASTM D1238
190°C/2.16 kg	0.60	g/10 min	0.60	g/10 min	
190°C/21.6 kg	44	g/10 min	44	g/10 min	
Environmental Stress-Cracking Resistance (ESCR) [2]					ASTM D1693A
F0	> 500	hr	> 500	hr	
Mechanical	**Nominal Value**	**(English)**	**Nominal Value**	**(SI)**	**Test Method**
Tensile Strength [2]					ASTM D638
Yield	1600	psi	11.0	MPa	
Break	2250	psi	15.5	MPa	
Tensile Elongation [2] (Break)	800	%	800	%	ASTM D638
Flexural Modulus [3, 2]	45000	psi	310	MPa	ASTM D790B
Hardness	**Nominal Value**	**(English)**	**Nominal Value**	**(SI)**	**Test Method**
Durometer Hardness [2] (Shore D)	44		44		ASTM D2240
Thermal	**Nominal Value**	**(English)**	**Nominal Value**	**(SI)**	**Test Method**
Brittleness Temperature [2]	< -148	°F	< -100	°C	ASTM D746A

Extrusion	Nominal Value	(English)	Nominal Value	(SI)
Melt Temperature	385 to 430	°F	196 to 221	°C

Extrusion Notes

Fabrication Conditions:

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

Notes

These are typical properties only and are not to be construed as specifications. Users should confirm results by their own tests.

[1] Natural Resin

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

[3] Method I (3 point load)