



DFDA-7540 NT

Linear Low-Density Polyethylene Insulation Compound

DFDA-7540 NT is a linear low-density polyethylene (LLDPE) extrusion compound produced by the UNIPOL™ PE Process. It is a general purpose insulation that can be used as a high speed telephone singles insulation (air-core cable only; not recommended for jelly-filled cable) and high frequency coaxial inner skin. It combines excellent electrical properties with outstanding stress crack and deformation resistance.

Specifications:

DFDA-7540 NT meets the following raw material specifications:

- ASTM D-1248 Type I Category 4, Grade E4, E5
- Federal LP-390 C, II-L, Grade 3, Category 4
- REA Specification PE-200, Appendix A
- ISO 1872-PE
- KHKN,18-D006

Cables insulated with DFDA-7540 NT using sound commercial extrusion practice, should meet the following industry cable specification:

- ASTM: D 1351-02
- EN-50290-2-23
- IEC 60708

Physical Properties	Test Method ⁽¹⁾	Unit	Typical Value ⁽²⁾
Property			
Density @ 23°C	ASTM D 792	g/cm ³	0.921
Melt Index	ASTM D 1238	g/10 min.	0.7
Tensile Strength	ASTM D 638	psi (MPa)	2300 (15.8)
Tensile Elongation	ASTM D 638	%	700
Environmental Stress Crack Resistance, F ₀ , 10% Igepal	ASTM D 1693	days	>21
Brittleness Temperature	ASTM D 746	°C	<-100

Electrical Properties	Test Method ⁽¹⁾	Unit	Typical Value ⁽²⁾
Property			
Dielectric Constant	ASTM D 1531	1 Hz	2.29
Dissipation Factor	ASTM D 1531	1 Hz	0.00007
DC Volume Resistivity, 23°C	ASTM D 257	ohm-cm	>1x10 ¹⁶
Dielectric Strength, 125 mils (3.175 mm) Short Time (S/T)	ASTM D 149	V/mil (KV/mm)	500 (19.7)

(1) Tests are made in accordance with current ASTM or Dow Methods

(2) Values are typical, and not to be construed as specifications.

PROCESSING TECHNIQUES

DFDA-7540 NT provides excellent surface finish at high coating speeds. For optimum results, use melt extrusion temperatures in the suggested range of 400 to 425°F (205 to 220°C). However, specific recommendations for processing conditions can be determined only when the application and type of processing equipment are known.

