



# AXELERON™ CS 7540 NT CPD

## Linear Low Density Polyethylene Insulation Compound

### Overview

AXELERON™ CS 7540 NT CPD is a linear low-density polyethylene (LLDPE) extrusion compound ("CPD") 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 resistance.

#### Specifications:

AXELERON™ CS 7540 NT CPD 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 AXELERON™ CS 7540 NT CPD using sound commercial extrusion practice, should meet the following industry cable specification:

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

Physical	Nominal Value (English)	Nominal Value (SI)	Test Method
Density	0.921 g/cm <sup>3</sup>	0.921 g/cm <sup>3</sup>	ASTM D1505
Melt Mass-Flow Rate (190°C/2.16 kg)	0.70 g/10 min	0.70 g/10 min	ASTM D1238
Environmental Stress-Cracking Resistance (ESCR)			ASTM D1693
10% Igepal, F0	> 504 hr	> 504 hr	
Mechanical	Nominal Value (English)	Nominal Value (SI)	Test Method
Tensile Strength	2300 psi	15.9 MPa	ASTM D638
Tensile Elongation (Break)	700 %	700 %	ASTM D638
Thermal	Nominal Value (English)	Nominal Value (SI)	Test Method
Brittleness Temperature	< -148 °F	< -100 °C	ASTM D746
Electrical	Nominal Value (English)	Nominal Value (SI)	Test Method
Volume Resistivity (23°F (-5°C))	> 1.0E+16 ohms-cm	> 1.0E+16 ohms-cm	ASTM D257
Dielectric Strength			ASTM D149
0.125 in (3.18 mm), Method A (Short-Time)	500 V/mil	20 kV/mm	
Dielectric Constant (1 Hz)	2.29	2.29	ASTM D1531
Dissipation Factor (1 Hz)	7.0E-5	7.0E-5	ASTM D1531
Extrusion	Nominal Value (English)	Nominal Value (SI)	
Melt Temperature	400 to 425 °F	204 to 218 °C	

#### Extrusion Notes

AXELERON™ CS 7540 NT CPD provides excellent surface finish at high coating speeds. For optimum results, use melt extrusion temperatures in the suggested range of 400 to 425°F (204 to 220°C). However, specific recommendations for processing conditions can be determined only when the application and type of processing equipment are known.

#### Notes

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

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