



# AXELERON™ CS O-3364 NT CPD

## High Density Polyethylene Solid Insulation Compound

### Overview

AXELERON™ CS O-3364 NT CPD is a high molecular weight, high-density polyethylene insulation compound ("CPD") providing excellent oxidative stability, toughness and abrasion resistance. AXELERON™ CS O-3364 NT CPD also provides excellent processing capability in high speed insulating extrusion processes. The AXELERON™ CS O-3364 NT CPD insulation compound has been optimized to yield increased insulation to conductor adhesion. The increased conductor adhesion improves processing latitude and insulation shrinkback performance for heavy wall insulation and tight pair twisting applications such as data grade LAN.

AXELERON™ CS O-3364 NT CPD provides good performance across the full range of twisted pair telecommunication insulation applications. AXELERON™ CS O-3364 NT CPD readily meets Telcordia and ICEA requirements as well as most international age testing standards and specifications for both solid and foam/skin telephone cable insulation use. In the demanding grease filled cable application, AXELERON™ CS O-3364 NT CPD provides superior long term aging performance meeting the stringent Telcordia testing requirements.

### SPECIFICATIONS

AXELERON™ CS O-3364 NT CPD meets the following material specifications:

- ASTM D 1248 Type III Category A-4, Grade E8 and E9
- Federal LP-390 C, II-H, Grades 1 and 2, Category 4

Telephone wire insulated with AXELERON™ CS O-3364 NT CPD, using sound cable design and fabrication practices, will meet the following specifications:

- Telcordia GR-421-CORE, Issue 1, December 1998, "Generic Requirements for Metallic Telecommunications Cables"
- ICEA S-84-608, "Telecommunications Cable; Filled, Polyolefin Insulated, Copper Conductor -Technical Requirements"
- REA PE 39, "Filled Telephone Cable"
- REA PE 89, "Filled Telephone Cable with Expanded Insulation"

Physical	Nominal Value (English)	Nominal Value (SI)	Test Method
Density	0.945 g/cm <sup>3</sup>	0.945 g/cm <sup>3</sup>	ASTM D792
Melt Mass-Flow Rate (190°C/2.16 kg)	0.80 g/10 min	0.80 g/10 min	ASTM D1238
Mechanical	Nominal Value (English)	Nominal Value (SI)	Test Method
Tensile Strength	3400 psi	23.4 MPa	ASTM D638
Tensile Elongation (Yield)	500 %	500 %	ASTM D638
Thermal	Nominal Value (English)	Nominal Value (SI)	Test Method
Oxidation Induction Time (392°F (200°C))	170 min	170 min	ASTM D4565
Thermal Stress Crack Resistance	> 96 hr	> 96 hr	ASTM D2951
Electrical	Nominal Value (English)	Nominal Value (SI)	Test Method
Volume Resistivity	> 1.0E+15 ohms·cm	> 1.0E+15 ohms·cm	ASTM D257
Dielectric Constant (1 MHz)	• 2.32	• 2.32	ASTM D1531
	• 2.32	• 2.32	
Dissipation Factor (1 MHz)	• 6.0E-5	• 6.0E-5	ASTM D1531
	• 6.0E-5	• 6.0E-5	
Extrusion	Nominal Value (English)	Nominal Value (SI)	
Cylinder Zone 1 Temp.	302 °F	150 °C	
Cylinder Zone 3 Temp.	374 °F	190 °C	
Cylinder Zone 5 Temp.	446 °F	230 °C	
Die Temperature	446 °F	230 °C	

