



AXELERON™ CC 3485 NT CPD

High Density Polyethylene Cellular Insulation Compound

Overview

AXELERON™ CC 3485 NT CPD is an expandable, high-molecular weight, high-density polyethylene insulation compound ("CPD") specifically formulated for foam/skin telephone singles. It incorporates a chemical blowing agent which enables this material to attain up to 50 percent expansion via temperature-controlled extrusion. This highly stabilized product has superior mechanical and electrical properties and has been designed for high-speed extrusion.

Specifications:

Telephone wire insulated with AXELERON™ CC 3485 NT CPD using sound commercial extrusion practices, should meet the following cable specifications:

- REA PE "Filled Telephone Cable with Expanded Insulation"
- ICEA S-84-608 "Telecommunications Cable; Filled, Polyolefin Insulated, Copper Conductor - Technical Requirements"

Physical	Nominal Value (English)	Nominal Value (SI)	Test Method
Density ¹	0.945 g/cm ³	0.945 g/cm ³	ASTM D792
Melt Mass-Flow Rate ² (190°C/2.16 kg)	0.85 g/10 min	0.85 g/10 min	ASTM D1238
Mechanical	Nominal Value (English)	Nominal Value (SI)	Test Method
Tensile Strength ¹	3200 psi	22.1 MPa	ASTM D638
Tensile Elongation ¹ (Break)	700 %	700 %	ASTM D638
Thermal	Nominal Value (English)	Nominal Value (SI)	Test Method
Thermal Stress Crack Resistance - F0	> 96 hr	> 96 hr	ASTM D2951
Electrical	Nominal Value (English)	Nominal Value (SI)	Test Method
Volume Resistivity (73°F (23°C))	> 1.0E+15 ohms·cm	> 1.0E+15 ohms·cm	ASTM D257
Dielectric Constant ¹ (1 MHz)	2.34	2.34	ASTM D1531
Dissipation Factor ¹ (1 MHz)	3.0E-4	3.0E-4	ASTM D1531

Extrusion Notes

AXELERON™ CC 3485 NT CPD is expanded by temperature-controlled extrusion. Exact extrusion conditions depend upon extruder size, trough position, conductor preheat, line rate and the degree of expansion desired. 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.

¹ Solid

² Base resin

