AXELERON™ CS K-3364 NT CPD

High Density Polyethylene Solid Insulation Compound

The Dow Chemical Company

Message:

AXELERON™ CS K-3364 NT CPD is a high-molecular weight, high-density polyethylene insulation compound ("CPD") specifically formulated to provide excellent oxidative stability, toughness, and abrasion resistance. It provides superior long term aging performance, while providing excellent environmental and thermal stress-cracking resistance. In addition, AXELERON™ CS K-3364 NT CPD provides excellent processability for high-speed wire insulating extrusion processes.
AXELERON™ CS K-3364 NT CPD provides good performance for telephone insulation applications, primarily cable designs for aerial environments.
AXELERON™ CS K-3364 NT CPD is optimized to meet major international age testing standards and specifications for both solid and foam/skin insulation use.
Specifications
AXELERON™ CS K-3364 NT CPD meets the following raw 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
ISO 1872-PE, KHKN,45-D006
Telephone wire insulated with AXELERON™ CS K-3364 NT CPD, using sound commercial extrusion practices, should meet the following cable specifications:
ICEA S-84-608
EN-50290-2-23
IEC 60708
DIN VDE 0819-103
BS 6234 type H03
NF C 32-060

General Information	
Uses	Thin wall insulation
	Telephone insulator
	Wire and cable applications
	Solid insulation
	Communication wire insulation material
Agency Ratings	ASTM D 1248, III, Class A, Cat. 4, Grade E8
	ASTM D 1248, III, Class A, Cat. 4, Grade E9
	BS 6234 Type H03
	EN 50290-2-23
	FED L-P-390C, Type II, Class H, Category 4, Grade 1
	ICEA S-84-608
	IEC 60708
	NF C 32-060
Forms	Particle

Physical	Nominal Value	Unit	Test Method
Density	0.947	g/cm³	ASTM D792
Melt Mass-Flow Rate (MFR) (190°C/2.16 kg)	0.75	g/10 min	ASTM D1238

Environmental Stress-Cracking Resistance (100°C, 100% Igepal, F0)	> 48.0	hr	ASTM D1693
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Strength	23.4	MPa	ASTM D638
Tensile Elongation (Break)	500	%	ASTM D638
Aging	**Nominal Value**	**Unit**	**Test Method**
Tensile strength retention-48 hrs (100°C)	90	%	ASTM D638
Elongation retention rate-48 hrs (100°C)	90	%	ASTM D638
Heat resistant stress crack-F0	> 96	hr	ASTM D2951
Thermal	**Nominal Value**	**Unit**	**Test Method**
Brittleness Temperature [1]	-76.0	°C	ASTM D746
Electrical	**Nominal Value**	**Unit**	**Test Method**
Volume Resistivity (23°C)	> 1.0E+15	ohms·cm	ASTM D257
Dielectric Constant [2] (1 MHz)	2.32		ASTM D1531
Dissipation Factor (1 MHz)	6.0E-5		ASTM D1531
Extrusion	**Nominal Value**	**Unit**	
Melt Temperature	218 - 260	°C	

Extrusion instructions

AXELERON™ CS K-3364 NT CPD provides excellent surface finish and good output rates over a broad range of extrusion conditions. AXELERON™ CS K-3364 NT CPD is typically extruded at melt discharge temperatures ranging from 218-260°C (425-500°F) using conductor preheats ranging from 110-140°C (230-290°F). Specific extrusion conditions can be recommended only when the application, processing speed and processing equipment details are known.

NOTE

1.	F0
2.	After 14 days Water Immersion at 23°C (73°F)

Recommended distributors for this material

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