



AXELERON™ GP D-0588 BK CPD

Black Low Density Polyethylene Compound for Cable Jacketing

Overview

AXELERON™ GP D-0588 BK CPD, with a density of 0.93, and a melt index of 0.2, is a prime quality telephone telecom cable black jacketing compound ("CPD"). It offers excellent environmental stress cracking resistance, outdoor weatherability, toughness, low temperature performance, and extrudability.

AXELERON™ GP D-0588 BK CPD can be used by wire and cable manufacturers for the entire range of telephone telecom cable sizes and configurations. It is suitable for both aircore and jelly-filled construction, and in both aerial and buried applications.

Specifications

AXELERON™ GP D-0588 BK CPD meets the following raw material specifications:

- ASTM D 1248 IC-5 Grades, E5, J1 J3
- ISO 1872-1-PE, KCHL, 23-D003
- Federal LP-390 C, III-L, Grades 2,3, and 4, Category 5
- REA PE-22, 38, 39, 86, 89, 90

Cable jacketed with AXELERON™ GP D-0588 BK CPD using sound commercial extrusion practices, should meet the following specifications:

- ICEA: S-61-402; NEMA WC 5
- ANSI: C8. 35
- ASTM: D 2308
- British Telecommunications plc M132
- Telcordia GR 421 Core
- ANSI/ICEA S-84-608-1988
- EN 50290-2-24, grade LD
- IEC 60708
- BS 6234: Type 03C, TS1

Physical	Nominal Value (English)	Nominal Value (SI)	Test Method
Density	0.931 g/cm ³	0.931 g/cm ³	ASTM D1505
Melt Mass-Flow Rate (190°C/2.16 kg)	0.21 g/10 min	0.21 g/10 min	ASTM D1238
Environmental Stress-Cracking Resistance (ESCR)			
10% Igepal, F0 ¹	> 2000 hr	> 2000 hr	IEC 60811-4-1/B
100% Igepal, F20	> 500 hr	> 500 hr	ASTM D1693
Carbon Black Content	2.6 %	2.6 %	ASTM D1603
Absorption Coefficient - (kAB/m)	> 400	> 400	ASTM D3349
Mechanical	Nominal Value (English)	Nominal Value (SI)	Test Method
Tensile Strength ²			ASTM D638
Yield	1350 psi	9.31 MPa	
--	2550 psi	17.6 MPa	
Tensile Elongation ² (Break)	800 %	800 %	ASTM D638
Hardness	Nominal Value (English)	Nominal Value (SI)	Test Method
Shore Hardness (Shore D, 15 sec)	50	50	ISO 868
Thermal	Nominal Value (English)	Nominal Value (SI)	Test Method
Brittleness Temperature	< -130 °F	< -90.0 °C	ASTM D746
Oxidation Induction Time			ISO 11357-6
392°F (200°C)	74 min	74 min	
410°F (210°C)	30 min	30 min	
Electrical	Nominal Value (English)	Nominal Value (SI)	Test Method
Dielectric Constant (1 Hz)	2.48	2.48	ASTM D1531
Dissipation Factor (1 MHz)	3.0E-4	3.0E-4	ASTM D1531

Extrusion	Nominal Value (English)	Nominal Value (SI)
Melt Temperature	400 to 440 °F	204 to 227 °C

Extrusion Notes

AXELERON™ GP D-0588 BK CPD provides excellent surface finish and outstanding output rates over a broad range of conditions. For optimum results, use melt extrusion temperatures in the suggested range of 400°F-440°F (200°C-235°C). However, specific recommendations for processing conditions can be determined only when the application and type of processing equipment are known.

This product contains a low moisture absorption carbon black and does not normally need drying. Under extremely high moisture conditions, there is some tendency for the carbon black to absorb moisture. If needed, hopper drying at 150°F-160°F (67°C-71°C) is recommended.

Notes

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

¹ Without oven conditioning.

² Type IV, 2.0 in/min (51 mm/min)

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