

# AXELERON™ GP K-3479 BK CPD

Black High Density Polyethylene Compound for Cable Jacketing

The Dow Chemical Company

Message:

AXELERON™ GP K-3479 BK CPD is a high-molecular weight, high density polyethylene compound ("CPD") produced from resin made by the UNIPOL™ process. AXELERON™ GP K-3479 BK CPD is a prime quality telephone and power cable black jacketing that provides good toughness, stress-cracking resistance, outdoor weatherability and abrasion resistance.

Specifications

AXELERON™ GP K-3479 BK CPD meets the following raw material specifications:

ASTM D-1248: Type III, Class C, Category 5, Grades E10 and J4, J5

Federal LP-390C: Type III, Class H, Grade 1, Category 5

REA PE 39 and PE 89 (Raw Material Sections)

Cable jacketed with AXELERON™ GP K-3479 BK CPD, using sound commercial extrusion practices, should meet the following specifications:

ICEA: S-61-402; NEMA WC5

REA PE 39 and PE 89

ANSI: C8.35

IEC 60502

General Information			
Uses	Cable sheath		
	Cable sheath		
	Wire and cable applications		
	Optical fiber cable		
Agency Ratings	ANSI C 8.35		
	ASTM D 1248, III, Class C, Cat. 5		
	ICEA S-61-402		
	IEC 60502		
	NEMA WC-5		
	REA PE-39		
	REA PE-89		
Forms	Particle		
Physical	Nominal Value	Unit	Test Method
Specific Gravity	0.952	g/cm <sup>3</sup>	ASTM D792
Melt Mass-Flow Rate (MFR) (190°C/2.16 kg)	0.20	g/10 min	ASTM D1238
Environmental Stress-Cracking Resistance (10% Igepal, F0)	> 336	hr	ASTM D1693
Carbon Black Content	2.6	%	ASTM D1603
Absorption Coefficient - (kAB/m)	> 400		ASTM D3349
Tensile strength retention-48 hrs (100°C)	90	%	ASTM D638
Elongation retention rate-48 hrs (100°C)	95	%	ASTM D638
Mechanical	Nominal Value	Unit	Test Method
Tensile Strength			ASTM D638

Yield	20.7	MPa	ASTM D638
--	29.0	MPa	ASTM D638
Tensile Elongation (Break)	800	%	ASTM D638
Flexural Modulus	1030	MPa	ASTM D790
Thermal	Nominal Value	Unit	Test Method
Brittleness Temperature <sup>1</sup>	< -100	°C	ASTM D746
Electrical	Nominal Value		Test Method
Dielectric Constant (1 MHz)	2.56		ASTM D1531
Dissipation Factor (1 MHz)	3.0E-4		ASTM D1531
Extrusion	Nominal Value	Unit	
Melt Temperature	232 - 249	°C	

#### Extrusion instructions

AXELERON™ GP K-3479 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 450-480°F (232-249°C). Hopper drying at 180°F (82°C) to remove moisture is recommended. However, specific recommendations for processing conditions can be determined only when the application and type of processing equipment are known.

#### NOTE

1. F50

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WECHAT