



AXELERON™ GP 6059 BK CPD

Black Linear Low Density Polyethylene Compound for Cable Jacketing

Overview

AXELERON™ GP 6059 BK CPD is a prime quality telephone cable black jacketing compound ("CPD"). It offers improved low temperature and high temperature performance plus excellent environmental stress-cracking resistance, outdoor weatherability, and toughness.

Specifications

AXELERON™ GP 6059 BK CPD meets the following raw material specifications:

- ASTM D 1248 IC-4, Grades E5, J1, J3
- Federal LP-390C III-L, Grades 2, 3, 4 and Category 4
- REA PE-22, 38, 39, 86, 89, 90 (Raw Materials Sections)
- ISO 1872-PE, KCH, 18-D006
- GB/T 15065

Cable jacketed with AXELERON™ GP 6059 BK CPD, using sound commercial extrusion practices, should meet the following specifications:

- ICEA: S-83-640
- ASTM D 2308
- Telcordia GR-421-CORE
- EN 50290-2-24
- IEC 60708
- YD/T 901
- IEC 60502 ST3, ST7
- IEC 60840 ST3, ST7
- HD 620 S2, Part 1, Table 4B, DMP 10, DMP 14, DMP 17
- ICEA S-94-649
- ICEA S-97-682
- ICEA S-108-720
- ICEA S-84-608
- YD/T 1092
- IEC 62067, ST3, ST7
- IEC 60794

Physical	Nominal Value (English)	Nominal Value (SI)	Test Method
Density	0.932 g/cm ³	0.932 g/cm ³	ASTM D792
Melt Mass-Flow Rate (190°C/2.16 kg)	0.60 g/10 min	0.60 g/10 min	ASTM D1238
Environmental Stress-Cracking Resistance (ESCR) ¹			ASTM D1693
10% Igepal, F0	> 1000 hr	> 1000 hr	
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			
-- ^{2,3}	2350 psi	16.2 MPa	ASTM D638
--	3050 psi	21.0 MPa	IEC 60811-502
Tensile Elongation			
Break ^{2,3}	700 %	700 %	ASTM D638
Break	900 %	900 %	IEC 60811-502
Thermal	Nominal Value (English)	Nominal Value (SI)	Test Method
Brittleness Temperature			ASTM D746
-- ⁴	< -148 °F	< -100 °C	
-- ⁵	< -105 °F	< -76.0 °C	
Oxidation Induction Time (392°F (200°C))	120 min	120 min	ASTM D3895

Electrical	Nominal Value (English)	Nominal Value (SI)	Test Method
Dielectric Constant (1 MHz)	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	425 to 475 °F	218 to 246 °C

Extrusion Notes

AXELERON™ GP 6059 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 425 to 475°F (218 to 246°C).

Hopper drying at 150-160°F (67-71°C) is recommended to remove moisture.

Notes

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

¹ Typical value per IEC 60811-406 > 1000 hrs.

² Type IV

³ Speed 20 in/min (500mm/min)

⁴ F50

⁵ Notched, F50

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Additional Information

North America		Europe/Middle East	+800-3694-6367
U.S. & Canada:	1-800-441-4369		+31-11567-2626
	1-989-832-1426	Italy:	+800-783-825
Mexico:	+1-800-441-4369		
Latin America		South Africa	+800-99-5078
Argentina:	+54-11-4319-0100		
Brazil:	+55-11-5188-9000		
Colombia:	+57-1-219-6000	Asia Pacific	+800-7776-7776
Mexico:	+52-55-5201-4700		+603-7965-5392

www.dowplastics.com

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Published: 2005-11-17

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