# AXELERON™ FO 6318 BK CPD

### Black High Density Polyethylene Compound for Cable Jacketing

The Dow Chemical Company

#### Message:

High density cable sheath material

AXELERON<sup>TM</sup>FO A- 6318 BK is a kind of UNIPOL<sup>TM</sup>High density polyethylene sheath material prepared by PE process. This material is easy to process, has small shrinkage, and has a good balance in toughness, stress cracking resistance, wear resistance and weather resistance. AXELERON<sup>TM</sup>FO A- 6318 BK is suitable as a sheath material for optical cable cables.

Specifications

AXELERON™FO A- 6318 BK meets the following raw material specifications:

ASTM D 1248 Type III, Class C, Category 4, Grades E8, E9

Under the conditions of adopting the correct commercial extruder extrusion processing specifications, use AXELERON<sup>™</sup>The wires and cables of FO A-6318 BK as sheath material shall meet the following specifications:

ICEA: S-61-402 ANSI: C8.35 REA PE 39 and PE 89

General Information

IEC 60502

Uses	Cable sheath				
	Wire and cable applications				
	Optical fiber cable				
Agency Ratings	ANSI C 8.35	ANSI C 8.35			
	ASTM D 1248, III, Class C, Cat. 4 2				
	FED L-P-390C, Type II, Class H, Category 4, Grade 1 3				
	ICEA S-61-402	ICEA S-61-402			
	IEC 60502				
	REA PE-39				
	REA PE-89				
Forms	Particle				
Physical	Nominal Value	Unit	Test Method		
Specific Gravity	0.954	g/cm³	ASTM D792		
Specific Gravity Melt Mass-Flow Rate (MFR) (190°C/2.16	0.954	g/cm³	ASTM D792		
Specific Gravity Melt Mass-Flow Rate (MFR) (190°C/2.16 kg)	0.954	g/cm³ g/10 min	ASTM D792 ASTM D1238		
Melt Mass-Flow Rate (MFR) (190°C/2.16 kg) Environmental Stress-Cracking Resistance (10% Igepal, F0)	0.954 0.70 > 450	g/cm³ g/10 min hr	ASTM D792 ASTM D1238 ASTM D1693		
Melt Mass-Flow Rate (MFR) (190°C/2.16 kg) Environmental Stress-Cracking Resistance (10% Igepal, F0) Carbon Black Content	0.954 0.70 > 450 2.6	g/cm³ g/10 min hr %	ASTM D792 ASTM D1238 ASTM D1693 ASTM D1603		
Melt Mass-Flow Rate (MFR) (190°C/2.16 kg) Environmental Stress-Cracking Resistance (10% Igepal, F0) Carbon Black Content Absorption Coefficient - (kAB/m)	0.954 0.70 > 450 2.6 > 400	g/cm³ g/10 min hr %	ASTM D792 ASTM D1238 ASTM D1693 ASTM D1603 ASTM D3349		
Specific Gravity   Melt Mass-Flow Rate (MFR) (190°C/2.16   kg)   Environmental Stress-Cracking Resistance   (10% Igepal, F0)   Carbon Black Content   Absorption Coefficient - (kAB/m)   Heat resistant stress crack-F0	0.954 0.70 > 450 2.6 > 400 > 336	g/cm³ g/10 min hr % hr	ASTM D792 ASTM D1238 ASTM D1693 ASTM D1603 ASTM D3349 ASTM D2951		
Specific Gravity   Melt Mass-Flow Rate (MFR) (190°C/2.16   kg)   Environmental Stress-Cracking Resistance   (10% Igepal, F0)   Carbon Black Content   Absorption Coefficient - (kAB/m)   Heat resistant stress crack-F0   Mechanical	0.954 0.70 > 450 2.6 > 400 > 336 Nominal Value	g/cm <sup>3</sup> g/10 min hr % //////////////////////////////////	ASTM D792 ASTM D1238 ASTM D1693 ASTM D1603 ASTM D3349 ASTM D2951 Test Method		
Specific GravityMelt Mass-Flow Rate (MFR) (190°C/2.16 kg)Environmental Stress-Cracking Resistance (10% Igepal, F0)Carbon Black ContentAbsorption Coefficient - (kAB/m)Heat resistant stress crack-F0MechanicalTensile Strength	0.954 0.70 > 450 2.6 > 400 > 336 Nominal Value 22.1	g/cm³ g/10 min hr % 2000 hr Unit MPa	ASTM D792 ASTM D1238 ASTM D1693 ASTM D1603 ASTM D3349 ASTM D2951 Test Method ASTM D638		
Specific GravityMelt Mass-Flow Rate (MFR) (190°C/2.16 kg)Environmental Stress-Cracking Resistance (10% Igepal, F0)Carbon Black ContentAbsorption Coefficient - (kAB/m)Heat resistant stress crack-F0MechanicalTensile StrengthTensile Elongation (Break)	0.954 0.70 > 450 2.6 > 400 > 336 Nominal Value 22.1 600	g/cm³ g/10 min hr % % hr Unit MPa %	ASTM D792 ASTM D1238 ASTM D1693 ASTM D1603 ASTM D3349 ASTM D2951 Test Method ASTM D638 ASTM D638		
Specific GravityMelt Mass-Flow Rate (MFR) (190°C/2.16 kg)Environmental Stress-Cracking Resistance (10% Igepal, F0)Carbon Black ContentAbsorption Coefficient - (kAB/m)Heat resistant stress crack-F0MechanicalTensile StrengthTensile Elongation (Break)Flexural Modulus	0.954 0.70 > 450 2.6 > 400 > 336 Nominal Value 22.1 600 896	g/cm³ g/10 min hr % % Unit MPa % MPa	ASTM D792 ASTM D1238 ASTM D1693 ASTM D1603 ASTM D1603 ASTM D2951 Test Method ASTM D638 ASTM D638 ASTM D638		

Thermal	Nominal Value	Unit	Test Method
CLTE - Flow (23°C)	1.3E-4	cm/cm/°C	Internal method
Electrical	Nominal Value		Test Method
Dielectric Constant (1 MHz)	2.50		ASTM D1531
Dissipation Factor (1 MHz)	3.0E-4		ASTM D1531
Extrusion	Nominal Value	Unit	
Melt Temperature	218 - 260	°C	
Extrusion instructions			

AXELERON<sup>m</sup> FO 6318 BK CPD Jacket Compound can be processed in a wide range of extrusion equipment using flat profiles of 425-500°F (218-260°C). Hopper drying at 175°F (80°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.

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#### Recommended distributors for this material

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