

DOW™ Electrical & Telecommunications

DGDA-1310 BK

Black High Density Polyethylene Compound for Cable Jacketing

The Dow Chemical Company

Message:

DGDA-1310 BK is a black HDPE jacket grade for power and telecom cable applications. The material provides excellent mechanical and physical properties and environmental stress crack resistance in combination with good processability.

DGDA-1310 BK can be extruded using conventional cable jacket techniques with melt temperatures typically between 200 and 230 °C.

Specifications.

DGDA-1310 BK meets the following Raw material specifications:

ASTM D 1248 Type III, Class C, Category 5, Grade J4, E8, E9, W8, W9

ISO 1872-PE, KHL, 50-D003

Cables jacketed with DGDA-1310 BK, using industry standard commercial extrusion practice, should meet the following cable specifications:

IEC 60502, ST 7

IEC 62067, ST 7

IEC 60840, ST 7

ICEA S-94 649

ICEA S-108 720

ICEA S-97 682

ICEA-S-87-640

BS 6234: Type H03C, TS2

Telcordia GR-70-CORE

HD 620 S2, Part 1, Table 4B, type DMP2, DMP 9-10, DMP 14-15, DMP 17

EN 50290-2-24

General Information			
Agency Ratings	ASTM D 1248, III, Class C, Cat. 5 Grade J4, E8, E9, W8, W9		
	BS 6234 Type H03C, TS2		
	EN 50290-2-24		
	HD 620 S2, Part 1, Table 4B, type DMP2, DMP 9-10, DMP 14-15, DMP 17		
	ICEA S-108-720		
	ICEA S-87-640		
	ICEA S-94-649		
	ICEA S-97-682		
	IEC 60502 Type ST7		
	IEC 60840 Type ST7		
	IEC 62067 Type ST7		
	ISO 1872 PE KHL 50D003		
Forms	Pellets		
Physical	Nominal Value	Unit	Test Method
Specific Gravity	0.965	g/cm³	ASTM D792, ISO 1183
Melt Mass-Flow Rate (MFR)			ASTM D1238, ISO 1133
190°C/2.16 kg	0.26	g/10 min	
190°C/21.6 kg	28	g/10 min	

Environmental Stress-Cracking Resistance (50°C, 10% Igepal, F0)	> 1000	hr	IEC 60811
Carbon Black Content	2.5	%	ASTM D1603
Absorption Coefficient	445 K(AB/M)		ASTM D3349
Retention of Tensile Elongation - 14 days (110°C)	93	%	IEC 60811
Retention of Tensile Strength - 14 days (110°C)	93	%	IEC 60811
Oxidation Induction Time (200°C)	170	min	ASTM D3895
Hardness	Nominal Value	Unit	Test Method
Shore Hardness			ISO 868
Shore D, 1 sec	66		
Shore D, 3 sec	63		
Mechanical	Nominal Value	Unit	Test Method
Tensile Strength	29.0	MPa	IEC 60811
Tensile Elongation (Break)	820	%	IEC 60811
Flexural Modulus	1180	MPa	ISO 178
Taber Abrasion Resistance (100 Cycles)	21.0	mg	ASTM D1242
Thermal	Nominal Value	Unit	Test Method
Brittleness Temperature ¹	-76.0	°C	ASTM D746
Electrical	Nominal Value	Unit	Test Method
Volume Resistivity (23°C)	5.6E+16	ohms·cm	ASTM D257
NOTE			
1.	No Failure		

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