

HD010WB

High Density Polyethylene Black Compound Resin

Special Characteristics : PlastMate HD010WB is black bimodal high density polyethylene compound with excellent ESCR, and contains well-dispersed of high-quality carbon black for excellent weathering and UV resistance. This grade is suitable for producing medium to high voltage power cable jacketing.

Typical Applications : Medium to High power cable jacketing

International Standard : ASTM D1248 (Type III, Class C, Category 5)*, IEC60502-02 (ST7)**, IEC60840 (ST7)**

*PlastMate HD010WB grade meets the following raw materials specifications.

**Cable jacketing covered with PlastMate HD010WB is processed using sound commercial extrusion practices as well as the appropriate testing procedures, should meet the following cable specification.

Typical Properties:

Properties	PlastMate HD010WB	Unit	Test Method
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Physical and Mechanical Properties

Melt Index (190°C, 2.16 Kg)	0.13	g/10 min	ISO 1133
Density	0.958	g/cm ³	ISO 1183
Carbon Black Content	2.5	%	ISO 6964
Tensile Strength	33	MPa	ISO 527
Elongation at Break	900	%	ISO 527
Oxidation Induction Time (210°C)	60	Min	ISO 11357
ESCR, F ₀ (Condition B, 10% Igepal, 50°C)	> 5,000	Hours	ASTM D1693
Flexural Modulus	800	MPa	ISO 178
Durometer Hardness	64	Shore D	ISO 868

Electrical Properties

Volume Resistivity	10 ¹⁷	Ohm.cm	ASTM D257
Dielectric Strength	17	kV/mm	ASTM D149
Dielectric Constant, 1 MHz	2.5	-	ASTM D150
Dissipation Factor, 1 MHz	0.015	-	ASTM D150

Recommendation :

Recommended melt temperature: 180 – 230°C