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Hanwha Solutions

CLNA-8141SC

Wire & Cable Compound

High Voltage Cable Insulation **Density 0.921**

Description
CLNA-8141SC is a crosslinkable, low density polyethylene compound designed for high voltage power cable insulation requiring a high degree of cleanliness. It has an extremely low level of contamination and proper balance of non-staining antioxidant and peroxide to ensure thermal stability and optimum cure levels.

Applications
CLNA-8141SC can be used for the insulation of high voltage power cables with rated voltages up to 161 kV (Um 170kV).

Specifications
CLNA-8141SC meets the applicable requirements as below when processed using sound extrusion practice and testing procedure:

IEC 60840
ANSI/ICEA S-108-720
ANSI/ICEA S-93-639
Cenelec HD 632 S1
ANSI/ICEA S-94-649
ANSI/ICEA S-97-682
AEIC CS8, CS9

Physical Properties	Unit	Test Method	Typical Value
Density	g/cm^3	ASTM D1505	0.921
Tensile Strength	kg/cm^2	ASTM D638	200
Elongation	%	ASTM D638	550
Oven Aging @ 135°C, 7 days			
Retention of Tensile Strength	%	ASTM D638	>90
Retention of Elongation	%	ASTM D638	>90
Hot/Set @ 200°C, $20N/cm^2$		IEC 60811-2-1	
Hot Elongation	%		<100
Permanent Set	%		<5
Cure Behavior @ 180°C (MDR)		HCY-I-24196	
Ts1	min.		>1
Mh-Ml	lb·in		>4.5
Moisture	ppm	HCY-I-24205	<200

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Electrical Properties	Unit	Test Method	Typical Value
Dielectric Constant @ 1 MHz	-	ASTM D150	<2.3
Dissipation Factor @ 1 MHz	-	ASTM D150	<0.0005
Dielectric Strength (E_0)	kV/mm	ASTM D149	>35
DC Volume Resistivity	ohm cm	ASTM D257	$>10^{16}$

1) These are typical properties and are not to be regarded as specifications.
2) Compression molded sample cured at 175 °C for 15 min.

Cleanliness
Cleanliness levels are ensured through inspection of extruded tapes using different camera and illumination constellations.

Processing Guidelines
CLNA-8141SC provides excellent surface finish and higher output rates over a broad range of conditions. A range of extrusion temperature in processing condition is 115~130 °C. Optimum results are normally achieved at a melt resin temperature of approximately 130 °C.

Storage
The material should be stored indoors (10~30°C) in closed original packages in clean and dry environment. It is recommended that the using of the product on a first-in, first-out basis be established. Then recommended storage time at customer should not exceed 18 months.

Quality Systems
Hanwha maintains a quality management system according to ISO 9001. This system provides traceability of individual batches and their production. If process is changed in a way that suspected to change the properties of the product, Hanwha will provide adequate information to the customer.

Certificate
Based on quality inspection data at production, Hanwha supplies an inspection certificate for each batch. The certificate contains:

Product name
Batch number
Production date
etc.

Data Sheet and Safety
Most data sheet and safety data sheets are available on Hanwha web site, http://hcc.hanwha.co.kr Please contact your Hanwha representative for more details on various aspects of safety, recovery and disposal of the product.

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