

# CLNA-8400

## Wire & Cable Compound

LLDPE Base Resin for Silane Crosslinking	<b>Melt Index</b>	<b>0.7</b>
Base Resin for Jacket and General Insulation	<b>Density</b>	<b>0.920</b>

### Description

CLNA-8400 is a linear low density polyethylene (LLDPE) produced by the UNIPOL process. Its broad molecular weight distribution offers an excellent process-ability and scorch stability. It combines excellent electrical properties with outstanding stress crack resistance.

### Applications

CLNA-8400 can be used as base resin of silane-crosslinked low voltage cable insulation, high speed telephone cable insulation and high frequency coaxial inner skin. CLNA-8400 is able to be used for natural colored jacket, if it mixed with UV stabilizer.

### Specifications

CLNA-8400 meets the applicable requirement as below when processed using sound extrusion practice and testing procedure:

ASTM D1248 Type I, Category 4, Grade E4, E5

Physical Properties	Unit	Test Method	Typical Value
Melt Index	g/10min	ASTM D1238	0.7
Density	g/cm <sup>3</sup>	ASTM D1505	0.920
Tensile Strength	kg/cm <sup>2</sup>	ASTM D638	180
Elongation	%	ASTM D638	600
Oven Aging @ 135 °C, 7 days			
Retention of Tensile Strength	%	ASTM D638	>90
Retention of Elongation	%	ASTM D638	>90
Hardness (Shore D, 1 sec.)	-	ASTM D2240	53
ESCR, F <sub>0</sub> @ 50 °C, 10 % Igepal	hrs	ASTM D1693	>2,000
Hot/Set (silane=0.8 phr)			
Hot Elongation	%	IEC 502	<90
Permanent Set	%	IEC 502	<4

1) Crosslinked in water at 90°C for 4 hours.

Electrical Properties	Unit	Test Method	Typical Value
Dielectric Constant @ 1 MHz	-	ASTM D150	<2.3
Dissipation Factor @ 1 MHz	-	ASTM D150	<0.0002
Dielectric Strength (E <sub>0</sub> )	kV/mm	ASTM D149	>20
DC Volume Resistivity	ohm cm	ASTM D257	>10 <sup>16</sup>

1) These are typical properties and are not to be regarded as specifications.

2) Compression molded sample prepared at 190°C for 15 min.

## Processing Guidelines

CLNA-8400 provides excellent surface finish and higher output rates over a broad range of conditions. A range of extrusion temperature in processing condition is 160~220 °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 1 year.

## 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.

