

LLDPE Base Resin for Silane Crosslinking
Base Resin for Jacket and General Insulation

Melt Index **0.7**
Density **0.920**

Description

CLNA-8400 is a linear low density polyethylene(LLDPE) produced by the UNIPOL process. Its broad molecular weight distribution offers an excellent processability 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 ³	ASTM D1505	0.920
Tensile Strength	kg/cm ²	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 ₀ @ 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 ₀)	kV/mm	ASTM D149	>20
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 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 (15~25 °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.

