



CORONA-ClearTM

CORONA-Protect[®]
resins

Electrical Protection with Corona Resistance



Protection for Motors, Transformers and Motor Repair

Ultimate Protection

ELANTAS PDG, Inc. continues the tradition of innovation by providing high performance electrical insulation with our **Co-Shield** system.

The combination of **CORONA-Clear™** & **CORONA-Protect®** provides a system that offers outstanding performance and protection in electrically demanding environments such as inverter drive motors.

CORONA-Clear™

CORONA-Clear™ is a superior magnet wire coating designed for use in inverter grade magnet wire.

- Excellent flexibility on wire
- Enhanced corona resistance



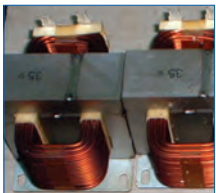
Protection from the Severest Environment

CORONA-Protect® resins



The **CORONA-Protect®** series of impregnating resins is designed to provide environmental and electrical protection in all types of electrical apparatus. The series includes products suitable for both motor and transformer applications.

CORONA-Protect® resins are included in UL recognized insulation systems up to 240.



- Good Moisture Resistance
- Good Bond Strength
- High Film Build
- Improved corona resistance
- UL Class 240

Application Methods

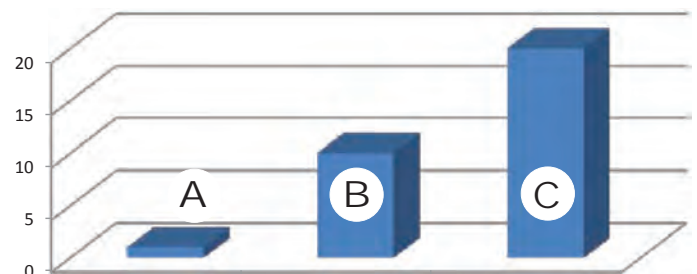
Dip and Bake

Trickle

VPI

(Vacuum Pressure Impregnation)

Pulse Endurance Chart



A Traditional Wire Coating

B CORONA-Clear™

C CORONA-Clear™ and CORONA-Protect®



Product Characteristics at a Glance

CORONA-Clear™

Wire Testing Results - ELANTAS PDG, Inc.

Wire Construction		CORONA-Clear®MW	Typical MW35
Base Coat		CORONA-Clear®3737	THEIC Polyester
Overcoat		Tritherm®A 981	Amideimide
American Wire Gauge		AWG 18	AWG 18

Electrical Properties	NEMA MW 1000		
Dielectric Strength at 25°C	3.8.1.1	12.5 kV	10.6 kV
Pulse Endurance (±1000V, 150°C 20 kHz)	EPDG Method	> 6100 minutes	< 10 minutes

Mechanical Properties			
Adherence and Flexibility			
20% Snap	3.3.1.1	Pass 1d	Pass 1d
Heat Shock			
20% Stretch - 30 m @ 220°C	3.5.1.1	Pass 3d	Pass 3d

CORONA-Protect® 82-8A03

Typical Properties of Material as Supplied

Property	Conditions	Value	Units
Viscosity	25°C / 77°C	1,000 - 2,000	cP
Sunshine Gel Time	125°C / 257°C	20 - 40	minutes
Flash Point	ASTM D93	53	°C
		127	°F

Electrical Properties	Test Method	Conditions	Value	Units
Dielectric Strength	ASTM D149	25°C / 77°F - 2 mils	2800	volts/mil

Mechanical Properties	Test Method	Conditions	Value	Units
Helical Coil Bond Strength over MW 35	ASTM D2519	25°C / 77°F	28	pounds
		150°C / 302°F	4	pounds

Cure Schedule - 2 hours @149°C / 300°F.

For More Information Ask For Our Technical Data Sheet

ELANTAS PDG, Inc.

ELANTAS Electrical Insulation

Around the world, ELANTAS Electrical Insulation companies are respected as market leaders in the development and manufacturing of impregnating resins (varnishes), wire enamel, potting compounds and casting resins for a number of electrical, industrial, aerospace and civil applications. No matter what your challenge, be assured that ELANTAS Electrical Insulation products will meet your most demanding needs.

ELANTAS PDG, Inc.

Today, ELANTAS PDG, Inc. is recognized as the premier global supplier of specialty polymers for the electrical and electronic industries. ELANTAS PDG, Inc. is a member of ALTANA's ELANTAS Electrical Insulation Division based in Wesel, Germany.

With the support of ALTANA and by working with other ALTANA divisions, we offer a unique global approach to research, manufacturing and service that translates into more creative solutions, dependable supply and consistently high quality.

Many ELANTAS PDG, Inc. products are recognized as components of electrical insulation systems in accordance with UL 1446. ELANTAS PDG, Inc. is registered to ISO 9001:2000 and ISO/TS 16949:2002- Second Edition.

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A member of  **ALTANA**



ELANTAS PDG, Inc. headquarters in St. Louis, Missouri

ELANTAS Electrical Insulation companies are strategically located throughout the world to meet the primary insulation, secondary insulation and electronic and engineering materials needs of our customers.

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ELANTAS Isolantes,

Electricos do Brasil

ASIA

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 **ELANTAS**
Electrical Insulation