



# Traction Motors

Liquid Electrical Insulation Resin Solutions

# Traction Motors

The move to electric cars and public transportation has been a key aspect of the green initiative in many countries globally. Public transportation, whether it be trains, trolleys, mass transit or high speed rail, removes cars from the road, which contributes to a green environment by reducing carbon dioxide (CO<sub>2</sub>) emissions. The changes in size and structure of the modern traction motors require a proven electrical system to protect against electrical, thermal or mechanical stresses.

## Product Summary

EpoxyLite®, Pedigree®, RanVar™, Sterling®, and CORONA-Protect® insulating resins are perfect for keeping your traction motors in top-performance condition day after day.

**EpoxyLite®** resins are used in overcoating and impregnation of armatures, stators and coils in motors and generators.

**Pedigree®** resins offer a long field service history in impregnation of motor coils.

**RanVar™** resins provide outstanding moisture and chemical resistance in small and large motor applications.

**Sterling®** resins have excellent stability and a long field history under demanding conditions. Used in the impregnation of small and large stators.

**CORONA-Protect®** resin is perfect for motors that are subject to high voltage and harsh environmental conditions.



ELANTAS PDG, Inc. is a team of professionals with access to the latest international research developments and technical advancements in the production of high quality electrical insulation products offering long term reliability.

## Solutions For

- Excessive Vibration
- Turn-to-Turn Failure
- Moisture Resistance
- Environmental Hazards
- Thermal Shock
- End Turn Movement
- Excessive Heat Rise
- Loose Coils



# Application Methods

VPI • Trickle

Dip & Bake



## Product Characteristics at a Glance

Product	Unique Characteristics	Thermal Class MW35 Twisted Pair	Viscosity cP @ 25°C/77°F	Voltage			Application Method		
				High	Medium	Low	VPI	Dip & Bake	Trickle
EpoxyLite® E 478 Thixo	A heat curing epoxy resin system designed for use with uncatalyzed tapes. Designed for use in medium voltage motors and generators as well as random wound motors. Offers low viscosity, thermal ratings up to 180°C, excellent stability and is not moisture sensitive. Included in multiple UL recognized insulation systems.	180	1500 - 3000		✓	✓	✓		
Pedigree® 433-75 VTC	An unsaturated polyester resin in vinyl toluene. It is an excellent choice for impregnation of stators with high bond strength. Included in multiple UL recognized insulation systems.	180	600 - 900	✓	✓	✓	✓	✓	
Pedigree® 5180 VT	An unsaturated polyester resin in vinyl toluene. Low temperature cure and flexibility make it an excellent choice for impregnation of small and large stators. It is a flexible resin system designed for noise suppression in transformers. Included in multiple UL recognized insulation systems.	180	150 - 200			✓		✓	✓
RanVar™ B7-373 VT RanVar™ B7-373 VTC	A semi-rigid, unsaturated polyester resin in vinyl toluene. Excellent penetration capability. Good film build for a single dip. Low dissipation factor at elevated temperatures. Excellent chemical and moisture resistance. Approved by various municipal transit authorities. Available in two-component and one-component pre-catalyzed versions. Included in multiple UL recognized insulation systems.	180	900 - 1200		✓	✓	✓	✓	
RanVar™ R2003 VTC	A unique copolymer resin in vinyl toluene. It exhibits excellent moisture and chemical resistance. It is a high bond strength resin used in the impregnation of small and large motors including high voltage. Included in multiple UL recognized insulation systems.	180	450 - 750	✓	✓	✓	✓	✓	
Sterling® PB 302-LV-2	A modified polybutadiene resin in vinyl toluene. Excellent impregnant for a wide variety of electrical apparatus. Superior long term moisture resistance. Low dissipation factor. Very low weight loss at high temperature. Designed for both AC and DC traction motor applications.	180	300 - 450		✓	✓	✓	✓	

For More Information Ask For Our Technical Data Sheets.



# 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 and ISO/TS 16949.

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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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