

Technical Data Sheet

Secondary Insulation

RanVar™ R2003AK VT

Unsaturated Copolymer Impregnating Resin

RanVar™ R2003AK VT

Product Description

RanVar™ R2003AK VT is a heat-cured, 100% solids copolymer resin in vinyl toluene monomer. It requires the addition of a peroxide catalyst for cure.

Areas of Application

Impregnation of small and large motor windings, form wound coils and transformers, including high voltage

Features and Benefits

- Chemical and moisture resistance of epoxy with enhanced thermal endurance
- Low viscosity for excellent penetration
- Resilient
- UL recognized insulation systems up to Class 220

Application Methods

- Vacuum-Pressure Impregnation
- Vacuum Impregnation
- Dip-and-Bake

Transportation / Storage

Store below 25°C / 77°F in a dry controlled environment out of direct sunlight. This material should be suitable for use stored under these conditions in the original sealed containers for six (6) months from the date of shipment.

Failure to store the product as recommended above may lead to deterioration in product performance.

Usable life may be extended by refrigerated storage at 5°C / 41°F.

For best results, VPI storage tanks should have a replenishment rate of 10% or more per month and employ cooling systems to maintain the resin at 20°C / 68°F or below.

Mix thoroughly before use

Health / Safety

Refer to the Material Safety Data Sheet.

Typical Properties of Material as Supplied

Property	Conditions	Value	Units
Viscosity	25°C / 77°F	450 - 750	cP
Weight per Gallon	25°C / 77°F	8.7 – 9.1	pounds
Catalyst	1% by weight	ELAN-Plus™ DCP-99 Catalyst	
Sunshine Gel Time	118°C / 244°F	10 - 20 ^[1]	minutes
Viscosity Reducer		ELAN-Plus™ BS-217 Diluent	
Gel Time Adjuster		ELAN-Plus™ BS-374 Inhibitor	
Flash Point	ASTM D93	53 127	°C °F

^[1] NOTE: Gel time may drift during shipment and storage. Refer to ELANTAS PDG Technical Bulletin *TI-4001 – Unsaturated Polyester Resin Maintenance* for adjustment instructions.

RanVar™ R2003AK VT

Underwriters Laboratories Recognition (ELANTAS File E75225)

Wire Construction	Helical Coil	Twisted Pair
NEMA MW16	Class 155	Class 220
NEMA MW35	Class 180	Class 180
NEMA MW76	Class 180	Class 180

UL Recognized Insulation Systems (ELANTAS File E87039)

Thermal Class	System
Class 130	MEGA I
Class 155	MEGA II
Class 180	MEGA III
Class 200	MEGA IV
Class 220	MEGA V

The above properties are typical values and are not intended for specification use.

ELANTAS PDG, Inc. warrants the chemical composition of its products within stated tolerances, but does not guarantee that a product will be appropriate for any particular application. Any recommendation, performance of tests or suggestion is offered merely as a guide and is not a substitute for a thorough evaluation by the user. No representative of ELANTAS PDG, Inc. has the authority to offer a warranty that a product will perform satisfactorily in manufacturing a product and no such representation should be relied upon.