



TECHNICAL BULLETIN
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PRODUCT INFORMATION

ULTIMEG 2050GC
SOLVENTLESS EPOXY
SINGLE COMPONENT
HIGH BUILD REINFORCED RESIN
CLASS 180

ULTIMEG 2050GC EPOXY TRICKLE REINFORCING RESIN

GENERAL DESCRIPTION

ULTIMEG 2050GC is a one-part epoxy resin that gives tough films of 250-400µm that work up to 180°C. It is designed to give reinforcement and strength to susceptible parts of rotating electrical equipment such as on single wires around the commutator and where the coil leads starts and finishes. Application of a thin stream of the material to the hot rotating winding spreads to give an evenly distributed gelled film with no drainage. This film when cured has exceptionally good mechanical and thermal properties.

The material may also be used as an enveloping coating to give extra protection to end windings or as a wet winding impregnant. In these applications the cured resin has excellent electrical, mechanical and chemical resistance characteristics and gives windings with improved heat transfer, and noise reduction properties.

APPLICATION

A trickle resin used to give reinforcement to susceptible parts of rotating electrical equipment such as the single wires on the commutator and where the coil leads starts and finishes.

SPECIFICATION:

VISCOSITY	200- 300 poise. thixotropic
NON-VOLATILE CONTENT	100% reactive polymer
SPECIFIC GRAVITY	1.36 - 1.42
COLOUR	White
FLASHPOINT	not applicable



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SHELF LIFE 2 months at 20°C

PROCESSING

METHOD - Trickle
 VISCOSITY - As supplied
 THINNERS - Not applicable

WORKSHOP PRACTICE

1. When trickling onto hot windings, ensure adequate ventilation. See material safety data sheet.
2. The system is designed to trickle onto windings at 100°C and above. At this temperature the material will have controlled rheology. This control ensures the flow of the material occurs around susceptible parts to give reinforcing build but does not drain off or flow onto commentators.
3. It will be necessary to optimise processing to determine the best speed of rotation shot size and temperature of application.
4. The material exhibits stable rheology with time.
5. Storage at temperatures even slightly above room temperature adverse effect on the stability of the product.

Typical cure schedules for small open static windings are shown below. (Temperatures are those of components).

CURE SCHEDULE

TIME (minutes)	45	30	20
TEMPERATURE (°C)	100	125	150

Infrared lamp or Induction heating can be used to achieve rapid cure times to allow for fast processing.



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PROPERTIES OF CURED VARNISH (Provisional)

Shore D hardness	DIN 53505	81
Deflection temperature	IEC1006	64°C
Tensile strength	ISO 527	35N/mm ²
Elongation at break	ISO 527	1.2 %
Thermal Conductivity	ISO 8894-1	0.25 W/M/K
Dielectric strength	IEC 243-1	168 Kv/cm.
Dielectric constant	IEC 250	4.56 @ 50Hz
Volume resistivity	IEC 93	> 10 ¹³ ohm/cm ³
CTI	IEC 112	>550V

HEALTH & SAFETY

Refer to Material Safety Data Sheet available.

PACKAGING

25 kg, 5 kg.

AEV Ltd, Issue no. 1 Date: 03.07

NOTE: Due to the introduction of improvements from time to time the right is reserved to supply products that may differ slightly from those illustrated or described in this publication.

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