



TECHNICAL BULLETIN

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PRODUCT INFORMATION

AQUAMEG 300

ALKYD PHENOLIC
GOOD BOND STRENGTH
VERY LOW VOC
WATER BASED
TANK STABLE
CLASS H (180°C)

AQUAMEG 300 CLASS H IMPREGNATING VARNISH

GENERAL DESCRIPTION

Aquameg 300 is a water-based alkyd phenolic, which produces a tough resilient film with good bond strengths at all operating temperatures up to Class H (180°C). Being water based it is non-flammable, low odour, does not require special storage facilities, and allows greater operator safety during processing. The varnish has a very low VOC (volatile organic content) giving lower environmental emissions. It exhibits excellent penetration through windings with clean drainage and low secondary drainage properties. Cured films have good mechanical properties, together with resistance to moisture mineral oils and chemicals.

APPLICATION

A water-based general-purpose varnish with minimal VOC for impregnation of transformers. Chokes, relays and fields, together with most types of electric motors.

SPECIFICATION:

VISCOSITY	40-60sec B4 cup at 25°C
NON VOLATILE CONTENT	30-34%
SPECIFIC GRAVITY	1.03 - 1.06
pH VALUE	8.2 - 9.0
VOC	<3%
FLASHPOINT	>100°C
SHELF LIFE	18 months at 20°C

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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PROCESSING

METHOD	-	Cold, hot dip or vacuum impregnation		
VISCOSITY	-	<u>Cold Dip</u>	<u>Hot Dip</u>	<u>Vacuum</u>
		-As supplied-		
REDUCER	-	Tap water or water cosolvent blend T68.		

WORKSHOP PRACTICE

Water based varnish in impregnating tanks should be checked for viscosity on a regular basis to ensure tank stability and consistent impregnation. A tank maintenance procedure is available on request.

Regular additions of fresh varnish to the tank are essential to maintain stability.

Tank samples will be analysed free of charge by our laboratories.

A temperature/viscosity graph is available on request.

The inclusion of a condenser and trap is recommended when vacuum techniques are applied..

CURE PRACTICE

For small components cure cycles as fast as 2 hours at 130°C will be found to be satisfactory.

But to establish maximum properties cure cycles of 12-16hours at 120°C up to 3 hours at 150°C may be required

The cure time chosen for impregnation is dependent on the size and type of component, and the oven efficiency. Typical figures are given.

Amore pleasing appearance can be achieved if the cure is staged holding at around 95-110°C to allow moisture to come out of the winding.

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PROPERTIES OF CURED VARNISH

BOND STRENGTH @ 20°C	ASTM D2519	22	Kg
BOND STRENGTH @ 150°C	ASTM D2519	3.5	Kg
BREAKDOWN VOLTAGE @ 20°C (DRY)	ASTM D115	135	KV/mm
BREAKDOWN VOLTAGE @ 20°C (AFTER 24 HOUR IMMERSION)	ASTM D115	112	KV/mm

HEALTH & SAFETY

Refer to Material Safety Data Sheet available.

PACKAGING

210 ltr, 25 ltr, 5 ltr

It is recommended that a Stainless Steel or suitably lined tank be used with this product.

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