



PRODUCT INFORMATION

ULTIMEG 2000/380

ALKYD PHENOLIC
EXCELLENT ELECTRICAL PROPERTIES
HIGH BOND
HIGH FLASH POINT
CLASS H (180°C)
UL FILE NUMBER E220579

ULTIMEG 2000/380 ALKYD PHENOLIC IMPREGNATING VARNISH
CLASS H

GENERAL DESCRIPTION

Ultimeg 2000/380 is a high flash, alkyd phenolic which produces tough resilient insulating films with excellent electrical and bond strength characteristics at all operating temperatures up to Class H (180°C). The varnish gives excellent penetration into windings with clean drainage and low secondary drainage properties. The system has excellent tank stability and is well suited for low usage larger tanks. The cured product has exceptionally good resistance to moisture and insulating oils, together with full cure in the deeper sections of windings. Good flexibility is shown around fly leads, and compatibility with all normal insulating systems is achieved. The varnish is also available for use in UL File No E321429 insulation systems AEV155-1 and AEV180-1

APPLICATION

A quality general purpose varnish for impregnation of transformers. Chokes, relays and fields, together with most types of electrical motors.

SPECIFICATION:

VISCOSITY	100 - 140 secs B4 flowcup @ 25°C
NON-VOLATILE CONTENT	45 - 50%
SPECIFIC GRAVITY	0.92 - 0.94
FLASHPOINT	40°C
SHELF LIFE	24 months at 20°C

PROCESSING

METHOD	-	Cold, hot dip or vacuum impregnation
VISCOSITY	-	<u>Cold Dip</u> <u>Hot Dip</u> <u>Vacuum</u>
		65 - 120 secs 65 - 150 secs
REDUCER	-	AEV ULTIMEG 2000/ T2, T3 or T4

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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WORKSHOP PRACTICE

Varnish in impregnating tanks should be checked for viscosity on a regular basis to ensure consistent impregnation.

A temperature/viscosity graph is available on request.

Solvent loss from the tank can be reduced by keeping the tank lidded when not in use.

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

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

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

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

CURE SCHEDULE

TIME (at temperatures) (hours)	4	2
TEMPERATURE (°C)	130	160

PROPERTIES ACCORDING TO ASTM

Preparation of specimens: 2 dips in reverse, each cured 2 h at 160°C

BOND STRENGTH

ASTM D 115 RT 20.5kg 150°C 1.8kg

DIELECTRIC STRENGTH RT

ASTM D 115 1660 V/0.01mm

(Copper plate)

24hr immersion in distilled water at 23°C

1220 V/0.01mm

WEIGHT LOSS 200°C

48hr 7.7%

ASTM D2756

96hr 10.6%

(On glass cloth)

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THERMAL ENDURANCE

Method ASTM D 1932 on glass cloth, curved electrode

Intercept 25,000 hours 167°C

According to UL 1446 Intercept 20.000h on enamelled wires

WIRE TYPE

	Twisted Pair	Helical coil
Polyurethane & Nylon (MW-28, class 130)	130	155
Polyester & Nylon (MW-24, class 155)	155	180
Polyester imide (MW-30, class 180)	180	200
Modif. Polyester & Amidimide (MW-35, class 200)	180	200
Polyamide (MW-16, class 220)	220	180

CHEMICAL RESISTANCE Ultimeg 2000/380 shows outstanding resistance to moisture, salt spray, tropic and arctic conditions (according to MIL-I-24092, grade CB, type M, class 155, specification from U.S Navy) and to corrosive environments.

Unaffected after immersion.

ASTM D-115 on copper panels curing 2 H 150°C

24 h	25°C	Acetone
24 h	25°C	Xylene
24 h	25°C	Sulphuric Acid
24 h	25°C	Caustic Soda
168 h	25°C	Kerosene
48 h	110°C	Transformer Oil
336 h	25°C	Synthetic Lubricants SKYDROL 500

HEALTH & SAFETY

Refer to Material Safety Data Sheet available.

PACKAGING

210 ltr, 25 ltr, 5 ltr

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