

# TECHNICAL DATA SHEET

JOHN C. DOLPH COMPANY

P.O. Box 267 320 New Road Monmouth Junction, NJ 08852 Ph:(732) 329-2333 Fax:(732) 329-1143 info@dolphs.com www.dolphs.com

# HI\_THERM<sup>®</sup> BC-346-A

# **CLEAR BAKING VARNISH**

## **PRODUCT DESCRIPTION**

BC-346-A is a specially formulated, high temperature varnish which can be used in a wide range of dip and bake applications.

## **FEATURES & BENEFITS**

- Excellent flexibility
- Excellent adhesion
- High film build
- Superior wetting properties

### **TYPICAL APPLICATIONS**

- Transformers
- Stators
- Form Wound Coils

- Military approval Qualified under MIL-I-24092, Grade CB, Class 155
- UL recognized varnish in systems up to 220°
- Random Wound Coils
- Armatures
- Relays

# TYPICAL PROPERTIES

#### Physical

Color/Appearance	Clear/Amber
Density @ 77°F (25°C), Lbs/gal	7.5 - 7.8
Viscosity @ 77°F (25°C), Brookfield Viscometer, cps	150 - 320
Flash Point, °F	54
Film Build, mils/side, ASTM D-115	2 - 3
Thinner (solvent)	T-200X
Corrosive Effect on Copper	None

All statements, technical information and recommendations related to Sellers' products are based on information believed to be reliable, but the accuracy or completeness thereof is not guaranteed. Before using the product, the user should determine the suitability of the product for its intended use. The user assumes all risks and liabilities whatsoever in connection with such use. The statements contained herein are made in lieu of all warranties, expressed or implied. Seller shall not be liable for any injury, loss or damage, direct or consequential, arising out of the use or inability to use its products. The sole liability of John C. Dolph Co., Inc. for any claims arising out of the manufacture, use or sale of its product shall be for the buyer's purchase price.

#### Mechanical

Bond Strength, Helical Coil Method, lbs to break	@25°C	28
	@150ºC	2.5

#### Electrical

Dielectric Strength ASTM D115, volts/mi	Dry wet	4,000 2,900
---	------------	----------------

#### **Chemical Resistance**

Water	Excellent
Acid (10% Sulfuric Acid)	Excellent
Alkali (1% Sodium Hydroxide)	Excellent
Salt Water	Excellent
Oil, ASTM D-115	Passed

### Thermal Class (UL-1446)

Twisted Pair	MW16	240
	MW24	155
	MW28	155
	MW30	180
	MW35	200
	MW76	180

Suggested Bake Cycles\*

1-2 hours @ 325°F

2-3 hours @ 300°F

2-4 hours @ 275°F

## **APPLICATION GUIDELINES**

#### Following is a suggested dip and bake cycle.

- 1. Preheat parts to 250-325°F to remove moisture. Note: If thermoset tapes are used, preset tapes according to tape manufacturer's recommendations.
- 2. Cool to I30°-140°F
- 3. Dip until bubbling stops (15-30 minutes).
- 4. Drain between 5-20 minutes
- 5. Bake in a preheated oven at recommended time and temperature

## STORAGE AND SHELF LIFE

Shelf life is one year from date of shipment from our plant, when stored in closed containers at 70°F or below.

- 1. Store in cool, dry place at 70°F/21°C or below.
- 2. Protect from direct sunlight and sources of heat
- 3. Keep away from heat, sparks and open flame.

#### SAFETY AND ENVIRONMENT

Avoid contact with skin and eyes. See Material Safety Data Sheet.



Times are taken after unit reaches baking temperature