



# TECHNICAL DATA SHEET

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## 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
- Military approval - Qualified under MIL-I-24092, Grade CB, Class 155 and 180
- UL recognized varnish in systems up to 220°C

#### TYPICAL APPLICATIONS

- Transformers
- Stators
- Form Wound Coils
- Random Wound Coils
- Armatures
- Relays

#### TYPICAL PROPERTIES

##### Physical

Color/Appearance	Light-Dark Amber
Density @ 77°F (25°C), Lbs/gal	7.4 - 7.8
Viscosity @ 77°F (25°C), Brookfield Viscometer, cps	150 - 320
Flash Point, °F	54
Film Build, mils/side, ASTM D-115	1.0 – 3.0
Thinner (solvent)	T-200X or T-100
VOC Content, ASTM D 6053, lbs/gal	3.8
Corrosive Effect on Copper	None

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**Mechanical**

Bond Strength, Helical Coil Method, lbs to break	@25°C	28
	@150°C	2.5
Thermal Conductivity, ASTM C 3111, BTU-in./hr-ft <sup>2</sup> -°F		2.4

**Electrical**

Dielectric Strength ASTM D115, volts/mi	Dry	4,000
	Wet	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

**APPLICATION GUIDELINES**

<p><b>Following is a suggested dip and bake cycle.</b></p> <ol style="list-style-type: none"> <li>Preheat parts to 250-325°F to remove moisture. <i>Note: If thermoset tapes are used, preset tapes according to tape manufacturer's recommendations.</i></li> <li>Cool to 130°-140°F</li> <li>Dip until bubbling stops (15-30 minutes).</li> <li>Drain between 5-20 minutes</li> <li>Bake in a preheated oven at recommended time and temperature</li> </ol>	<p><b>Suggested Bake Cycles*</b></p> <p>1-2 hours @ 325°F 2-3 hours @ 300°F 2-4 hours @ 275°F</p> <p>* Times are taken after unit reaches baking temperature</p>
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**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.

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

**SAFETY AND ENVIRONMENT**

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

AUTHORIZED DISTRIBUTOR