



- TECHNICAL DATA SHEET -

HI-THERM BC-346/A CLEAR BAKING VARNISH 215°C

DESCRIPTION

Hi-Therm BC-346/A Clear Baking Varnish is a modified polyester based varnish suitable for the impregnation of electrical machinery windings up to the Thermal Class 200°C.

It exhibits an outstanding compatibility with the Amide-Imide type wire enamels, as well as with conventional enamels.

It has the following outstanding properties:

- Excellent flexibility and adhesion
- Superior heat resistance, suitable up to 215°C
- Suitable for insulating systems in class A, B, F, H and 200°C.
- Military approved, qualified under MIL-V-1137A, grade CB, type M, and MIL-I-24092, type M, class 180.
- Underwriter's laboratories (U.L) recognized varnish, included in 130°C, 155°C, 180°C and 220°C insulating systems.

Recommended uses

Hi-Therm BC-346/A is suggested for applications where a high flexibility and an elevated heat resistance are required. It is particularly recommended for:

Stators	Low speed rotors	Transformers
Windings	Coils	

CHARACTERISTICS

Physical properties

Color	clear
Specific gravity at 25°C	970±20 gr./lt.
Viscosity in Ford Cup n.4 at 25°C	46-58"
Build-up, D.F.T. (ASTM D-115-55)	0,075-0,1mm
Thinner	Dolph's T-200
Baking time at 150°C on a copper strip (ASTM D-115-55)	30'
Baking time at 150°C in a 20 gr. test cup	65'
Corrosive effects on copper	none

Electrical properties

Dielectric strength (dry)	4.000Volts/mm.0,025
Dielectric strength after 24h. immersion in water	2.900Volts/mm.0,025

Chemical resistance

Water	Excellent
Acid (10% sulfuric acid)	Excellent
Alkali (1% sodium hydroxide)	Excellent
Salt water	Excellent
Mineral oil (ASTM D-115-55)	Excellent



APPLICATION

Hi-Therm BC-346/A is suitable for both atmospheric pressure and under vacuum impregnations. The following cycle is recommended as a starting point in the treatment at atmospheric pressure of most units:

1. Preheat the unit to 110°C.
2. Cool to 25-40°C.
3. Dip into the varnish for 15-30'.
4. Drain 15-30' (to obtain a high build-up, we suggest to shorten the draining time).
5. Place in the oven and bake according to one of the following cycles :
3-5h. at 135°C; 2-4h. at 150°C; 1-2h. at 165°C.

(Time must be taken after unit reaches the baking temperature).
For specific conditions, please consult us.

GENERAL PROPERTIES

Compatibility with magnet wire coatings

Hi-Therm BC-346/A is compatible with the following magnet wire coatings:

Amide-Imide	Polyamide	Polyurethane-Polyamide
Polyvinyl Formal	Polyurethane	Epoxy
Polyvinyl Formal-Polyamide	Polyimide	Textile
Polyester Amide-Imide	Polyester	

Heat life

Hi-Therm BC-346/A has a heat life of 20.000h. at 215°C and of 40.000h. at 205°C as determined by ASTM D-3251 (twisted pairs) specifications, using a polyester amide-imide magnet wire.

Solvent

Thin with Dolph's T-200.

Impregnation ability

The excellent wetting properties assure maximum penetration using either atmospheric or vacuum impregnating systems.

Dip tank stability

Long use experiences has proven Hi-Therm BC-346/A to have an excellent dip tank stability, even in the worst using conditions.

Warning: All the information and application instructions concerning this product are based on technical specifications that we consider reliable, and are provided by way of example, according to our application experience. They do not establish any guarantee but only represent a starting point subject to alterations, according to the application and the kind of material to be treated. Before the product's use the user must determine the suitability for the intended use undertaking all risks and responsibility for whatever may happen in connection with the application. The producer and/or seller will not be considered responsible for any accident, loss or damage (immediate or consequent) originating from the use and/or the inability to use the concerned product. Albesiano Sisa Vernici srl reserves the right to change or modify at any time and without any notice the technical specifications of the product described in this data sheet.

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