TECHNICAL DATA SHEET

HI-THERM BC-346-A
CLEAR BAKING VARNISH

DESCRIPTION

HI-THERM BC-346-A Clear Baking Varnish is a modified polyester based varnish suitable for impregnating electrical machinery windings.
It exhibits an outstanding compatibility with the Amide-Imide type wire enamels, as well as with conventional enamels.
It has the following outstanding features:

- UL approved (File OBOR2.E317427 and OBJS2.E317429)
- Military approved, qualified under MIL-V-1137A, grade CB, type M, and
- MIL-I-24092, type M, class 180
- Excellent adhesion
- Excellent flexibility
- Ready to use
- Excellent stability in tank

TYPICAL APPLICATIONS

Stators	Low speed rotors	Transformers
Windings	Coils	

CHARACTERISTICS

Physical properties	
Color	Clear
Density @ 25°C	970±30 g/l
Viscosity, Ford Cup n.4 @ 25°C	46-58”
Viscosity, ISO Cup n. 5 @ 25°C	60-80’’
Solid content	46±2%
Build up, D.F.T. (ASTM D-115-55, double coating)	25-50 µm
Baking time, @ 150°C (on a copper sheet)	30’
Baking time, @ 150°C (20 g of liquid varnish in sample holder)	65’
Corrosive effects on copper	None

Electrical Properties	
Dielectric Strength @ 25°C, ASTM D-115 (on a 25 µm thickness dry film)	>4000 V
Dielectric Strength @ 25°C, ASTM D-115 (25 µm, after 24h water immersion)	>2900 V
CTI according to IEC 60112	600 M

Thermal class according to UL 1446		
Magnet wire	**Twisted pairs**	**Helical coils**
MW 16-C	240°C	200°C
MW 24-C	155°C	180°C
MW 28-C	155°C	130°C
MW 30-C	180°C	180°C
MW 35-C	200°C	200°C
Curved electrode		180°C

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APPLICATION GUIDELINES

HI-THERM BC-346-A is suitable for both atmospheric pressure and under vacuum impregnations; if necessary, it can be diluted with DOLPH'S T-200 thinner.
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 - 5 h. at 135°C	2 - 4 h. at 150°C	1 - 2 h. at 165°C

(Times must be taken when unit reaches the baking temperature)

For specific application feel free to contact us

GENERAL PROPERTIES

Compatibility with magnet wire coatings
HI-THERM BC-346-A is compatible with the following magnet wires coatings:

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

STORAGE AND STABILITY

Store in a cool dry place (max 30°C) away from direct sunlight. Protect from moisture and humidity.
Shelf life is 36 months when stored in closed original container at max 30°C.

HANDLING PRECAUTION

Use in well ventilated area, avoid contact with skin and eyes and wear protective clothes.
For more details, see the SDS.

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 utilizer 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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