TECHNICAL DATA SHEET

HI-THERM BC-359
CLEAR BAKING VARNISH

DESCRIPTION

HI-THERM BC-359 is a versatile baking varnish specifically developed to provide the choice of a fast cure at lower temperature (saving energy), or an ultra –fast cure at higher temperature (saving time).
It has the following outstanding features:

- UL approved (File OBOR2.E317427 and OBJS2.E317429)
- Good bonding properties
- Good abrasion and chemical resistance
- Good moisture resistance
- Good stability

TYPICAL APPLICATIONS

Stators	Transformers	Coils
Low and medium speed Rotors	Windings	Generators

CHARACTERISTICS

Physical properties	
Color	Clear amber
Density @ 25°C	900±20 g/l
Viscosity, Ford Cup n.4 @ 25°C	50-60 sec
Viscosity, ISO Cup n.5 @ 25°C	60-80 sec
Viscosity, Brookfield @ 25°C	190-260 cps
Build up, D.F.T. (ASTM D-115-55)	75-100 µm
Curing time at 110°C on a copper strip (ASTM D-115)	30 min
Curing time at 110°C in 20 gram test cup	2 hours
Corrosive effects on copper	none

Electrical Properties	
Dielectric Strength @ 25°C, ASTM D-115 (on a 25 µm thickness dry film)	>3000 Volt
Dielectric Strength @ 25°C, ASTM D-115 (after 24 hrs water dipping)	>3000 Volt

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

ALBESIANO SISA vernici S.r.l. – Via Rigolfo, 73 - 10028 Trofarello (TO) – Italy
Tel. +39 011 6493111 – Fax +39 011 6493112 – E-mail info.albesiano@vonroll.com
Licenziataria per la produzione in Italia della JOHN C. DOLPH Co. Monmouth Junction – New Jersey - USA

APPLICATION GUIDELINES

HI-THERM BC-359 may be used either at atmospheric pressure or in VPI cycles; viscosity of the varnish can be adjusted by adding up to 25% of Dolph's T-200 thinner in order to have the desired varnish retention.

The following cycle is suggested as a starting point in the treatment of most units at athmoshperic pressure:

1. Thin the varnish according to the magnet wire diameter and the required varnish thickness,
2. Preheat units to 110°C;
3. Cool to 40-50°C;
4. Dip units into the varnish 10-20 minutes (until bubbling stops);
5. Drain for 10-20';
6. Place in oven and bake choosing one of the following cycles:

3 - 4 hours at 120°C	1 - 3 hours at 135°C	¾ - 2 hours at 150°C	½ - 1½ hours at 160°C

(Time must be taken after units reach the baking temperature)

The following cycle is suggested as a starting point for conveyor operation only:

1. Thin the varnish at 20%;
2. Preheat units to 50-60°C;
3. Dip 15-30 seconds;
4. Drain 2-4 minutes;
5. Place in the oven and bake according to one of cycles mentioned above.

For specific application feel free to contact us

GENERAL PROPERTIES

Compatibility with magnet wire coatings
HI-THERM BC-359 is compatible with the following magnet wires coatings:

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

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 its original closed containers 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.

File:	Issued on:	Updated on:	This document cancels and replace all previous ones.
BC-359 eng	19-04-2006	11-03-2015	

ALBESIANO SISA vernici S.r.l. – Via Rigolfo, 73 - 10028 Trofarello (TO) – Italy
Tel. +39 011 6493111 – Fax +39 011 6493112 – E-mail info.albesiano@vonroll.com
Licenziataria per la produzione in Italia della JOHN C. DOLPH Co. Monmouth Junction – New Jersey - USA