TECHNICAL DATA SHEET

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HI-THERM® BC-359CLEAR BAKING VARNISH

PRODUCT DESCRIPTION

BC-359 is a unique product that must be thinned before use. It offers energy savings and fast throughput.

FEATURES & BENEFITS

- Fast curing
- Low temperature cure (from 230℉)
- Superior moisture resistance – no loss of dielectric strength after 24 hours humidity conditioning
- Well suited for conveyorized systems
- Excellent abrasion and chemical resistance
- Solderable
- UL recognized systems to 180℃
- Prevents lead wire embrittlement

TYPICAL APPLICATIONS

- Coils
- Chokes
- Relays
- Motors
- Printed Circuit Boards
- Transformers
- Armatures
- Generators
- Random Wound Devices
- Form Wound Coils
- Stators
- Solenoids

TYPICAL PROPERTIES

Physical

	As Shipped	Thinned 25% (by volume) w/T-100
Color/Appearance	**Amber**	**Light-Dark Amber**
Density @ 77℉ (25 °C), Lbs/gal	**7.2 – 8.2**	**7.2 – 8.2**
Viscosity @ 77°F (25°C) Brookfield Viscometer cps	**180 - 340**	**20 - 80**
Flash point, °F	**60°F (15°C)**	**60°F (15°C)**
Film Build, mils/side, ASTM D-115	**1.5 – 2.0 mils**	**0.25 - 1 mils**
Thinner	**T-100**	**T-100**
Corrosive Effect on Copper	**None**	**None**
VOC, Method 24, (Lbs/gal average)	**4.4**	**--**

Mechanical Properties

Bond Strength, Helical Coil Method, lbs to break	**@25°C**	**28**
	@150°C	**3.5**

Electrical

Dielectric Strength, ASTM D-115, volts/mil	**Dry**	**3,000**
	Wet	**3,000**

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**	**220**
	MW24	**155**
	MW28	**130**
	MW35	**180**
	MW76	**180**

APPLICATION GUIDELINES

Following is a suggested dip and bake cycle.

1. Preheat parts to 250-325℉ to remove moisture.
   Note: If thermoset tapes are used, preset tapes according to tape manufacturer's recommendations.
2. Cool to I30°-140℉
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

Suggested Bake Cycles*

1-2 hours @ 325℉
2-3 hours @ 275℉
3-4 hours @ 250°F
6-9 hours @ 230°F

* *Times are taken after unit reaches baking temperature*

THINNING AND VARNISH MAINTENANCE

BC-359 must be thinned to obtain proper cure. A 20% - 25% thinning is recommended as a starting point. Actual thinning is determined by the build required.

BC-359 may be thinned with either T-200X or T-100. For *Rule 66* requirements, T-100 must be used.

STORAGE AND SHELF LIFE

Shelf life is one year from date of shipment from our plant, when stored in closed containers at 70℉ or below. Shelf Life (Spray) - 18 months @ 70℉ (21℃) or cooler.

1. Store in cool, dry place at 70℉/21℃ 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

JCD/ds/BC359.2/27/07

AUTHORIZED DISTRIBUTOR