

**Data sheet: HI-THERM BC-346-A**

**Designation HI-THERM BC-346-A Modified polyester resin-based**

**DESCRIPTION**

HI-THERM BC-346-A is a modified polyester resin-based varnish for impregnating windings of electrical equipment in thermal classes B, F and Compatible with enamelled wires such as Polyvinyl-formal, Polyester-Amide-Imide, Amide-Imide, Polyurethane-polyamide, Polyester, Polyimide.

BC-346/A is a specially formulated high temperature polyester varnish, which can be used in a wide variety of applications.

**PROPERTIES**

HI-THERM BC-346-A is used to impregnate a wide variety of components requiring high temperature resistance, such as:

- UL Certified – File OBOR2.E317427 and OBJS2.E317429
- Impregnating varnish
- Good flexibility
- Ready to use
- Superior wetting properties
- High film build
- Excellent adhesion

**CHARACTERISTICS**

Physical properties	
Color	Transparent yellow to red-brown
Specific gravity @ 25oC	970±30 g/L
Viscosity, ISO Cup 4 @ 25oC	60-80 seconds
Viscosity, Ford Cup 4 @ 25°C	46 – 58 seconds
Build, DFT (ASTM D-115-55)	0.075 - 0.100 mm
Corrosive effect on copper	None
Air-drying time on copper strip @ 150oC (ASTM D-115-55)	30 min
Baking time in a 20g test cup @ 150oC	60 min
Film thickness (double layer) ASTM D-155-55	25-50 µm

Electrical properties	
Electric strength, (dry / 0.025 mm film Thickness) ASTM D-115	>160 KV/mm
Electric strength, 24 hours in water/ 0.025 mm film thickness (ASTM D-115)	>116 KV/mm
Creep resistance CTI (IEC 60112)	>600 V

Thermal class (UL 1446 FILE)	Test method	
	Twisted Pair	Helical Coil
ANSI Wire Type		
MW16C	240°C	200°C
MW24C	155°C	180°C
MW28C	155°C	130°C
MW 30-C	180°C	180°C
MW 35-C	200°C	200°C
Curved electrode		180°C

<p><b>APPLICATION</b> Typical applications for HI-THERM BC-346-A are:</p> <ul style="list-style-type: none"> <li>• Transformers &amp; Stators</li> <li>• Random wound coils</li> <li>• Generators &amp; Relays</li> <li>• Armatures &amp; rotors</li> <li>• Random wound coils</li> </ul>	<p><b>STORAGE</b> 36 months at maximum 30°C in original packaging, away from sources of heat.</p>	<p><b>HARDENING</b> HI-THERM BC-346-A must be intended for industrial/professional use only. For more details, see the SDS.</p>
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## APPLICATION GUIDELINES

HI-THERM BC-346-A can be used either for impregnation at atmospheric pressure or in a vacuum autoclave. The following cycle is recommended for treating most parts at atmospheric pressure:

1	Preheat the room to 110°C (this step is not imperative).
2	Cool to 25-40°C.
3	Immerse in varnish for 5-10 minutes at this temperature.
4	Allow to drain for 20-30'.
5	Oven according to the following times: 3-5h @ 135°C, or 2-4h @ 150°C, or 1-2h @ 165°C. The times indicated should be calculated as soon as the part reaches the bake-out temperature.

For special bake-out cycles, please consult us

## Liability

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