

Product Description

VIBRA-TITE 933 is a long working life, heat curing, and two component formulation. It was designed especially for potting high voltage coils. The combination of low viscosity, excellent high temperature electrical properties and good thermal shock resistance makes this epoxy ideal for this application.

Use:

The VIBRA-TITE 933 is best handled with automatic mix/meter-dispensing equipment. The mixed material is introduced into preheated coils under vacuum. Depending on coil depth, pressure may be applied to insure complete penetration of the system into the coil windings. The potted coils are then cured at elevated temperatures.

Process Description:

Summary of potting ignition coils:

1. Preheat coils to 105-100°C for 2 hours
2. Preheat the resin to 95-105°C
3. Preheat the hardener to 60-70°C
4. Vacuum both resin and hardener to 0.5 torr
5. Introduce the epoxy system into coils under vacuum of 1 torr
6. Subject the filled coils to vacuum of 1 torr or less for 10 to 20 seconds
7. Cure using one of the following schedules:
 - a. 12 to 16 hours at 80-90°C
 - b. 2 hours at 90-95°C plus 2 hours at 115-125°C
 - c. 4 hours at 80-85°C plus 2 hours at 115-125°C plus 2 hours at 124-155°C

Handling Properties:

Mix Ratio (resin to hardener)

By Weight: 100:35
By Volume: 100:48

Viscosity @25°C

Resin 50,000
cps
Hardener 80
cps
Mixed TBD

Weight/Gallon @25°C

Resin 13.8
Hardener 10.1

Working Life @25° C 1 -2 Days

Typical Cure Schedules

12-16 hours @ 80-90°C
Or 2 hours @90-95°C
Plus 2 hours

Physical Properties:

Hardness (Shore D) 92
Specific Gravity @25° C 1.54
Glass Transition Temp (Tg) 98° C
Coefficient of Thermal Expansion:
CLTE1: 57 µm/m/°C
CLTE2: 122µm/m/°C

General Information

Storage

Product should be stored in cool, dry conditions. VIBRA-TITE 933 when un-mixed has a shelf life of 12 months when stored at 25°C. Storage in cool, clean areas is recommended. Usable shelf life may vary depending on method of applications and storage conditions.

Note

The data are furnished for information only and are believed to be reliable. We cannot assume responsibility for the results obtained by others over whose methods we have no control. It is recommended that the product be tested in the application for which it is to be used.