



B: PLASTIC FILMS:

The consideration of plastic films for special energy discharge applications has many advantages. Many low loss plastic films, when used with the proper impregnant, exhibit exceptional characteristics of high Q . Plastic films are also being used in conjunction with Kraft tissue to obtain additional improved characteristics.

C: IMPREGNANT:

The impregnant replaces the air or voids in the dielectric material. This improves the dielectric strength, dielectric constant, and corona-starting potential.

Sangamo Type EDC, Class B energy discharge capacitors are impregnated with Diaclor B, a non-flammable, halogenated hydrocarbon of the askarel type, which provides excellent operational characteristics.

Sangamo Type EDC, Class C energy discharge capacitors are impregnated with Complex C, a specially modified castor oil, which results in an improved life expectancy of 10 to 100 times that available with other commonly used materials. These capacitors are recommended for applications where severe discharge conditions are encountered.

SUMMARY:

The fulfillment of this research can be seen in the manufacturing facilities at Sangamo. The construction materials used must exactly meet the detailed procurement specifications and incoming inspection procedures before acceptance.

The careful designs which comply with all of the customer's requirements, the white glove construction techniques, and the in-process inspections are supervised by qualified manufacturing engineers.

The final electrical tests on all Type EDC capacitors are performed in the following sequence:

A. MEASUREMENTS

1. Capacitance
2. Dissipation factor
3. Insulation resistance

B. HIGH VOLTAGE TEST

125% of the rated voltage is applied for a period of one minute.

C. DISCHARGE TEST

Each unit is subjected to 10 discharges at the rated voltage with a peak discharge current in excess of 125,000 amperes and a voltage reversal of 90%.

D. MEASUREMENTS

1. Capacitance
2. Dissipation factor
3. Insulation resistance

The quality decision is then made and, if acceptable, a serial number is affixed to each capacitor. A complete manufacturing and testing dossier is filed under this serial number.