



# Insulation Specifications

## D/C MOTOR & GENERATOR CLASS "H" COIL SYSTEMS

# C

### SCOPE

**1.00** These specifications cover the general material, and fabrication standards employed by Kencoil in the manufacture of D/C armature coils operating at normal voltage ratings.

### STANDARDS

**2.00** All coils manufactured under these specifications are done so in accordance with the latest published IEEE and NEMA Standards unless otherwise specified.

### MATERIALS

**3.00** All materials are compatible during their manufacture and unless otherwise specified will be compatible with standard materials used in the industry. Materials meet or exceed class "H" temperature ratings.

**4.00** Conductors used are high conductivity 100% virgin copper.

**5.00** Conductor strand insulation shall be heavy or quad amideinide film covered wire or a heavy or quad amide-imide film served with a fused single or double glass over film wire. Other supplemental turn insulation shall be used if required.

**5.01** Strand insulation choice is determined from any of the following factors:

- A. Available slot space
- B. Machine application

**6.00** The end turn insulation shall consist of a .0075 thick mica material or armor tape or a combination of both where applicable.

**7.00** The ground wall insulation shall be slot paper, tape or cell wrapper insulation or any combination.

**8.00** The outer protective armor tape consists of one serving of .005 fibreglasses, .75" wide.

### CONSTRUCTION

**9.00** The straps or hairpin have the lead insulation wiped clean to bare copper, spread or bent to proper shape, and checked for uniformity prior to receiving any insulation.

**10.00** Leads are sleeved and/or taped. The prescribed servings of mica tape/s are applied by machine. A single continuous sheet of mica material is wrapped around the full straight length of the slot sections where applicable.

**11.00** A final armor tape is machine applied. The coils are totally submerged in varnish, lead end up, to a point just covering the insulation. Coils are fully baked in the oven to assure thorough drying of the varnish, yet maintain a degree of flexibility for ease of insertion.

### TESTING

**12.00** Prior to shipment all coils must pass 110 volts A.C.

### GUARANTEE

**13.00** Kencoil, Inc. guarantees its manufactured products to be free of defective materials and workmanship. It further guarantees the coils will pass the standard hi-pot and surge tests after complete insertion and proper connections are made. This guarantee remains in effect for one year from date of our invoice. Exceptions will be taken should the end user, through neglect or abuse, allow the machine to become victim of faulty electrical, mechanical, or environmental circumstances.