



SUBJECT COATING BULBS EXTERNALLY WITH
IRIDESCENT CONDUCTIVE COATING

SUPERSEDED DATE 5/19/48

Initially used to coat lime glass bulb for type 2040.

A LABORATORY PROCESS

- 1. EQUIPMENT
 - Hoskins electric furnace
 - Nichrome bulb holder
 - DeVilbiss spray gun CV Model
 - Well ventilated hood for spraying
 - Ohmmeter with test probes.

MAY 1 1955

- 2. MATERIAL
 - I603 Iridescent coating solution (Nesa "L")
 - M15 Methanol
 - * Masking suspension made as follows:
 - Silica 500 g
 - Bentonite 10 g
 - Water 300 cc

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REGULAR CHANNELS OF STOCK
EXCHANGE DISTRIBUTION.

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HANDLING PRECAUTIONS: See S.N. 33-2-11A. ACCORDINGLY FUTURE REVISIONS
WILL NOT FOLLOW.

3. PROCEDURE

a. It is necessary that certain areas be kept free from the coating, these areas must be coated with the masking suspension before the bulbs are heated. The masking dispersion can be applied by spraying or painting, and after the bulb has cooled following the application of the conductive coating, the masking can be removed by rubbing with either a wet or dry cloth and without injuring the conductive coating. It is currently removed by scrubbing with a brush while holding the bulb in a stream of running water. The bulbs are then rinsed and dried in an electric oven.

b. Heat bulbs in bulb holder for 4-1/2 min. at 580°C in an electric furnace.

c. Remove from furnace and immediately spray with I603 coating under the following conditions:

- Gun press (psi) 30-40
- Nozzle opening adjusted for max. width of spray.
- Gun opening (turns) 2-4
- Distance-Gun to bulb 18-24 in.

Gun is fixed. One burst of spray held for 2-3 sec.

d. Allow sprayed bulbs to cool in air.

e. Measure electrical conductivity of coating using test probes, placed 3/4" apart. Coating must have uniform resistivity with no high resistance spots over 50,000 ohms. If resistivity is over 50,000 ohms, the above procedure may be repeated provided an excess of coating has not been applied. An excess of coating will be evidenced by a hazy film, either white or brown.

** f. Inspect bulbs in an intense, uniform light. Foreign matter in the conductive coating or conductive coating outside the specified area are grounds for rejection.

ENGINEERING SECTION
STANDARDIZING

J, Ga-35/EG