



SUBJECT COATING CERAMIC INSULATORS
 Process Specification

SUPERSEDED DATE 6/3/49

This specification covers the process for spraying ceramic insulators with a roughening insulator coating to reduce surface leakage between tube elements.

SCHEDULE NO. 1

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(Initially for bottom insulator of 715C)

1. EQUIPMENT

- Spraying equipment.
- DeVilbiss spray gun type CV.
- Air cap No. 90
- Fluid tip letter F
- Fluid needle letter F
- Oven 204° C. (400° F.)
- Asbestos gloves
- Furnace 700-800° C.

2. MATERIALS

- C254 Coating Mixture.

3. PROCEDURE

Place supply of ceramic insulators to be sprayed, on nickel tray and put into oven operating at 204° C. (400° F.). Heat for 20 minutes. Load spray bars with ceramic insulators and heat loaded spray bars in oven for 2min. Handling of spacers to be done with clean cotton gloves. Adjust spray gun to * 40 lbs. pressure and set nozzle at 0. Set needle so that 4 screw threads are visible. Spray 4 passes on each side at a distance of 10 to 12 inches with metronome speed of 42. Spray "head-on" with gun made centerline perpendicular to the flat surface of the spacers. After first coating, place in oven and heat for 2 minutes. Spray second coat the same as the first coat. Again place in oven and heat for 2 minutes. Spray on third coat same as first two coats. Remove sprayed assemblies from spray bar and place on sprayed nickel tray in oven. Place tray in air furnace that is at 100° C. or less. Take to temperature of 700-800° C. and shut off furnace. Let furnace cool to room temperature and remove tray.

Notes:

1. When spraying ceramics it is very important that ceramic insulator be up to temperature before coating is applied. The desired effect is that spray will immediately dry as it hits ceramic.
2. Make sure spraying gun is perpendicular to ceramic both in horizontal and vertical plane.



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SCHEDULE NO. 2

(Initially for top and bottom insulators
 of 836 and 1616.)

1. EQUIPMENT & MATERIALS Same as Schedule No. 1.

2. PROCEDURE

- a: Place 100 ceramics in aluminum tray provided. (Two rows.)
- b. Place in oven for 20 min. at 204°C.
- c. Remove from oven and spray 4 passes over entire tray, covering all ceramics with each pass. Spray gun pressure shall be 40 lbs. with nozzle set at 0. Needle valve shall be set so that 4 screw threads are visible. Spraying shall be done at a distance of 10-12 inches with metronome speed at 42. Spray "head-on" with gun centerline perpendicular to the flat surface of the ceramics.
- d. Return tray to oven for 2 minutes.
- e. Repeat Steps c and d for second and third coats.
- f. Place cover on tray and invert.
- g. Remove cover and repeat Steps b - e for coating other side with three coats.
- h. Immediately after third coat is dry on second side, place ceramics on nickel plate and insert into an air furnace that is at 100°C. or less and gradually raise temperature to 700-800°C. When this temperature is reached, shut off furnace and allow to cool to room temperature. Do not open furnace door until temperature is 200°C. or less.
- i. Remove ceramics.

Notes:

- (1) Ceramics shall be handled only with clean, cotton gloves.
- (2) When spraying ceramics it is very important that ceramic insulator be up to temperature before coating is applied. The desired effect is that spray will immediately dry as it hits ceramic.
- (3) Make sure spraying gun is perpendicular to ceramic both in horizontal and vertical plane.

SCALE—

DIMENSIONS IN

UNLESS OTHERWISE SHOWN.

DIMENSIONS SHOWN WITHOUT TOLERANCES ARE DESIGN CENTERS

8-5010-16-60

PCL13689, L13645-121JR

* CHANGE
 ** ADDITION
 *** DELETION

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