



SUBJECT SETTLING P4 FLUORESCENT SCREENS
Process Specification

SUPERSEDED DATE 9/9/49

(Development Shop)

SCHEDULE NO. 5 (P4-05 SCREENS)
(Initially for Types C73164 and C73177
at a density of 8 mg./sq.cm.)

1. MATERIALS

- Z617 Zinc Sulfide Suspension (Z614 Phosphor).
- Z12 Zinc Beryllium Orthosilicate Suspension (Z5A Phosphor).
- C629 Calcium Magnesium Silicate Suspension (C628 Phosphor).
- *P69B Potassium Sulfate Solution, 1N
- *P29C Potassium Silicate Solution, 10%.
- *W7K Distilled Water.

2. PROCEDURE

a. Add cushion layer to bulb.

- 180 cc. 1N potassium sulfate solution
- 460 cc. Distilled water.

b. Add first layer, single component settling suspension.

- 10.2 cc. Zinc sulfide suspension at 41.2 mg./cc.
- 150 cc. 10% potassium silicate solution.
- 350 cc. Distilled water.

Settle for 3 hr. minimum, pour off clear solution (pouring time 10 min.), air dry 5 min. with room temperature air, and bake 15 min. at 350°C.

c. Add cushion layer as in Step a.

d. Add second layer, double component settling suspension.

- 51.2 cc. Zinc beryllium orthosilicate suspension at 20 mg./cc.
- 35.5 cc. Calcium magnesium silicate suspension at 10 mg./cc.
- 150 cc. 10% potassium silicate solution.
- 350 cc. Distilled water.

Settle, pour off, etc., as in Step b.

Note: Cushion layers and settling suspensions shall be 1-2°C. below room temperature when added to bulb.

ENGINEERING SECTION
STANDARDIZING

★ CHANGE
★★ ADDITION
★★★ DELETION