



RADIO CORPORATION OF AMERICA

RCA VICTOR DIVISION 2b

TUBE DEPT. STANDARDIZING

LANCASTER, PA.

MOLDING & SINTERING MATRIX CATHODES

SUBJECT: Process Specifications

DATE Jan. 17, 1955 PAGE 1

STANDARDIZING NOTICE 34-14-72C

MAY

1955

SUPERSEDED DATE Dec. 6, 1951

Initially for A2504

- 1. EQUIPMENT
  - a. Molding jig.
  - b. 125 mg. scoop.
  - c. Camels hair brush. No. 2 Osborne.
  - d. Hydrogen furnace 1150°C.
  - e. Rayon gloves.
  - f. Small steel mallet.
  
- 2. MATERIALS
  - Cathode
  - N101P2 Nickel Powder
 } As specified in tube construction data.
  
- 3. PROCEDURE
  - a. Insert cathode in jig making sure cathode is seated in lip at bottom of jig.
  - b. Holding cathode centered with fingers pour nickel powder around cathode using scoop.
  - c. Holding cathode centered, tap jig 50 times with mallet.
  - d. Brush off any excess powder or if there is a deficiency of powder, pour more powder around cathode using scoop and repeat tapping and brushing operations. Nickel powder should be level with top edge of sintering jig before firing.
  - e. Fire cathode and jig in hydrogen for\*60 minutes at\*1200°C.
  - f. Remove cathode from jig by gently pushing it from under side while lifting it from jig. Be careful not to distort thin wall area.
  - \*\* g. Fire sintered cathode at 1200°C for 30 minutes in line hydrogen.
  - \* h. Always wear a glove when touching cathode and then never touch nickel matrix.

ENGINEERING SECTION  
STANDARDIZING

SCALE—

DIMENSIONS IN

UNLESS OTHERWISE SHOWN.

DIMENSIONS SHOWN WITHOUT TOLERANCES ARE DESIGN CENTERS

12-551-11-64

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\* CHANGE  
\*\* ADDITION  
\*\*\* DELETION

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