

## SECTION 16195 – “ELECTRICAL IDENTIFICATION”

- 1.0 Adhesive Marking Labels for Raceway: Pre-printed, flexible, self-adhesive labels with legend indicating voltage and service identifying Emergency Power and Fire Alarm conduits.
  - A. Label Size: As follows:
    1. Raceways 1-inch and Smaller: 1-1/8 inches high by 4 inches long.
    2. Raceways Larger than 1-inch: 1-1/8 inches high by 8 inches long.
  - B. Color: Black legend on orange background.
- 2.0 Wire/Cable Designation Tape Markers: Where multiple branch circuits are present in the same splice or pull boxes, panelboards, switchboards, or other points of access, identify with tape markers using Vinyl or vinyl-cloth, self-adhesive, wraparound, cable/conductor markers with preprinted numbers and letters. Such identification shall include circuit number, gauge of conductor and either destination (at source locations) or source (at destination and intermediate locations).
- 3.0 Plasticized Card Stock Tags: For high voltage and 480 volt feeder cables, provide phenolic tags with machine printed legend to suit the application. Provide orange background, except as otherwise indicated and eyelet for fastening. Tags shall identify circuit number, conductor gauge, and destination (at source location) or source (at destination and intermediate locations).
- 4.0 Nameplates: Engraved three-layer laminated plastic, black letters on white background. Embossed tape will not be permitted for any application. Provide nameplates with equipment name and drawing schedule identification for all electrical equipment including panelboards, cabinets, switchgear, switchboards, starters, and fire alarm devices. Devices serving a dedicated load shall be identified in a similar manner. Identify the incoming breakers or switches on high voltage switchgear and fused switch lineups with the sound circuit identification number and their location. A schedule or drawing shall identify proposed nameplates and be approved by the University (to be compatible with the MIMS system).
- 5.0 Fasteners for Plastic Laminate and Metal nameplates: Provide self tapping stainless steel screws or No. 10/32 minimum stainless steel machine screws with nuts, and flat and lock washers. Glue-on nameplates are not permitted.
- 6.0 Cable Ties: Provide fungus-inert, self-extinguishing, one piece, self locking nylon cable ties 0.18 inch minimum width. Fifty (50) pounds minimum tensile strength and suitable for a temperature range from -50 degrees F. to plus 350 degrees F. Provide ties in specified colors when used for color coding.

- 7.0 Underground Warning Tape: Provide 4 inch wide plastic tape, detectable type, colored red with suitable warning legend (located 12 inches below grade) above all underground conduits and ductbanks.
- 8.0 All receptacle cover plates, including laboratory multi-outlet raceway receptacles, shall be identified as to panel and circuit number; this information shall be identified by means of a printed label. Label shall be translucent or clear polyester, waterproof, and scratchproof.
- 9.0 Control wiring shall be identified and tagged at all terminals with plastic stick-on labels to correspond with identifications as shown on Vendor's Drawings.
- 10.0 Arc Flash and Shock Warning Signs:
- A. Provide nameplate type markings on all switchgear, switchboards, panelboards, motor control centers, starters, VFDs, and control panels per NEC Article 110 indicating the following:
1. Voltage (phase to phase)
  2. Available Short Circuit Current (amperes)
  3. Flash Protection Boundary (inches)
  4. Prohibited Shock Approach Boundary (inches)
  5. Limited Shock Approach Boundary (inches)

END OF SECTION