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Copper Ground Rod

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Related/Referenced Documents

Include the applicable document, section, or reference "[add link here](#)".

Version History

Version	Date	Revision
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1. General

- 1.1. This is a general specification that covers the minimum requirements for the copper ground rod to be used in the transmission system in Puerto Rico.
- 1.2. Further information will be provided by LUMA Energy at the time of order placement and will provide information on site specific conditions, quantity, and other requirements. This document includes the general electrical and mechanical characteristics of the material.

2. Material Properties

- 2.1. 99.9% pure electrolytic copper coating.
- 2.2. Rods have a high carbon steel core and tip that provide superior strength when driving.
- 2.3. Minimum copper coating of 10 mils on rods listed to UL® 467.

3. Specific Requirements

- 3.1. Samples shall be furnished as requested by LUMA Energy. Vendors that have supplied this material to LUMA on previous orders will not have to furnish samples at bid opening.
- 3.2. The material will be received at the LUMA’s general warehouse (011) at Palo Seco, Puerto Rico. Shipping will include transportation and Luma personnel will handle offloading upon arrival.

4. Basic Use

- 4.1. For transmission line grounding system.

5. Markings

- 5.1. Containers shall be marked outside with LUMA Energy’s purchase order, item number, name and size, net and gross weight, manufacturer’s name, and lot number.
- 5.2. Rod shall be permanently stamped with length of rod near its top and copper sheath thickness along its length.
- 5.3. Labels and tags shall be waterproof.

6. Description

- 6.1. Table 1: Ground Rod Dimensions

Warehouse Number	Asset Suite	Diameter Inches (cm)	Length Feet (cm)	Suggested model number
002-02465	55635	5/8 (1.588)	8 ft (2.43)	C615880

- 6.2. The copper bonded rod shall be manufactured by the electro-forming process.
- 6.3. The steel point shall be conical permitting easy driving into the ground without distorting.
- 6.4. The top end shall be chamfered to avoid mushrooming while driving.
- 6.5. Ground rod clamp shall not be included with the rod.

7. Acceptance Criteria (example)

- 7.1. Test required: certified by external laboratories.
- 7.2. Latest applicable codes, standards, and other regulations: IEC® EN 62561-2, ANSI/NEMA (GR1)

8. Equal or approved equal to:

- 8.1. Hubbell, see Table 1 for catalog number.

9. Packaging

- 9.1. All material and equipment shall be packaged and marked in such a way as to facilitate handling and protection from damage and that the receiving warehouse can readily identify it and send it, in one complete unit, to a field location without opening crates or boxes to sort items and/or parts.

10. Inspection

- 10.1. The acceptance of any material or equipment shall in no way relieve the vendor from his responsibility to meet all the requirements of this specification, and it would not prevent subsequent rejection if such materials were found later to be defective.











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