

RAW MATERIAL SPECIFICATION FOR COPPER RODS

1. Scope

This specification covers the requirement of copper wire rods to be used for cables manufacture. (To min. drawing diameter 0.10 mm)

2. Quality requirement

The wire rods shall be smooth and round. The surface shall not have any flows, scratches, twists seams, scales and splits. It shall have no cavity and blow holes. There shall be no joint in the coil.

3. Material

The material shall be continuous cast copper

The material shall be from electrical conductor grade containing min. 99.90% copper including silver

Impurities of all metal shall not exceed 0.1 %

The copper should confirm to IEC -28 and ASTM B 49/90 standard, high conductivity annealed and as the following table :

Sr. No.	Parameter	Test method	requirement
1	Grade	ASTM B 49/90	ETP or OFE
2	Diameter	Micrometer	8 mm \pm 0.38 mm
3	Ovality	Micrometer	0.32 mm max.
4	Tensile strength min.		20 kgf / mm ²
5	Elongation min.	ASTM B 49/90	38 %.
6	Resistivity @ 20 °C	IEC-28 ; IEC 228	0.017241 Ω mm ² /m max.

4. Packing

The copper wire rod shall be supplied in coils **2.5 to 3.5** tons in one length put on wooden pallet, secured by eight hoops and shall be covered with polyethylene sheets for easy handling and storage.

Each coil to have a metal tag indicating:

- Net and gross weight
- Wire diameter
- Serial number of coil
- Manufacture and packing dates

5. Test certificate

The supplier shall submit test results of each shipment indicating:

- Elongation
- Tensile strength
- Conductivity

6. Criteria of acceptance/ rejection

The material shall be subjected to inspection and the tests shall be carried out for acceptance/ rejection on part or whole lot.

7. Sample

50 kg of copper wire rods to reach our company before closing dates by express delivery for test on our production lines and in the lab.

Sample shall be the basis for accepting or rejecting the offer.