

TECHNICAL SPECIFICATION FOR G.I. WIRES 10 SWG (3.15 MM)

This specification covers manufacture, supply and delivery of galvanized solid steel wire for use in power distribution system.

The G.I. wires shall comply with the latest edition of IS: 280 and IS: 7887 for solid wire. These wires shall be drawn from mild rods conforming to latest version of IS: 7887. The general requirements relating to G. I. wire shall be laid down in latest version of IS: 1387. The wires shall be round, free from splits, surface flaws etc.

The diameter of G.I. wire shall be 3.15 mm with tolerance of $\pm 2.5\%$ (applicable only to the coils of wire) and tensile strength of 32-55 kgf/mm². The wire shall be galvanized with heavy coating as per IS: 4826. Maximum difference between two readings taken on any two diameters on Cross section should not exceed 2.5%.

The wire shall be drawn from steel made by the open hearth process, oxygen or electric furnace process of such quality that when drawn to the size of wire specified & coated with zinc, the finished wire shall be of uniform quality and shall have the characteristics specified in latest version of IS: 4826. The sulphur and phosphorus contents should not exceed 0.060 percent each. The heavy coating of shall be used in galvanization as per IS 4826.

These wires should be packed in coils of 50-70 kg. The coil shall have metallic tag fixed firmly on the inner part of the coil bearing name of manufacturer & Trade mark, Lot No., Size, length etc.

1. Tests:

The following tests shall be carried out in accordance with latest version of IS: 280, as per complying criteria stipulated therein.

- (i) Dimensional Check (diameter)
- (ii) Visual inspection regarding freedom from defects.
- (iii) Tensile test.
- (iv) Zinc coating test.
- (v) Chemical Composition.
- (vi) Bend Test/ Wrapping test.

2. **Weight of Coil Reel:**

The GI wire shall be supplied in 50-70 Kgs. coils.

3. **Marking:**

Each coil shall provided with a metallic tag fixed firmly on the inner part of the coil bearing the following information:

- a. Manufacturer's name of trade mark.
- b. Lot number and coil Number.
- c. Size
- d. Construction
- e. Tensile designation/ grade (Annealed or Hard)
- f. Coating
- g. Length
- h. Weight
- i. ISI certification mark, If any
- j. Identification mark, (property of PVVNL)

4. **Packing:**

GI wire shall be supplied in bare coils. Each coil of wire shall suitably be bound and fastened compactly for safe rail/ road transport.

5. **Prices:**

The price shall be **Firm** .

6. **Guarantee Technical Particulars:**

Guarantee Technical Particulars shall be as enclosed.