

# इंटरनेट

# मानक

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“जानने का अधिकार, जीने का अधिकार”

Mazdoor Kisan Shakti Sangathan

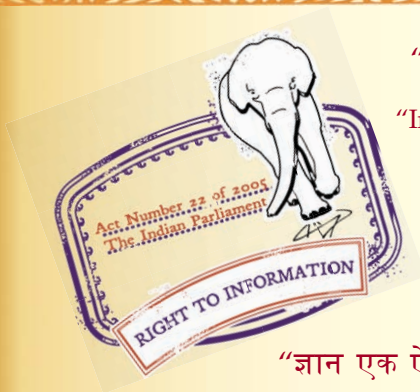
“The Right to Information, The Right to Live”

“पुराने को छोड़ नये के तरफ”

Jawaharlal Nehru

“Step Out From the Old to the New”

IS 10810-38 (1984): Methods of test for cables, Part 38: Torsion test on galvanized steel wires for armouring [ETD 9: Power Cables]



“ज्ञान से एक नये भारत का निर्माण”

Satyanarayan Gangaram Pitroda

“Invent a New India Using Knowledge”



“ज्ञान एक ऐसा खजाना है जो कभी चुराया नहीं जा सकता है”

Bhartrhari—Nitiśatakam

“Knowledge is such a treasure which cannot be stolen”



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*Indian Standard*

## METHODS OF TEST FOR CABLES

PART 38 TORSION TEST ON GALVANIZED STEEL  
WIRES FOR ARMOURING

**1. Scope** — Covers method for torsion test on galvanized steel wires for armouring of electric cables.

**2. Significance** — During the armouring process and subsequently during laying of the cables, the armour wires are subjected to torsional stresses. This test evaluates the torsion resistance of the wires.

**3. Terminology** — See IS : 3975-1979 ' Specification for mild steel wires, strips and tapes for armouring of cables ( first revision ) '.

**4. Apparatus** — Consists of two vices, one of which shall be fixed but capable of sliding forward as the wire is twisted to prevent formation of longitudinal stresses and the other capable of rotating. The fixed vice shall also be capable of longitudinal movement for adjusting gauge lengths.

**5. Material** — No material other than the test specimen is required for performing this test.

**6. Test Specimen**

**6.1** The test specimen shall be a piece of wire 300 mm long cut from the outer end of the coil after discarding a minimum length of 300 mm. It shall be free from scratches, dents and other external irregularities or damage.

**6.2 Number of Specimens** — One.

**7. Conditioning** — No conditioning of test specimen is required.

**8. Procedure**

**8.1** The test specimen shall be cleaned to remove extraneous coatings, if any, without damaging the test specimen.

**8.2** The test specimen shall be fixed in the two vices of the torsion testing machine. The gauge length between the vices shall be as specified in the individual specification.

**8.3** The test specimen shall be twisted by rotating the revolving grip at a reasonably constant rate not exceeding 70 turns per minute.

**8.4** The number of turns at which the wire breaks or splits shall be noted.

**9. Tabulation of Observations**

| Sample<br>No. | Diameter of Wire<br>mm | Gauge Length<br>mm | No. of Turns (N) at which<br>Wire Breaks or Splits |
|---------------|------------------------|--------------------|----------------------------------------------------|
|               |                        |                    |                                                    |
|               |                        |                    |                                                    |
|               |                        |                    |                                                    |
|               |                        |                    |                                                    |
|               |                        |                    |                                                    |
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Adopted 14 March 1984

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**IS : 10810 ( Part 38 ) - 1984**

**10. Calculation** — Number of turns withstood without break or split =  $N - 1$ .

**11. Report**

**11.1 Torsion Test of Galvanized Steel Wires for Armouring**

Coil No./Lot No.

Nominal Diameter of Wire : mm

**11.2 Results**

Reference specification \_\_\_\_\_

| <i>Gauge Length</i> | <i>No. of Turns Without Break or Split</i> |                  |
|---------------------|--------------------------------------------|------------------|
|                     | <i>Observed</i>                            | <i>Specified</i> |

**11.3 Conclusion** — Specimen meets/does not meet the requirements of the specification.