

SECTION-I
(G.I.PLAIN WIRE)
TECHNICAL SPECIFICATION FOR G. I. WIRE

1. SCOPE :-

This Specification provides for manufacture, testing before dispatch at manufacturer's work and supply and delivery of 3.15mm and 4mm solid heavily coated Galvanized solid steel wire to any of our Regional Stores in Gujarat State as intimated by the PGVCL time to time.

2. STANDARD :-

The G. I. wires shall comply with the following Indian standards (subject in all cases to latest revision/amendments currently in force)

a)	IS : 280/1978 (IIIrd revision).	Specification for Mild Steel Wire for general engineering purpose.
b)	IS : 4826/1979 (Ist revision).	"Specification for Hot Dipped Galvanized coating on round steel wires."
c)	IS : 1867/1967 (Ist revision).	'General requirements for the supply to metallurgical materials.'
d)	IS : 7887/1992	Specification for Mild Steel Wire Rods for general engineering purpose.
e)	IS : 1521/1972 (Ist revision)	'Method for tensile testing of steel wires.
f)	IS : 1755/1983	'Method for wrapping test of wire'.
g)	IS : 2633/1986 (Ist revision)	'Methods for testing uniformity of coating on zinc coated articles'.
h)	IS : 6745/1972	'Methods of determination of weight of zinc coating on zinc coated iron and steel articles'.
i)	IS : 209/1992 (IVth revision)	'Specification for zinc.'
j)	IS : 2629/1985	'Recommended practice for hot dip galvanising of steel and iron'.

3. MATERIAL :-

General requirement relating to the supply of Mild Steel Wire shall be as per IS:1387/1967. The wire shall be drawn from the Wire rods confirming to IS: 7887/1992. The wire shall be sound-free from splits, surface flares rough, jagged and imperfect edges and other harmful surface defect.

Signature of Tenderer:		Company's Round Seal:
Date:	Place:	

4. **SIZES** :- (a) 3.15 mm dia.
(b) 4.00 mm dia.

5. **QUALITY** :-

Both the sizes of G. I. wires shall be of soft drawn quality confirming to IS: 280/1978.

6. **TENSILE STRENGTH** .:

The tensile strength of the G. I. wire when tested in accordance with IS : 1821/1972 shall be between 450.550N/mm².

7. **ZINC COATING** :-

The wire shall be galvanized in accordance with IS:2629/1986 and the zinc to be used for Hot dip galvanizing shall confirm to grade Zn-98, specified in IS:209/1992. The coating shall be uniform, smooth and free from visual defect.

Such as flash and dress inclusion bare patches black spots, pimples, lumpiness, rust strains, bulky white deposit and bistro. The coating shall be "HEAVELY COATED QUALITY".

8. **TESTS** :-

The following acceptance tests shall be carried out on each and every lot at manufacturers premises at the manufacturer's cost. The manufacturer must be fully equipped to carry out the tests at his premises in presence of PGVCL's Inspectors.

- a) Visual examination.
- b) Checking of diameters of wires.
- c) Tensile Strength. As per relevant ISS specified
- d) Wrapping test. para -2 hereof.
- e) Mass of zinc coating.
- f) Uniformity of zinc coating.
- g) Adhesion of zinc coating.

The manufacturer shall have to submit Test Certificates with every lot for the Chemical composition of the Steel rocs from which the wires are drawn.

9) **SAMPLES** :

The sampling for Acceptance Test shall be carried out as per Appendix -'A' of IS : 280/1978 (Third revision)

Signature of Tenderer:		
Date:	Place:	
		Company's Round Seal:

10. PACKING :-

The G. I. Wire shall be supplied in coils. The weight of the coil shall be 50 Kg. to 80 Kg. Each coil shall be wrapped in hession to avoid surface damage to the wire during transport and for protection against pollution. Each coil shall be supplied with a metallic tag on which the following particulars shall be printed itched with waterproof ink/itched.

- (1) Name of Manufacturer.
- (2) Size of Wire.
- (3) Weight of Coil (approx.) Kg.
- (4) Coil Serial No.
- (5) A/T No. & Date, .
- (6) ISI Mark if any.
- (7) Property of PGVCL.

11. SEALING :

The manufacturer shall keep coils ready with seal wire and lead seal so as to enable the PGVCL's inspectors to seal the inspected material immediately. Wrapping of coils with hession shall be done after inspection but before dispatch.

12. GUARANTEED TECHNICAL PARTICULARS. :-

The tenderers shall submit the Guaranteed Technical Particulars as per the proforma SECTION-II attached herewith only. The offers without technical particulars shall be ignored.

13. DEVIATION FROM SPECIFICATION :-

No deviation in the above specification shall be allowed.

Signature of Tenderer:		Company's Round Seal:
Date:	Place:	

**SECTION-II
(G.I. PLAIN WIRE)**

**Name of Manufacturer :
& Address.**

GUARANTEED TECHNICAL PARTICULARS.

Technical information and guaranteed Technical Particulars for supply of G. I. Wire size 3.15mm dia and 4.00 mm dia.

PART -A

BIDDER HAS TO CONFIRM FOLLOWING IMPORTANT REQUIREMENT :

Sr. No.	Particulars.	Confirmation
1)	The G I. Wire of 3.15mm dia x 4.00mm dia with tolerance of +or- 2.5 % in dia as per IS:280/1978 with latest amendment/revision if any.	Yes
2)	The G. I. Wire shall drawn from soft wire having tensile strength 450-550 N/mm ²	Yes
3)	Breaking Load shall be as under : for G. I. Wire 3.15mm dia x 339.3 to 459.2 for G. I. Wire 4.00 mm dia 544 to 740.54	Yes Yes
4)	Zinc coating shall be as under i) Heavy coating IS : 4826/78 ii) How dip galvanizing, weight of zinc coating when tested IS : 4826/79 iii) The quality of zinc shall be as per IS : 209/1992 iv) No. of dip guaranteed. 3 Nos. of 1 minute dips & 1 No. 1/2 minute dip as per IS:2633/1986	Yes Yes Yes Yes Yes
5)	Weight of coils shall be from 50 Kg. to 80 Kg.	Yes
6)	Packing condition as per clause No. 10 of Tender specification.	Yes

Signature of Tenderer:		Company's Round Seal:
Date:	Place:	

PART - B (ENCLOSERS)

BIDDER HAS TO ENCLOSE FOLLOWING DOCUMENTS AND HAS TO CONFIRM FOR THE SAME:

Sr. No.	Particulars.	Confirmation
1)	List of Plant and Machinery.	Yes
2)	List of Testing Equipments.	Yes
3)	List of Orders pending / executed at least for past two years for the item offered: (A) With GUVNL. (B) With the purchase other than GUVNL.	Yes Yes.

PART - C

BIDDER HAS TO MENTION BELOW DEVIATION IF ANY, QUATING RELEVANT CLAUSE OF SPECIFICATION.

Signature of Tenderer:		Company's Round Seal:
Date:	Place:	