



Technical specification for Heat Resistant PVC cable for Gravimetric feeder control system.

Specn. No: GF 140  
Date : 02.06.90

SHEET 1 OF 2

I. Technical Requirements:

1. Applicable standards : IS 1554 part-I/latest  
IS 694/latest  
IS 5831/latest  
IS 8130/latest  
IS 10810-part 53/1984
2. Application : For interconnection between feeder mounted components and feeder Integral cabinet.
3. Type : Single core, multistrands
4. Conductor Material : Annealed tinned copper.
5. Conductor size and colour : 12 AWG, 7 strands - Grey  
12 AWG, 19 strands - Green  
14 AWG, 7 strands - Grey  
14 AWG, 41 strands - Yellow
6. Insulation Material : Heat resistant PVC Type 'C' as per IS 5831/latest with flame retardant property as per IS 10810 part 53 - 1984.
7. operating temperature:  $-20^{\circ}\text{C}$  to  $80^{\circ}\text{C}$
8. voltage gradient : 660V/1100V
9. Conductor resistance : as per IS 8130/latest
10. Installation : Switch box wiring (laid in metallic flexible conduits).
11. Marking : Cable- shall be marked with manufacturer's name, voltage grade conductor size, withstanding temp in  $^{\circ}\text{C}$  for the insulation and insulation details at intervals not exceeding 300 mm.
12. Flame retardant property required : The finished cable shall pass through flammability test as per IS 10810-part 53/ 1984.

II. General Requirements:

1. Vendor shall furnish technical datas for the above cable for BHEL approval.
2. Packing : a) In drums of 500 metres  $\pm$  5%  
b) Non standard length: Minimum length of cable as non-standard length shall be 125 metres but it shall not exceed 5% of total length ordered for each size of cable.

III. Inspection and Testing requirements:A. Routine Tests:

1. Conductor resistance as per IS 8130/BS 6360.
2. Constructional and dimensional check as per specification.
3. Insulation resistance
4. H.V.test

B. Type Test:

1. Percentage elongation of conductor.
2. Copper sulphate test for tinning.
3. Conductor resistance
4. Constructional and dimensional check.
5. Tensile strength and % elongation for insulation and other test as per IS 694 and IS 5831/84.
6. Flame retardancy (IEEE 383/IEC 332.1/SS 424175)

C. Acceptance Test:

1. Conductor resistance
2. Constructional and dimensional check.
3. H.V.test.

- IV. 1. Test certificates for Routine and Type tests shall be furnished.
2. vendor shall indicate their pointwise compliance for all the points indicated in this specification.

PREPARED	CHECKED	APPROVED	DATE
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