



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°C to 80°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
P.S.C. SEKAR	V.P.D. RAJAN	S.S. SUNDARAM	02.06.90
<i>P.S.C. Sekar</i>	<i>V.P.D. Rajan</i>	<i>S.S. Sundaram</i>	