

TECHNICAL SPECIFICATION

OF

ELECTRICAL MATERIALS

DEVKON KIT AND HAND GLOVES

“GROUP – F”

Tender Notice No. NESCO Utility / O&M Materials/58 / 8267, dtd.17.7.15

Group-F

Sl no.	Material Description	Unit	Quantity
1	Devcon Kit	No.	5
2	11KV hand glove	Pair	344
3	33KV hand glove	Pair	276

NB: 1. Bidders should put their authorized signature with office seal on each page of the documents.

2. Bidders should put their offer in the Guaranteed particulars column furnished in the tender documents.

3. Purchaser may ask to the bidder who will qualify in Techno- Commercial evaluation of the tenders for submission of Samples for verification , if required.

4. Purchaser reserves the right to increase or decrease the above quantities during placement of purchase order or may cancel any item/items without assigning any reason thereof .

Dy. General Manager (C&P)
NESCO Utility, Balasore, Odisha

TECHNICAL SPECIFICATION OF DEVCON KIT

SCOPE:

This specification covers the design, manufacture, testing packing before dispatch, supply and delivery of the kits at NESCO Utility Stores.

It is special quality of kit that to use for power Transformers / Distribution Transformers to arrest oil leakage during working condition.

TECHNICAL SPECIFICATION OF INSULATED RUBBER HAND GLOVES

1.0 SCOPE:

This specification covers the design, manufacture, testing at manufacturer's works before dispatch, supply and delivery of Insulated Rubber Hand Gloves at NESCO Utility Stores.

This specification covers rubber insulated hand gloves used for protection of electrical workers from electric shock. These gloves are intended for working on "Live" low and medium voltage lines and equipments. These are also used for the operation of 11KV & 33 KV AB Switch operating handles etc. as a precaution.

2.0 STANDARDS FOR MATERIAL:

- i. Insulated Rubber Hand Gloves shall be manufactured and tested up to 17000 Volts & Working potential up to 7500 Volts in accordance with the relevant standard.
- ii. Insulated Rubber Hand Gloves of superior quality are required for use in Rural / Urban areas of NESCO Utility for protection of serviceman and lineman from electric shock while working on energized lines and equipments.
- iii. Rubber hand gloves shall be of soft quality, seamless latex, flexible, shock proof and manufactured & tested in accordance with type two of IS: 4770 / 1991 with latest amendment are required.
- iv. Hand gloves shall be made from natural or synthetic rubber by dipping process.
- v. There should be no joints in the gloves.
- vi. Hand Gloves shall have a smooth surface and both inner & outer surfaces shall be free from visual defects like patches, blisters, porosity, embedded, foreign matter or other physical defects.
- vii. The hand gloves shall be of Cream colour only.
- viii. The hand gloves shall be of gauntlet type and cuff edges shall be finished with a roll or rubber re-enforcing strip.
- ix. The hand gloves shall be of curve finger type.

3.0 ELECTRICAL PROPERTIES:

- 3.1 The gloves shall be of 'Type 1 & Type 3 (IS:4770) conforming the following characteristics:
- i) Maximum working Potential (rms) – 7500 V

- ii) Test potential (rms) – 17000V
 - iii) Leakage current (rms) at working voltage Micro Amp.(Max.)-4000
 - iv) Max. Leakage current (rms) at Test potential – 14mA
- 3.2 The maximum breakdown voltage of the gloves shall be 6,000 V for type 1 & 20,000V for type 3.

4.0 DIMENSIONS:

- 4.1 The gloves shall be of gauntlet type and the minimum internal length from the tip of the second finger to the edge of the cuff shall be 400 mm.
- 4.2 The maximum and minimum thickness of the gloves & size shall be in accordance with the provisions of Indian Standard.

5.0 PHYSICAL PROPERTIES :

The allowable value of ‘ Tensile strength’ , ‘Elongation at break’, ‘Tension set ‘and ‘Ageing properties’ shall be as stipulated in the Indian Standard.

6.0 MARKING:

Each Insulated Rubber Hand Gloves shall be marked with the following:-

- i. Size & type of gloves.
- ii. Maximum working potential followed by word “Working” in bracket.
- iii. Manufacturer’s name or recognized trade mark, if any.
- iv. Month & Year of manufacture.
- vi. N E S C O Utility .
- vii. Confirming to ISS: 4770 / 1991.

Each hand glove shall be tested as per routine test of IS: 4770 (Latest amended) and mark “TESTED” shall be marked. The marking should be at the backside of the glove, shall be legible and permanent and shall not impair the quality of gloves.

7.0 PACKING:

The packing should be able to withstand rough handling during transit of material at various destinations. Each pair of hand gloves shall be suitably and properly packed in polythene bags. Any other mode of packing superior to above as per manufacturer’s standard practice may also be agreed too. 100 – 150 pairs of hand gloves shall be packed in one wooden box / container or as per manufacturer’s standard practice

8.0 GUARANTEED TECHNICAL PARTICULARS:

The tenderer shall furnish complete Guaranteed and other Technical Particulars of material offered by him as per Schedule- V.

9.0 SAMPLES:

The bidder shall deposit 1 No. sample of tendered item, along with dimensional drawing indicating all dimensions and weight along with Bid. The sample shall be checked thereafter for visual examination and checking / verification of dimensions, weight etc. as per specification / GTP / Drawing.

10.0 TYPE TEST CERTIFICATES:

Along with tender necessary type test certificates (not older than three years from date of opening of tender) from any CPRI/ERDA/NABL accredited test lab is required for offered material.

**33KV & 11KV Hand Gloves:
Guaranteed Technical Particulars of 33 Kv & 11 Kv Hand Gloves**

Sl. No.	Description	Guaranteed Value
1	Max Working Potential (RMS)	Type 1-650 V Type3-7500 V
2	Test Potential (RMS)	Type 1-5000 V Type3-17000 V
3	Leakage Current (RMS) at working voltage micro amps (Max.)	Type 1-400 V Type3-4000 V
4	Leakage Current (RMS) at test potential	Type 1-4mA Type3-14 mA
5	Minimum Break Down Voltage	Type 1-6000V Type3-20,000 V
6	Dimension (from the tip of second finger to the edge of the cuff)	400mm
7	Max , Min thickness	As per ISS
8	Rubber Hand Gloves for 33 Kv & 11 Kv AB Switch Opeartaing Handles	As per IS 4770-1991