

No. U-II-25/2011-12-Prov-(CoBRA)
 Government of India/भारत सरकार
 Ministry of Home Affairs/गृह मंत्रालय
 Police Modernization Division/पुलिस आधुनिकीकरण प्रभाग
 Prov.I Desk/संभरण-I डेस्क

26, Mansingh Road, Jaisalmer House,
 New Delhi, the 11th February, 2013

DsG : AR/BSF/CISF/CRPF/ITBP/NSG/SSB & BPR&D

Subject : QRs/Specification of 14 various Clothing items.

The QRs/Specification of following 14 items as per annexures have been approved by the Competent authority in MHA:

- i. Socks woollen heavy (Annex. B).
- ii. Hand Gloves Knitted (Annex. C)
- iii. Cotton Terry Towel (Sky Blue Color)/Hand Towel (Annex. D)
- iv. Scoured and bleached rib knitted round neck sleeveless and short sleeve vests/Vest Cotton (Annex. E)
- v. Water Bottle(Annex. F)
- vi. Trouser BD Serge Cloth/Cloth Trouser BD (Annex. G)
- vii. Shirt Angola Cloth./Shirt Angola (Annex. H)
- viii. Cap Comforter Woollen(Annex. I)
- ix. Under Pant Thermal/ Under Pant Woollen (Annex. J)
- x. Vest Thermal/Vest Woollen (Annex. K)
- xi. Coat Parka (Annex. L)
- xii. Beret Cap (Annex. M)
- xiii. Rain Cape(Annex. O)
- xiv. Blanket Air Force Blue (Annex. S)

2. Henceforth, all CAPFs should procure the above items required by them, strictly as per the laid down QRs/Specifications.

widm 5/12
13/2/2013

Yours faithfully,

Tilak Raj
 (Tilak Raj)

Under Secretary to the Govt. of India

O/C

Encl : As above.

Copy to :

1. SO, IT Cell, MHA - with the request to host the above QRs/Specification on the official website of MHA (under the page of Organizational set up, Police Modernization Division) and confirm to this Division. Softcopy is being sent separately.
2. Director(Procurement), MHA

Copy for information to PS to JS(PM).

CENTRAL RESERVE POLICE FORCE STANDARD

SPECIFICATION FOR "HAND GLOVES KNITTED"

Submitted to :

**Office of the Directorate General of Police,
CRPF, Ministry of Home Block No-1, CGO
Complex, Lodhi Road,
New Delhi-03**

Prepared by :

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SPECIFICATION FOR "HAND GLOVES KNITTED"

RECORD OF AMENDMENTS

Amendment No. and Date	Amendment pertains to SI.No./Para No./Column No.	Authority	Amended by Name and Appointment (in block letter)	Signature and Date

PREAMBLE

The Inspector General of Police, CRPF, has asked NITRA to prepare technical specifications for "Hand Gloves Knitted". The specification describes the fabric particulars and properties – courses/inch, wales/inch, mass, yarn count, fibre composition, dimensions, color fastness to light, pH, dimensional change etc.

Bureau of Indian Standards (BIS) test methods are considered to draw the specification.

This report contains 11 pages which describe the technical specifications of "Hand Gloves Knitted" for CRPF.

This technical specification will enable the CRPF to prepare tender documents (technical details) at the time of placing orders for "Hand Gloves Knitted" and final inspection as well.

SPECIFICATION FOR "HAND GLOVES KNITTED"

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0.0 FORWARD

- 0.0 This specification has been prepared by Office of the Directorate General of Police, CRPF on the authority of The Director General of Police, CRPF.
- 0.1 This specification is for use by the CRPF.
- 0.2 This specification would be used for manufacture, quality assurance and procurement of the item.
- 0.3 Quality assurance authority for the item covered in this specification is Office of the Directorate General of Police, CRPF, New Delhi. All enquiries regarding this specification, including those relating to any contractual conditions contained therein shall be addressed to the Quality Assurance authority at the following address:
- Office of the Directorate General of Police,
CRPF, Ministry of Home Block No-1, CGO Complex, Lodhi Road,
New Delhi-03
- 0.4 Copies of the specification can be obtained from:
- Office of the Directorate General of Police,
CRPF, Ministry of Home Block No-1, CGO Complex, Lodhi Road,
New Delhi-03
- 0.5 This specification holds good only for the supply order for which it is issued.
- 0.6 The Quality Assurance Authority reserves the right to amend or modify this specification as and when required.
- 0.7 The Quality Assurance Authority is the competent authority to grant concessions, if any, in respect of any clause contained in this specification.
- 0.8 For the purpose of deciding whether a particular requirement of this specification is complied with, the final value, observed or calculated, expressing the result of a test, shall be rounded off in accordance with IS:2-1960 (Reaffirmed 2006). The number of significant places retained in the rounded off value should be the same as that of the specified value in this specification.

1.0 SCOPE

- 1.1 This specification covers the requirement for "Hand Gloves Knitted" Khaki or any other shade against CRPF requirements.
- 1.2 This specification does not specify general appearance, feel etc of the "Hand Gloves Knitted".

2.0 MATERIAL

The yarn used in the manufacture of the "Hand Gloves Knitted" shall be spun on worsted system from the blend of 80% wool tops (dyed in khakhi shade) and 20% nylon tops (dyed in khakhi shade). Following are the particular of yarn used to manufacture "Hand Gloves Knitted" :

- Fibre composition : 80 % wool and 20% Nylon
(Tolerance $\pm 2\%$)
- Wool Fibre length : 80 mm minimum
- Wool grade : Not less than 58s (IS 5911: 1977)
- Nylon 6 fibre length : 80-120 mm
- Approximate count : 90 tex X 2 (Nm 11/2)
- Single Thread Breaking
Loads : 7.5 N, Minimum

(The Breaking load of yarn shall be determined on a test length of 500 mm using a constant rate of traverse type machine having traverse of 300 ± 15 mm per minute. The breaking load values of yarn removed from the gloves shall not be less than 95 percent of the specified values)

3.0 MANUFACTURE

3.1 The shape, dimensions and design of the "Hand Gloves Knitted" are shown in Fig. 1.

3.2 The "Hand Gloves Knitted" shall be so knitted as to allow the use of the gloves on either hand irrespective of positioning of the thumb. The fingers shall be sewn neatly on the one side of the hand with the same yarn as used in knitting the gloves without leaving any opening at the finger tips. The tail end of the sewing thread shall be knotted securely without forming a big knot or causing tight fitting at the base of fingers. The seams shall be elastic and shall not give way when the knitted fabric is stretched in any direction to the full extent without breaking, or allowing the loops of the fabric to run.

The gloves shall be given shrink-resist treatment preferably at the yarn stage.

3.3 The various portion of gloves shall be knitted as given below:

- Cuffs : 2 X 2 rib-knitted, seamless
- Palm : Plain-knitted, seamless
- Fingers : Plain-Knitted with sewing on one side

4.0 WORKMANSHIP

The "Hand Gloves Knitted" shall be free from manufacturing defects such as large mends, ladders, dropped stitches, noticeable oil or other stains, holes, cuts, sewing defects, badly shaped fingers, chemical damages and dyeing defects such as uneven dyeing and streakiness or any other defect which may significantly mar the appearance or serviceability of the gloves.

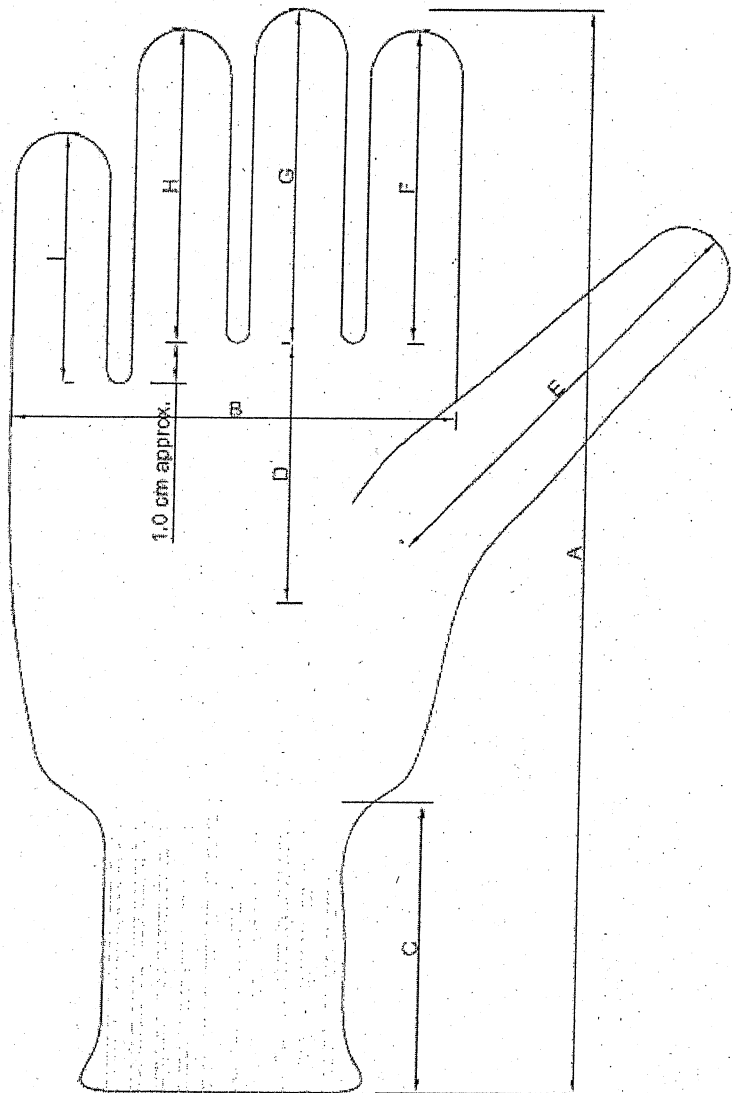


Fig-1: Hand Gloves Knitted

5.0 PAIRING

“Hand Gloves Knitted” shall be matched and paired according to their type, size and shade. A tolerance of ± 1.5 cm on the overall length of the “Hand Gloves Knitted” shall, however be permissible while pairing.

6.0 REQUIREMENTS

- 6.1 The “Hand Gloves Knitted” shall conform to the requirement of Dimensions (Method of test A2 of IS 5450: 1986) and Mass (Method of test A3 of IS 5450: 1986) as per Table-1 read with Fig. 1.
- 6.2 The number of wales (Method of test A4 of IS 5450: 1986) and courses (Method of test A5 of IS 5450: 1986) in the “Hand Gloves Knitted” shall conform to the requirement given in the Table-2.
- 6.3 The “Hand Gloves Knitted” shall conform to the requirements given in Table-3.

Table-1 : Dimensions and mass of “Hand Gloves Knitted”

Size	Overall Length (cm)	Width Across Palm (cm)	Depth of Cuff (cm)	Distance of Thumbs from middle finger (cm)	Length of Thumb (cm)	Length of Index Finger (cm)	Length of Middle finger (cm)	Length of Ring finger (cm)	Length of Little finger (cm)	Mass of 10 pairs (Minimum) (Gram)
	(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)	(I)	
Small	24.0	10.0	6.0	4.5	9.5	6.5	7.0	6.5	5.0	700
Medium	26.0	11.0	7.0	6.25	10.5	7.5	8.0	7.5	6.0	820
Large	28.0	12.0	7.0	6.25	11.5	8.5	9.0	8.5	7.0	950
Tolerance	± 1.5	± 1.0	± 1.0	± 0.5	± 0.5	± 0.5	± 0.5	± 0.5	± 0.5	=

Note: A tolerance of ± 3% is permissible on the mass of the individual pair of Gloves. Calculated from the mass of 10 pairs of Gloves, provided the minimum collective mass is maintained specified above.

Table-2 : Number of Wales and Courses in "Hand Gloves Knitted"

Size (1)	Total number of Wales in the Gloves, dm (2)	Minimum number of Walse in each finger (dm)					Courses per dm (8)
		Thumb (3)	Index Finger (4)	Middle finger (5)	Ring finger (6)	Little finger (7)	
Small	68	22	18	21	18	16	44
Medium	72	23	19	22	19	16	
Large	76	24	21	23	21	18	
Tolerance	± 1.5	± 0.5	± 0.5	± 0.5	± 0.5	± 0.5	± 2

Table-3: Requirements of "Hand Gloves Knitted"

Sl. No.	Parameters	Requirements	Method of Testing
1.	Fibre composition, Percentage -Wool -Nylon	80±2 20±2	IS 667: 1981 and IS 2006: 1988 (Dry mass basis)
2.	Dimensional Change (due to relaxation), %, Maximum	2.5	A-6 of IS:5450: 1986
3.	Dimensional Change (due to felting), %, Maximum	5.0	A-7 of IS:5450: 1986
4.	Colour Fastness to Light	4 or better	IS 2454:1967
5.	Colour fastness to washing -Change in colour -Staining of adjacent fabric	4 or better	IS 687:1977
6.	Colour fastness to Perspiration -Change in colour -Staining of adjacent fabric	4 or better	IS 971:1983
7.	pH Value of aqueous extract	5.0 – 7.5	IS 1390:1983 (Cold method)
8.	Loss in mass, percentage, Maximum	4	IS:2360: 1977

7.0 SAMPLING

The manufacturer should offer the stores serially numbered and arranged in such a way that the entire lot is accessible to the inspecting officer. The conforming of a lot to the requirement of this specification shall be determined on the basis of the tests carried out on the samples selected from it. The number of samples shall be selected at random in accordance with Table-4 given below as per IS 4905 : 1968.

Table-4: Number of "Hand Gloves Knitted" to be selected from a lot and permissible number of non-conforming "Hand Gloves Knitted"

No. of Gloves in the lot	Non – Destructive Testing		Destructive Testing (Chemical Testing)	
	No. of Gloves to be selected	Permissible number of non-conforming Gloves	No. of Gloves to be selected	Permissible number of non-conforming Gloves
(1)	(2)	(3)	(4)	(5)
Up to 300	10	1	2	0
301 – 500	20	1	3	0
501-1000	30	2	5	0
1001 – 3000	50	3	8	0
3001 and above	80	5	13	1

The number of test samples and the criterion for conformity for various characteristics shall be as follows:

Characteristics	Number of test samples	Criteria for conformity
Freedom from defects, Dimensions, Nos. of wales and courses	All the Gloves selected according to the column 2 of table-4	Non-conforming pairs not to exceed the corresponding number given in column 3 of table-4
Mass	All the Gloves selected according to the column 2 of table-4	Each observed value satisfies the relevant requirement
Fibre composition, Dimensional change, pH value, Loss in mass, colour fastness to various agencies except light	All the Gloves selected according to the column 2 of table-4	Non-conforming pairs not to exceed the corresponding number given in column 5 of table-4
Colour fastness to light	One up to 500 pairs and two above that	Each observed value satisfies the specified requirement.

8.0 MARKING

Each pair of "Hand Gloves Knitted" shall be distinctly marked with the following:

- a) Size
- b) Material Composition
- c) Name / Trademark of the manufacturer
- d) Any other information required by the buyer

9.0 PACKAGING

"Hand Gloves Knitted" may be packed by the method given below when specified agreed to between the buyer and the seller.

9.1 Ten pairs of gloves suitable wrapped shall be packed one above other and tied at two places with jute twine or string to form a bundle. The requisite number of bundles shall be wrapped with two layers of kraft paper (see IS: 1397: 1967) followed by third layer of waterproof paper (see IS 3751: 1968) and finally outer layer of cee cloth (see IS 3751: 1966) or equivalent hessian cloth to form a bale weighing approximately 35 kg. The bales suitably stitched shall be made secure by fastening with steel stripe (or hoops) or cordages of sufficient strength.

Note: One layer of kraft paper and one layer of waterproof paper may be substituted by a layer of polyethylene film or minimum 40 microns thickness (see IS 2508: 1984).

9.2 The "Hand Gloves Knitted" shall be preserved with naphthalene at a minimum quantity of 5 kg per cubic meter of the volume of bale.

10.0 MARKING OF THE BALES

Each bale shall be legibly marked by 40-50 mm letter stenciled with indelible marking ink / paint with following details on the box :

- a) Nomenclature of the store
- b) Qty. packed in the bale
- c) Supply order number with date
- d) Inspection note number and date
- e) Serial number of the bale
- f) Month & year of packing
- g) Gross wt. of the box
- h) Address of consignee
- i) Complete address of the Manufacturer

11.0 REFERENCES:

SI. No.	METHOD/ SPEC. No.	TITLE
(a)	IS 667: 1981	Methods for identification of textile fibres
(b)	IS 2006: 1988	Method for quantitative chemical analysis of binary mixtures of protein fibres with certain other non-protein fibres
(c)	IS 5450: 1986	Specification for gloves, wool, Knitted
(d)	IS 971: 1983	Method for determination of colour fastness of textile material to perspiration
(e)	IS 1390: 1983	Methods of testing of pH value of aqueous extract
(f)	IS 2454: 1985	Methods for determining of colour fastness of textile materials to artificial light (xenon lamp)
(g)	IS 2500 (Part 2): 1965	Sampling inspection tables
(h)	IS 687: 1977	Method for determination of colour fastness of textile material to washing
(i)	IS 6359:1971,	Method for Conditioning of Textiles

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