

Director General CRPF
Block No. 1 CGO Complex, New Delhi-110003
(Govt. of India/Ministry of Home Affairs)
(Phone / Fax- 011-24360155)
(E-Mail- digprov@crpf.gov.in)

No.U.II-98(Spec)/2018-19-Prov-(Cardigan)-14

Dated, the 7 December 2018

To

The DsG: AR, BSF, CISF, ITBP, NSG, SSB and BPRD

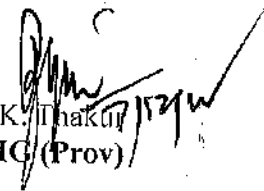
Subject: QRs/Specification of "Cardigan (Open Front)" for CAPFs

This is with reference to SSB Directorate letter No. 4/Proc/SSB/GeM/Cardigan(O.F)/2017(11)/1385 dated 12/06/2018 regarding proposal for framing of QRs/Specification of **Cardigan (Open Front)** and to say that the QRs/Specification has been finalized by Sub-Group of CAPFs and further approved by Competent Authority.

2. Henceforth, all the CAPFs may procure the above item required by them, strictly as per the laid down revised QRs/Specification.

3. This has the approval of DG, CRPF vide E-Office No. 129 dated 03/12/2018 (empowered vide MHA letter F.No. 11012/02/2009-Fin-I-17 dated 02/01/2018).

Encl: As above.

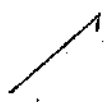

R.K. Thakur
DIG (Prov)

No.U.II-98(Spec)/2018-19-Prov-(Cardigan)-14

Dated, the December 2018

Copy forwarded to:-

1. **SO (IT)**, North Block-with request to upload the approved QRs/Specification of Cardigan(Open Front) to MHA Website. For information and necessary action please on his e-mail ID soit@nic.in
2. **DIG(IT)**, Dte Genl., CRPF -with request to upload this approved QRs/Specification of **Cardigan (Open Front)** for CAPFs" to CRPF Portal and Selo Module.


R.K. Thakur
DIG (Prov)

QR8/SPECIFICATION FOR "CARDIGAN (OPEN FRONT)"

- 1. This specification is intended to guide purchase, inspection and manufacture of Cardigan Open Front in Lieu of Jersey (M) for Ladies against Defence requirement.
- 2. In case of Discrepancy between this specification and any sample or pattern this specification shall be taken as correct.
- 3. Wherever a reference to any other specification occurs in this specification it shall be taken as reference to the latest version of the specification existing at the time of finalization of the contract.

1. SCOPE

1.1 This specification covers the requirements of Cardigan Open Front in Lieu of Jersey (M) Khaki in 7 sizes i.e. from 65 to 95. The cardigan is intended for use by Ladies.

2. Related Specifications

2.1 Reference is made in this specification to:-

- i) IS: 178 Twill Cotton Khaki
- ii) IS: 744 Method for determination of wool fibre dia
- iii) IS:1029 Mild steel Hoops
- iv) IS: 1380 pH value of aqueous extract.
- v) IS: 1461 Button Plastic
- vi) IS: 1670 Breaking load of yarn 50 cm between the cm
- vii) IS: 1720 Sewing Cotton
- viii) IS: 1912 Twill Jute 3 Ply
- ix) IS: 2360 No of wales and courses per dm
- x) IS: 2454 Method for determination of fastness to light by Xenon Arc
- xi) IS: 2508 Polythene film
- xii) IS: 3361 Method for determination of wash fastness to Textile materials.
- xiii) IS: 3751 Cloth 'C' Heavy
- xiv) IS: 4905 Method for random sampling
- xv) IS: 5911 Fineness grade of wool tops
- xvi) IND/TC/2284 Button Titch Type.
- xvii) IND/TC/0321 Tape Cotton Khaki

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3. STANDARD PATTERN


3.1 The standard pattern held in the custody of the Inspecting Authority shall constitute the standard as regards general working ship, feel, finish and other aspects not defined in the specification.

4. MATERIALS


4.1 The jersey shall be manufactured from the following materials

Sl/No	Components	Material	Particulars
01	Body and sleeves	Basic Knitted Fabric Khaki	Manufactured from yarn worsted 45 Tex/2. The yarn shall be spun from all wool of 64 th grade.
02	Reinforcement of buttons:- button holes and shoulder seams.	Twill Cotton Khaki	IS: 178 Variety No. 1
03	Reinforcement of Shoulder cuff and armpit seams	Tape Cotton Khaki 6 mm	IND/TC/0321
04	Buttons	a) Button Plastic 13 mm Khaki	IS: 1461
		b) Button Titch	IND/TC/2284
05	Stitching	Sewing Cotton 25 Tex/3 Khaki	Variety No. 11 of IS: 1720
06	Inter locking	a) Yarn worsted 45 Tex/2 Khaki	Same as used for fabric
		b) Cotton sewing Khaki	Variety No. 11 of IS: 1720

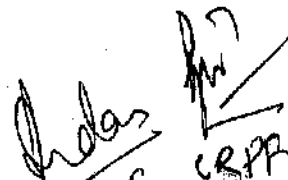
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5. MANUFACTURE

5.1 The body including sleeves shall be knitted from yarn worsted 45 Tex/2 in plain texture. The cuffs and bottom rib shall be knitted in IXI rib knit.

The fabric shall be uniform in shade, texture and appearance and free from ridge or stripe effect. The cuffs and Rib bottom shall not be too tight in texture and shall contain at least four strengthening rounds one after the other or in two strips or two rounds each at rib edge. The welt shall be of double layer of plain knit material secured with interlock stitching as shown in the plate. The cuffs shall be knitted separately in IXI rib knit and attached to the sleeves as shown in the plate.

5.2 The cardigan shall be fabricated to the required size and dimensions as given in Appendix. The shape and design of the cardigan shall be as shown in the plate attached to this specification.

5.3 The distance from V shape neck to the 1st button shall be 25 mm and the distance from the button edge to the press button shall be 15 mm. The distance between the two buttons shall be 15 mm. The distance between the two buttons shall be 50 mm.

5.4 The button and button hole shall be reinforced on the inside of the Cardigan with Twill cotton khaki. The buttons shall be securely attached to the garments either by machine or hand stitching. The button shall be wound with double thread to form a neck of approximately 1.5 mm. The seams at the shoulder, cuffs and armpit shall be strengthened with tape cotton khaki as shown in the plate attached to this specification.

5.5 All the stitching and interlock stitching shall be of even tension through-out , with all loose ends securely fastened and trimmed off. The number of stitches / cm shall not be less than 4 at any place.

6. WORKMANSHIP AND FINISH

6.1 The cardigan shall be free from soap, oil, grease or any other ingredients used in the manufacture and shall be delivered in clean and dry condition. They shall have pressed finish by boarding on boards of corresponding size only.

6.2 In appearance, general workmanship, feel and finish the cardigan shall conform to the sealed pattern held in custody of controller C.I.T & C Kanpur.

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7. **QUALITATIVE REQUIREMENTS**

7.1 The cardigan shall conform to the following qualitative requirements:-

Sl. No.	Characterics	Requirements	Method of Test
1	Linear density of yarn	45 Tex / 2+3	IS 3442:1980
2	Fineness grade of wool (when taken out from finished garment)	64 ^s as per IS: 5911: 1977 except clause 1.2	IS: 744:2000
3	Breaking load of yarn (50 cms between the gripe)	5000 mN (Min)	IS:1670
4	Composition	All wool	IS: 2006
5	No. of wales per dm	38+ 2	As per clause A-4 of IS: 2360
6	No of courses per dm	46+ 2	
7	pH value of aqueous extract	5.0 to 7.5	IS: 1390 (cold method)
8	Colour fastness to		
	a) Light	i) Class V (five) or better (On blue wool) ii) Rating 5 or better	IS: 2454:1985
	b) Washing	Rating 4 or better	IS/ISO 105 C10: 2006, B(2)
9	Dimensional Change (Due to Relaxation)	5% (max)	As per clause A-5 of IS: 2360:1977
10	Scouring loss	4% (max)	As per clause A-6 of IS: 2360
11	Dimensions and mass	As per appendix attached	As per clause A-2 and A-3 of IS:2360

8. **SEALED SAMPLE**

8.1 Each cardigan shall have a suitable cloth label on the inside of the neck and shall be stitched securely on all four sides.

The label shall be of white back ground on which the following details shall be embroidered with a thread of contrasting colour dyed with fast dye

- a) Nomenclature of the store
- b) Size No & Cat No.
- c) Manufacturer's name or trade mark
- d) Year of manufacture

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9 PRE- INSPECTION

9.1 Manufacturers / Contractors must satisfy themselves that the stores are in accordance with the terms of the contract and fully conform to the required specification by carrying out a thorough pre-inspection of each cardigan before actually tendering the same for inspection to the Inspecting Officer nominated under the terms of the contract. A declaration by the contractor that necessary pre-inspection has been carried out on the stores tendered will be submitted alongwith the challan. The declaration will also indicate the method followed in carrying out pre-inspection showing the features and checked/ tested and will have the test certificate attached to the challan/ declaration.

9.2 If, the inspecting officer finds that pre-inspection of the consignment as required has not been carried out, the consignment is liable for rejection.

Pre-Inspection Report

From

To

The Inspector

IGs.....
Contract No.....
Observation on


Challan No. & date
Quantity tendered
Workmanship & Finish

NB: Test certificate regarding dimensions composition, wool quality, breaking load of yarn and other characteristics as contained in the laboratory is enclosed.

Date.....

Place.....

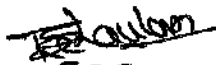
Signature of the Supplier


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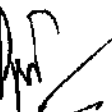

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10. SAMPLING

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10.1 The supplier shall offer the store serially numbered and arranged in lots of appropriate size in such a way that the entire lot is accessible to the Inspector. Based on the lot size the Inspect shall draw samples for preliminary visual examination as per column 2 of the Table given below using technique of simple random sampling as per IS: 4905. The samples so drawn shall be examined visually for the following:-

- i) Homogeneity, appearance and uniformity of shade and other dyeing defects
- ii) Dimensions
- iii) Mass
- iv) Wales and courses
- v) Knitting / Tailoring defects.

10.2 If non-conforming cardigan do not exceed the corresponding number given in column 3 of the table, sample units as per column 4 of the table shall be drawn for laboratory tests from the cardigan drawn and examined as per column 2 of the table

Lot Size (No of cardigan)	Sample Size for preliminary visual examination	Permissible No of Non-conforming cardigan	Sub samples size for lab test
Up to 1000	30	2	5
1001 to 3000	50	3	8
3001 & above	80	5	13

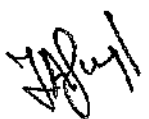
11 CRITERIA OF CONFORMITY

11.1 If the samples meet the requirements specified in the specification the lot shall be considered to be in conformity with the specification requirements subject to inspection.

12. INSPECTION

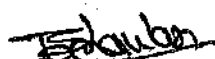
12.1 If on examination of any sample from any portion of a consignment the material is found to be not fully in accordance with this specification, the whole supply may be rejected.

12.2 All cardigan not fully in accordance with the specification shall be rejected.


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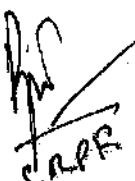

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13 PRESERVATION

13.1 The cardigan shall be preserved and packed with Naphthalene Balls using a minimum quantity of five kilogram per cubic metre of the bale volume.

14. PACKING MATERIALS

14.1 The following materials conforming to the specification shown against each shall be used in packing:-

Specified packing material	Specification no.
i) Steel strapping 16 mm wide and 0.9 mm thick	IS: 1029 (Med Grade)
ii) Twine jute 3 ply	IS: 1912
iii) Polythene film 0.04 mm	IS: 2508
iv) Cloth 'C' Heavy	IS: 3751
v) Slats Wood	Best trade quality approved by inspecting officer.

14.2 The following substitute materials conforming to the specifications shown against each can also be used with prior permission of the Inspecting Officer:-

i) Galvanised Mild Steel wire 1.8 to 2.0 mm dia	IS: 280
ii) Cloth Hessian Mod (In two layers)	IS: 2818 (Pt II)
iii) String Cord	Best trade quality approved by the Inspecting Officer
iv) Bamboo strips	

15. PACKING

15.1 The cardigan shall be packed as per details given below:-

15.1.1 Cardigan of only one type and one size shall be packaged in a unit pack/bale.

15.1.2 UNIT PACK Ten jerseys suitably folded and Napthalene preserved shall be tied together with twine jute 3 ply or equivalent cord to form a unit pack.

15.1.3 MULTIPLE PACK- Ten unit packs shall then be properly arranged and wrapped with an inner layer of polythene film 0.04 mm thick and an outer layer of cloth 'C' heavy or cloth hessian medium to form a bundle of rectangular shape. In no case the bundle shall be pressed. The mass of the bales shall be approximately 40 kg and necessary cloth "C" heavy shall be at least 25 cm so as to ensure full protection to the contents of the bundle. The overlapping of outer layer of hessian cloth shall be such type. It can be properly and securely sewn at the sides.

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15.1.5 The bundle shall be stitched with 3 ply twine jute with not less than 6 stitches per decimeter taking care not to piece the inner layer of the bale.

15.1.6 Sufficient hessian cloth shall pulled out at each corner and "ears" of about 25 cm in length shall be formed.

15.1.7 Slats wood approximately 7 cm wide and 1 cm thick and free from rot or fungal or insect attack or alternatively sound bamboo strips duly preserved with creosote shall be placed lengthwise along the edges of the bale and finally bound with at least 2 bands of mild steel hoops of alternatively galvanized mild steel wire in each direction along length and width of the bale.

15.1.8 In order to ensure safety and prevent pilferage of the contents of the bale the following precautions shall be taken at the time of packing and bailing.

15.1.8.1 The bundles shall be tied firmly with twine jute 3 ply at sufficient number of places depending on the shape and size of the contents.

15.1.8.2 The bales shall be packed somewhat loosely.

15.1.8.3 Each band of metal hoop binding the bale shall be of the complete piece and the and shall be sealed with machine or alternatively securely, ribotted. Where banding machines are not available, the bales shall be properly and securely bound sing G.I. wire.

15.1.8.4 The bales shall be bound with additional bands of metal hoops/wire if the dimensions of the sales exceed 60 cm in any of the directions, so that no two. Bands/hoops are more than 25 cm apart.

15.1.8.5 The seams of the bale shall be with indelible ink/paint.

15.2 if ordered for delivery to a local inspection Depot, the stores shall be delivered loose in firms returnable packs. After specific qty. the accepted supplies shall be packed as described in para 15 above,

16 MARKING OF PACKAGE

16.1 Before dispatch each bale shall be legible marked by stencil with indelible / marking ink/paint showing the following details:-

- Nomenclature and Cat No of the store
- Quantity packed in the bale.
- Lot and serial no. of the bale.

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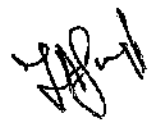
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- d) Month and year of packing
- e) Name and trade mark of the manufacture
- f) Gross mass of the bale in kg.
- g) Name and address of consignee
- h) AT No and date
- i) Inspection Note No and date
- j) Naphthalene preserved.



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APPENDIX

All measurement in centimeters as per plate attached

Size	Round chest	Length of body	Sleeve		Length of Cuff	Width of sleeve at cuff	Opening		Across Width across shoulder	Mass Per 10 garments (min)	In Per Cardigan
			Length including cuff	Width of armhole			Depth of opening buttoned	Width			
65	65	40	40	15	7	11.5	19	13	33	2350	235
70	70	43	43	16	7	11.5	20	14	34	2500	250
75	75	45	45	17	7	11.5	21	14	35	2550	265
80	80	48	48	18	7	11.5	22	16	36	2800	280
85	85	50	50	19	7	11.5	23	16	37	2950	295
90	90	52	52	20	7	11.5	24	16	38	3100	310
95	95	55	55	21	7	11.5	25	16	39	3250	325

Tolerance +2 ± 2 +2 +1 ± 0.5 ± 1.0 ± 1.0 ± 1.0 ± 5

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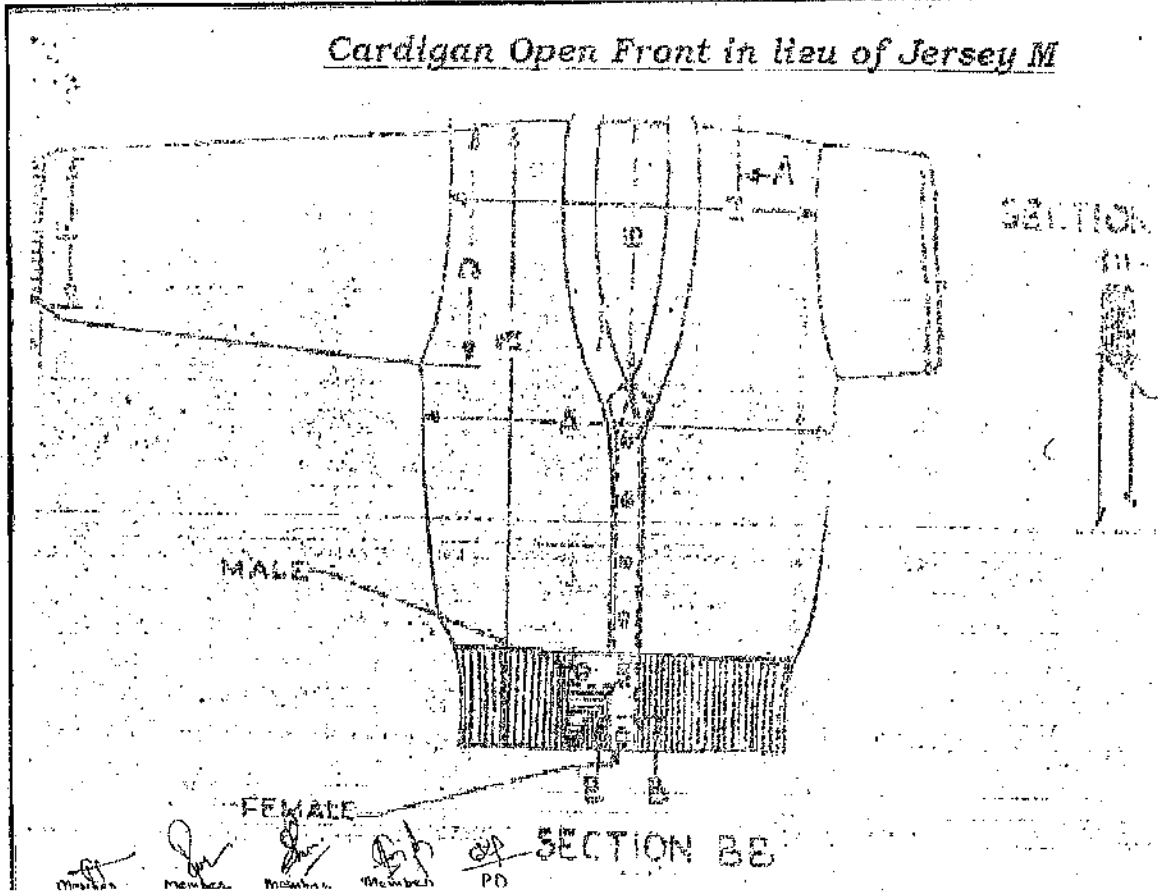
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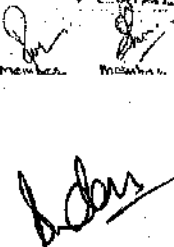
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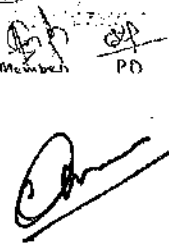
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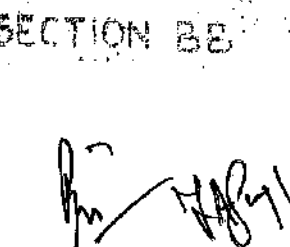
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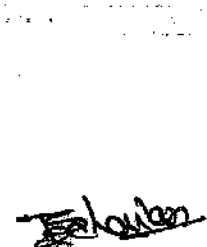



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Anupam Kulshreshtha, IPS, IG(Prov), CRPF


Rajeev Rai Bhatnagar, IPS
DG CRPF