

DIRECTORATE GENERAL, CRPF
BLOCK NO.1, CGO COMPLEX, LODHI ROAD,
NEW DELHI - 110 003

No.U.II.98(spec)/2024-25-Prov(RevisedQR-
Gloves&CapComforter)DA-14

18-06-2025

EXPRESSION OF INTEREST

CRPF is in the process of revising the QR (Qualitative Requirements) specifications for the Cap Comforter Woollen for all CAPF. The draft revised QRs/Specification of these items are attached herewith.

The interested firms/parties dealing in subject matter are invited to submit their views/opinions on the draft revised QRs/ Specification of the item by **03/07/2025**.

18-06-2025
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Technical Specifications for Cap Comforter

for -10°C Conditions

The shape, dimensions and design of the “**Cap Comforter**” shall be as shown in Fig 1 to 2. The “**Cap Comforter**” shall be manufactured with the details mentioned in the table 1 and 2

TABLE -1

S. No.	Test parameters	Requirement	Test Method*
1	Fibre Identification/ Composition	Top & Bottom Layer Polyester 94%+/- 3% Elastane Min 5%	AATCC 201A:2020
2	Fabric Weight	190 to 210 gsm (For both top & bottom layer)	IS 1964-2001 RA 2022 (Method A)
3	Anti fungal	No fungal growth; Effectiveness to be shown against at least 5 fungal strains	AATCC 30 (Part III) - 2017 / Bioburden Study / US Military Standard 810G 508.7
4	Anti bacterial	Minimum Log 4 (99.99%) reduction in bacteria; Effectiveness to be shown against at least 5 bacteria	JIS L 1902: 2015 / AATCC 100
5	Breathability / RET factor	4 m ² Pa/W or less	ISO 11092 - 2014
6	Thermal Resistance (Rct factor)	.100 m ² k/W or more (top & bottom layer combined)	ISO 11092: 2014
7	Thermal Insulation, clo	Minimum 0.7 (top & bottom layer combined)	ISO 11092
8	Fabric absorbency rate	3 sec (Max)	AATCC-79
9	Wicking (time taken to reach 22mm)	10 sec (Max)	AATCC-197
10	Fabric drying rate	1.5000 ml/hr or more	AATCC 201
11	Anti UV / UV Protection	UPF 30 (97% blockage of UV-A and UV-B radiation) or more	AATCC 183
12	pH Value of aqueous extract (cold method)	6.0 to 8.5	IS 1390: 1983
13	Banned Azo Colorants	None	IS 15570: 2005
14	Pilling resistance	3.5 or better	IS 10971 (Part 1) 2011 RA 2017
15	Dimensional stability	+ - 4% (both directions), maximum	IS 2977-1989 / ISO 6330:2012
16	Busting strength	800 kPa (Min)	IS 1966 (Part -1) 2009 RA 2018 / ISO: 13938 - 1 (Hydrolic Method)

17	Colour fastness to Water	4 or better	IS / ISO 105 E01 2010 RA 2017
18	Colour fastness to Rubbing	Dry & Wet: 4 or better	IS 766-1988 / IS/ISO 105-X12: 2001 RA 2016
19	Colour fastness to Light	4 or better	IS 2454:1985
20	Colour fastness to Laundering at 40°C	Change in colour: 4 or better	IS/ISO 105 C 10: 2006 RA 2017 Test A (1)
21	Colour fastness to Perspiration	4 or better	IS 971:1983 / IS/ISO 105 E04: 2008 RA 2019
22	Breaking Strength Wales Wise Course Wise		IS 1969 (Part-1) 2009 RA 2018
		250 N (Min)	
		200 N (Min)	
23	Bursting Strength	800 kPa (Min)	IS 1966 (Part-1) -2009 RA 2018
24	Seams Strength Wales Wise Course Wise		ISO 13935 Part-2 RA 2020
		200 N (Min)	
		150 N (Min)	
25	Count/Denier of yarn removed From knitted fabric	50D min	IS 3442-1981 RA 2018
26	Ignition Testing	No Ignition	ISO 12952-1/2 : 2010
27	Type of Knit	Flat Knit or Circular Knit	Visual
28	Ply of sewing thread	3 ply	Visual
29	Color of sewing thread	Matching to the cap	Visual
30	CRPF emblem	Printed as per the sample	

* Latest version of testing Method will be used.

TABLE -2

Dimension chart of the cap :All dimensions are in cms

Sr. No	Dimensions		Measurements (cms)			Tolerance
			Small	Medium	Large	
1.	Total Length of the cap :	A	31.5	32	33	±2.0
2.	Width of the cap:	B	27	28.5	29	±0.5
3.	Length of the cap	C	22	24	26	±0.5
4.	Width of the flap :	D	9.5	9.5	9.5	±0.5

