

Draft QRs/ SPECIFICATIONS FOR CAPS BALACLAVA SNOW

1.0 SCOPE

1.1 This specification covers the requirement for “Caps Balaclava Snow” Black or any other shade as per CAPF requirements.

1.2 This specification does not specify general appearance, feel etc. of the “Caps Balaclava Snow”.

2.0: MATERIAL

The Caps Balaclava Snow are crafted with 2- layer box fleece. Further details are as given below: -

Description	
Temperature	For Low temperature / upto -20 °C
Type of Caps Balaclava Snow	2-Layer
Material	Box fleece
Composition	Polyester -More than 95% +/- 5% and remaining others

3.0: Manufacture

3.1 The shape, dimensions and design of the “Caps Balaclava Snow” are shown in Fig.1



4.0 WORKMANSHIP

The “Caps Balaclava Snow” shall be free from manufacturing defects such as large mends, ladders, dropped stitches, noticeable oil or other stains, holes, cuts, sewing defects, 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 Caps Balaclava Snow.

5. Technical Specifications for Caps Balaclava Snow

The shape, dimensions and design of the “Caps Balaclava Snow” shall be as shown in Fig 1. The “Caps Balaclava Snow” shall be manufactured with the details mentioned in the table 1 and 2.

TABLE -1

Sr. No.	Test parameters	Test method	Requirement
1.	Identification and Material Composition		
	2- Layer Box fleece	Visual	box fleece
2.	Polyester- 2-layer	IS: 667	Polyester - 95%+/- 5% and remaining others
3.	Mass	IS 1964-2001 RA 2022 (Method A)	200 g/m ² ± 5% (individual layers)
4.	Anti-fungal	AATCC 30 (Part III) - 2017 / Bioburden Study / US Military Standard 810G 508.7	No fungal growth; Effectiveness to be shown against at least 5 fungal strains
5.	Antimicrobial Efficacy a) Staphylococcus aureus: %Reduction b) Klebsiella pneumoniae: %Reduction	AATCC 100	> 90% > 90%
6.	Breathability / RET factor 2-Layer	ISO 11092 - 2014	4 m2Pa/W or less (individual layers)
7.	Thermal Resistance, CLO 2 Layer	ISO 11092: 2014	0.6 or more (top & bottom layer combined)
8.	UPF Protection	AATCC 183	UPF 50 (99% blockage of UV-A and UV-B radiation) or more
9.	pH value of aqueous extract (cold method)	IS :1390: 1983 Cold method	6.0 to 8.5
10.	Pilling resistance	IS 10971 (Part 1) 2011 RA 2017	3.5 or better
11.	Dimensional Stability of fabric Lengthwise Shrinkage Width-wise Shrinkage	IS 2977-1989 / ISO 6330:2012	+ - 4% (both directions), maximum
12.	Bursting Strength	IS 1966 (Part -1) 2009 RA 2018 / ISO: 13938 - 1 (Hydraulic Method)	Minimum 350 Kpa
13.	Colour fastness to light	IS 2454:1985	4 or better
14.	Colour fastness to washing	IS /ISO 105-C10-2006	4 or better
15.	Colour fastness to rubbing	IS 766-1988 / IS/ISO 105-X12: 2001 RA 2016	Dry & Wet: 4 or better
16.	Colour fastness to Perspiration	IS 971:1983 / IS/ISO 105 E04: 2008 RA 2019	4 or better
17.	Sewing thread identification	IS 667	100% polyester
18.	Ply of sewing thread & Color of sewing thread	Visual	3 ply Matching to the cap
19.	CAPF emblem (as per user requirement)	Table 2	Printed/Embroidery as per the user requirements

6. LOGO: -

The CAPF logo (as per user) is prominently positioned on the flap of the Caps Balaclava Snow, serving as a distinctive focal point that enhances the overall aesthetic appeal of the headwear. This placement ensures high visibility while maintaining the functional integrity of the Caps Balaclava Snow. The logo is typically embroidered or heat-transferred with precise craftsmanship to withstand the wear and tear associated with outdoor use.

Table-2

Sl no	Parameters	Requirements	Test methods
1	Logo Placement	Front Centre on the flap (above forehead area)	Visual (by user as per his requirements)
2	Logo Type	Embroidered / Printed (based on requirement)	
3	Logo Size	As per user requirement	
4	Logo Position	Centred Horizontally 0.4 inch (1cm) from bottom	It should be free from defects
5	Color of Logo	As per user requirement	
6	Logo	As per user requirements	
7	Successful bidder will obtain concern CAPF logo (as per user).		

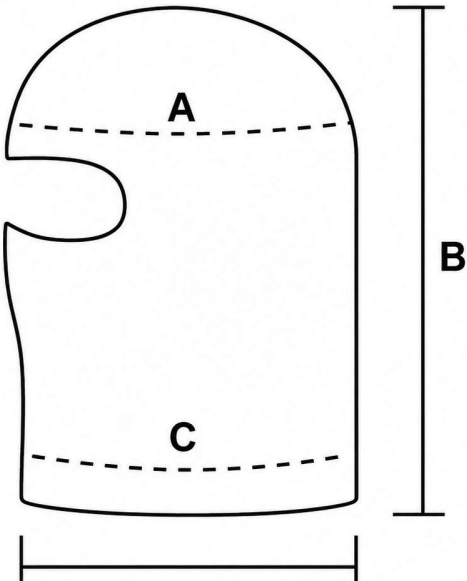
7. Size chart of Caps Balaclava Snow:

TABLE -3

Dimension chart of the Caps Balaclava Snow: All dimensions are in CMs

Measurement	S	M	L	XL	2XL	3XL
(B) Length	14 3/4	15	15 1/4	15 1/2	16	16 1/4
(C) Bottom Neck	8 1/2	8 3/4	9	9 3/4	10	10 1/2
(A) Head Circumference	17	17 1/2	18	18 1/2	19	19 1/2
Eyes Open	2 1/2	2 1/2	2 1/2	2 1/2	2 1/2	2 1/2

Balaclava Size Chart



8. SAMPLING

8.1 The sampling procedure detailed in 8.2 and 8.3 shall give desired protection to the buyer and the seller, provided that the lot submitted for inspection is homogeneous. To achieve this, the manufacturer shall maintain a system of process control at all stages of manufacturing ensuring the “Caps Balaclava Snow” tendering by him for inspection to comply with the requirements of this standard in all respects.

8.2 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.

Table-4: Number of “Caps Balaclava Snow” to be selected from a lot and permissible number of non-conforming “Caps Balaclava Snow”

Sample Size, Permissible Number of Non-Conforming and Sample drawn for Testing

Lots Size in No's	Visual Inspection (As per GIL-1 AQL-4)		Physical Parameters (As per SIL-4 AQL-4)		Chemical Parameters (As per SIL-2 AQL-4)	
(1)	Sample Size (2)	Acceptance No (Permissible Number of Non-Conforming) (3)	Sample Size (4)	Acceptance No. (5)	Sample Size (6)	Acceptance No. (7)
Up to 280	13	1	13	1	5	0
281-500	20	2	13	1	5	0
501-1200	32	3	20	2	5	0
1201-3200	50	5	32	3	8	1
3201-10000	80	7	32	3	8	1
10001-35000	125	10	50	5	8	1

Note: Sampling officer will select sampling unit randomly and select ultimate items from each sampling unit as per the above table.

8.4 Lot: For the purpose of conformance inspection and test sampling, a lot is defined as all the completed “Caps Balaclava Snow” of the same size and type, with same assemblies, produced in one facility, using the same production processes and materials and being offered for delivery at one time to buyer against a dispatch note.

8.5 The Buyer reserves the right to carry out inspection of bigger lot sizes, even to the extent of 100% inspection, if considered necessary.

8.6 The sample size and the criterion for conformity for various characteristics shall be as follows:

Characteristics	Sample size	Criteria for conformity
Freedom from defects, manufacture and dimensions	All the “Caps Balaclava Snow” shall be inspected according to the column 2 of table 4	Non-conforming “Caps Balaclava Snow” not to exceed the corresponding number given in col. 3 of table 4
Nature of fibre, Construction, Dimensional change, Scouring loss, pH value, colour	All the “ Caps Balaclava Snow ” shall be inspected according to the column 4 of table 4	All the “Caps Balaclava Snow” to satisfy the relevant requirements.

Characteristics	Sample size	Criteria for conformity
Colour fastness to light	One each for lot size upto 500 “Caps Balaclava Snow” and two if lot size is 501 and above	All the “Caps Balaclava Snow” to satisfy the relevant requirements.

9. Marking: - Inspect marked Caps Balaclava Snow for clarity, adhesion and durability. Avoid markings that bleed or peel. The proper marking on Caps Balaclava Snow is crucial for regulatory compliance and user safety. If direct marking on the Caps Balaclava Snow is not feasible, the information should be provided on the Taffeta printed label attached on inner side of every Caps Balaclava Snow. The marking shall include: -

- a) Size of Caps Balaclava Snow
- b) Instruction regarding maintenance
- c) Firm Name/ logo.
- d) Name of the Force
- e) Year of manufacturing
- f) Any other information required by buyer.

10. Packaging and Packing: - Caps Balaclava Snow carefully inspected and individually packed in protective plastic bags to prevent contamination and damage. These are then grouped and systematically placed into sturdy corrugated cartons designed to hold specific quantities, ensuring efficient space use and protection during transit. The cartons are securely sealed, labelled with product details, batch numbers, and handling instructions, and finally palletized with stretch wrap for stable shipment. This packing and packaging process guarantee the gloves arrive clean, intact and ready for distribution.