

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).

100
1000
10000

287

Annexure-E

#

CENTRAL RESERVE POLICE FORCE STANDARD

SPECIFICATION FOR SCOURED AND BLEACHED RIB KNITTED ROUND NECK SLEEVELESS AND SHORT SLEEVE VESTS

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 :

NORTHERN INDIA TEXTILE RESEARCH ASSOCIATION
Sector-23, Raj Nagar, Ghaziabad (U.P.)
Email : mail@nitratextile.org Fax: 0120-2783596

286

**SPECIFICATION FOR SCOURED AND BLEACHED RIB
KNITTED ROUND NECK SLEEVELESS AND SHORT
SLEEVE VESTS**

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

285

PREAMBLE

The Inspector General of Police, CRPF, has asked NITRA to prepare technical specifications for "Scoured and bleached Rib knitted cotton round neck sleeveless and short sleeve vests". The specification describes the fabric particulars and properties – courses/inch, wales/inch, weight, yarn count, fibre composition, dimensions, color fastness to light, whiteness index, pH, dimensional change due to washing etc.

Bureau of Indian Standards (BIS) and American Association of Textile Chemists and Colorists (AATCC) test methods are considered to draw the specification.

This report contains 14 pages which describe the technical specifications of "Scoured and bleached Rib knitted cotton round neck sleeveless and short sleeve vests" for CRPF.

This technical specification will enable the CRPF to prepare tender documents (technical details) at the time of placing orders for "Scoured and bleached Rib knitted cotton round neck sleeveless and short sleeve vests" and final inspection as well.

284

**SPECIFICATION FOR SCOURED AND BLEACHED RIB
KNITTED ROUND NECK SLEEVELESS AND SHORT
SLEEVE VESTS**

C O N T E N T S

ITEM	SUBJECT	PAGE NO.
0	FORWARD	1
1	SCOPE	2
2	MATERIAL AND MANUFACTURE	2
3	STITCHING	2
4	WORKMANSHIP AND FINISH	4
5	SEALED SAMPLE	4
6	REQUIREMENTS	5
7	SAMPLING	10
8	MARKING	11
9	PACKAGING & PACKING	12
10	TERMINOLOGY	13
11	REFERANCES	13
	ANNEX -1	14

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 The specification prescribes the requirement of "Scoured and bleached Rib knitted cotton round neck sleeveless and short sleeve vests" herein referred as "Vest".

1.2 This specification does not specify the general appearance, lusture, feel, type of finish of "Vest"

2.0 MATERIAL AND MANUFACTURE

2.1 The style and shape with dimensions of the round neck sleeveless and round neck short sleeve of "Vest" are shown in the Fig. 1 & 2.

2.2 The "Vest" shall be manufactured using 100% cotton yarn. For guidance, 40s count cotton yarn may be used (refer IS 834).

2.3 The "Vest" shall be tailored out of well and evenly knitted tubular 1X1 rib fabric made from circular knitting machine. The width of the knitted fabric roll from which the vest is to be tailored shall correspond to the size of the vest. The finish of the "Vest" shall match with the sample held in the custody of CRPF.

3.0 STITCHING

3.1 The type of stitch (refer IS 11161 and IS 10789) and count of sewing thread (white colour) for seams and stitches at various portions of vest shall be as given in Table 1. All the stitches shall be of even tension throughout with all loose ends fastened.

Table-1 Seams and stitches

Sl. No	Portion to be stitched	Type of stitch	Number of stitches per cm, Min.	Recommended Thread in the needle(s)	Recommended Thread in the Looper(s)
1	2	3	4	5	6
Sleeveless vest					
1	Tape/welt sewn to neck opening and arm holes	Cover Stitch (602)	4	For guidance resultant 18s count of Viscose rayon sewing thread	For guidance resultant count (Ne) 2/56s of Polyester sewing thread
2	Hemming at the bottom	3-thread overlock (504)	4	For guidance 150 Denier Polyester filament sewing thread	For guidance 150 Denier Polyester filament sewing thread
3	Shoulder piece attach	3-thread overlock (504)	4	For guidance 150 Denier Polyester filament sewing thread	For guidance 150 Denier Polyester filament sewing thread
Short sleeve vest					
4	Tape/welt sewn to the neck opening	Cover stitch (602)	4	For guidance resultant 18s count of Viscose rayon sewing thread	For guidance resultant count (Ne) 2/56s of Polyester sewing thread
5	Hemming at the bottom	3-thread overlock (504)	4	For guidance 150 Denier Polyester filament sewing thread	For guidance 150 Denier Polyester filament sewing thread
6	Shoulder piece, sleeve to the vest and sleeve under arms	3-thread overlock (504)	4	For guidance 150 Denier Polyester filament sewing thread	For guidance 150 Denier Polyester filament sewing thread

3.2 The minimum depth of hem or width of folding, width of tape/welt at arm holes, at sleeves and at neck opening shall be as under:

- I. Depth of hem or width of folding at neck and arm-hole opening for Round neck sleeveless vest shall be 15 ± 1 mm.
- II. Depth of hem or width of folding at neck opening for Round neck short sleeve vest shall be 15 ± 1 mm.
- III. Width of folding at bottom for both types of vests shall be 30 ± 1 mm.
- IV. Width of tape/welt at sleeves for Round neck short sleeve vest shall be 15 ± 1 mm

4.0 WORKMANSHIP AND FINISH

The "Vest" shall be free from workmanship defects i.e. texture, knitting flaws etc. The "Vest" shall not have missed stitches, hole, cut, oil stains or any other defect which may significantly affect the appearance or serviceability of "Vest".

5.0 SEALED SAMPLE

In order to illustrate or specify the indeterminable characteristics such as general appearance, luster, feel and design of the "Vest", a sample has been agreed upon and sealed; the supply shall be conformity with the sample in such respects.

The custody of the sealed sample shall be a matter of prior agreement between the buyer and seller.

6.0 REQUIREMENTS

279

6.1 Dimensions

The dimensions of "Vest" when measured by the method prescribed in Annex- A shall conform to the requirements given in Table 2.

NOTE- The size is designated by a number which is the numerical value of chest girth of vest in cm. For example, an 85 size vest represents the vest with chest girth of 85 cm.

6.2 Other Requirements:

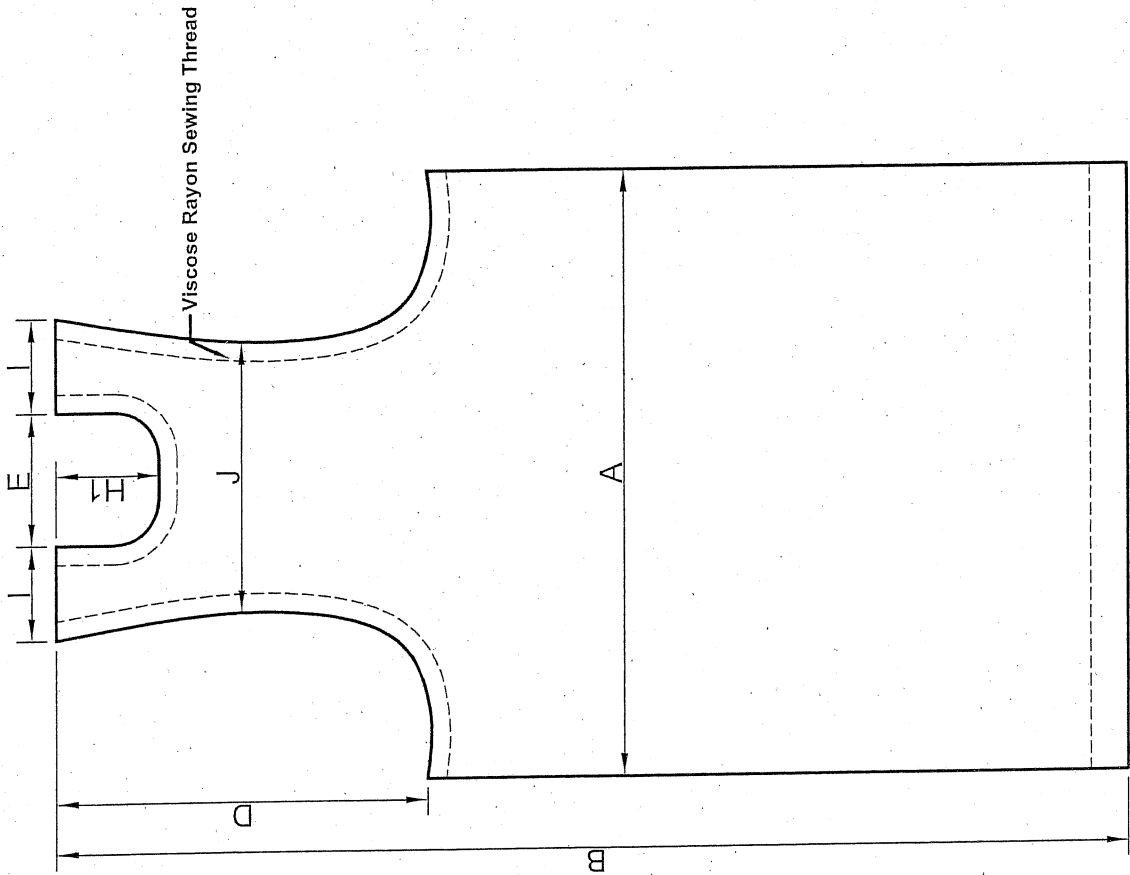
The "Vest" shall conform to the parameters as given in Table 3.

Table- 2 : Dimensions of "Vest"-Round neck sleeveless and short sleeves
All Dimensions in centimeters.

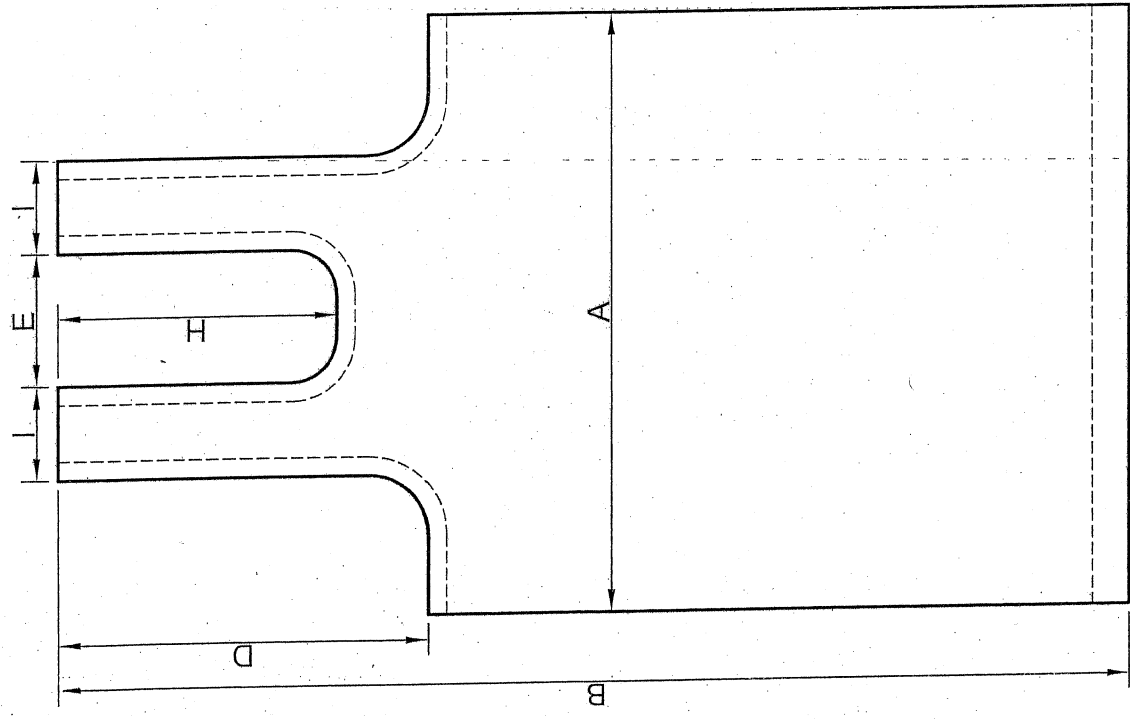
Size	Round neck short sleeve vest							Round-neck sleeveless				
	Width across Chest	Length of Vest (Min)	Length of Sleeve (short sleeve vest)	Length of arm Hole	Width of neck opening*	Depth of neck opening		Width at sleeve end	Depth of neck opening front H	Depth of neck opening Back H1	Width of shoulder strap	Across back
						Front F	Back F1					
85	42.5	68.0	17.0	21.0	9.0	14.0	3.0	14	16.0	7.0	I	J
90	45.0	72.0	18.0	23.0	10.0	15	3.0	14	18.0	9.0	6.5	7.25
100	50.0	80.0	20.0	25.0	10.0	15	3.5	15	19.0	9.0	6.5	7.27
105	52.5	82.0	21.0	26.0	11.0	16	3.5	15	19.0	9.0	6.5	7.27
110	55.0	84.0	22.0	27.0	11.0	16	3.5	15	20.0	9.0	6.5	7.27
Tolerance	±1.5	-	±1.0	±2.0	±0.5	±0.5	±0.2	±0.5	±1.0	±0.2	±0.2	±0.2

* For Round neck sleeveless and short sleeves
Note: Dimensions may be varied if desired by the buyer.

278



Back



Front

237

Fig.-1 Round-neck Sleeveless Vest

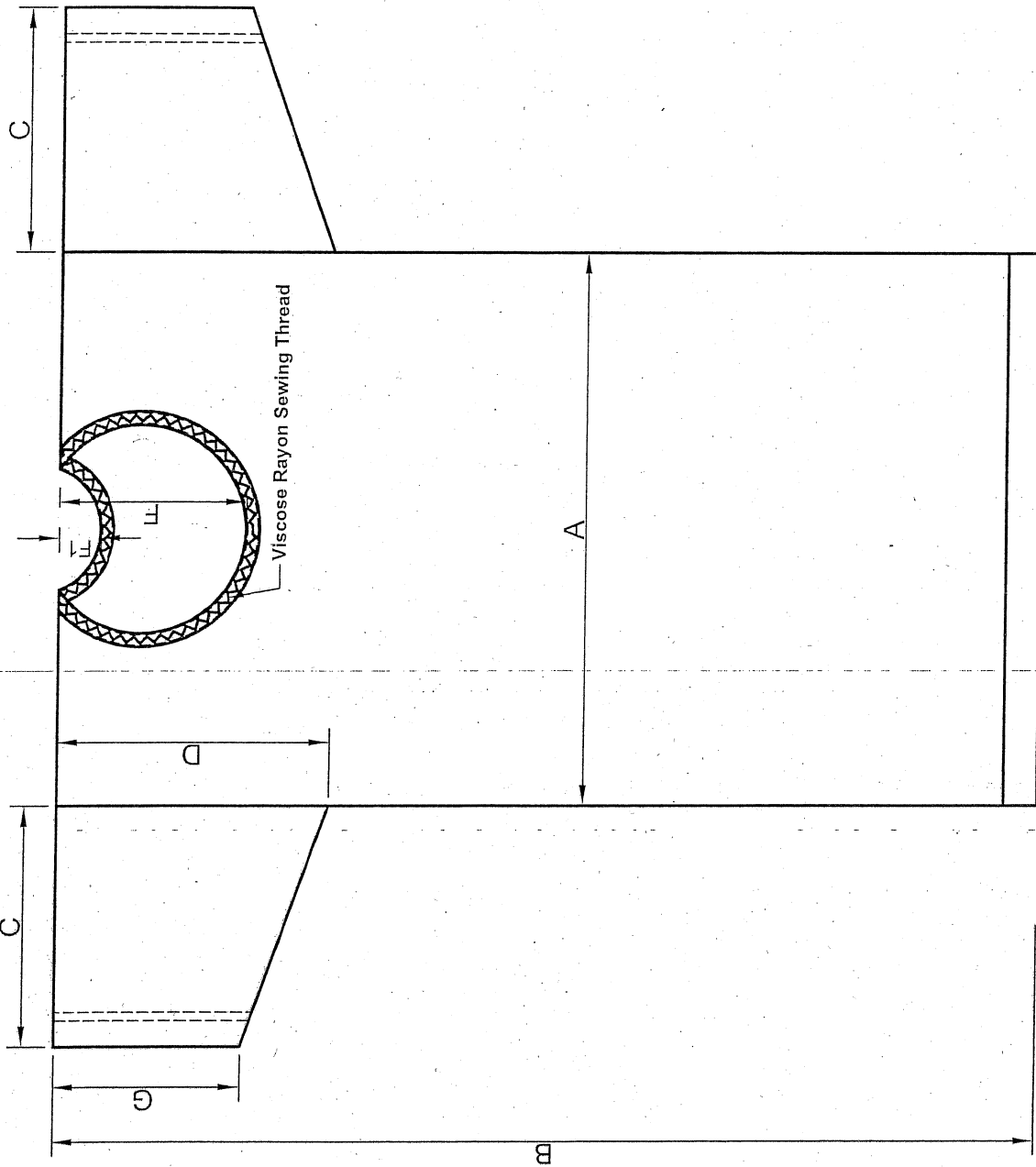


Fig.-2 Round - neck Short Sleeves Vest

Table 3: Requirements of "Vest"

Sl. No.	Parameters	Requirements	Method of Testing
1.	Composition	100 % Cotton	IS 667:1981
2.	Wales/dm, Minimum	110	B-3, IS:14759-2000
3.	Courses /dm, Minimum	130	B-3, IS:14759-2000
4.	Dimensional Change (due to relaxation), percentage, Maximum -Wales direction -Courses direction	5.0 5.0	B-2, IS:14759-2000
5.	Scouring loss, percentage, Max	2	IS: 1383 (Mild method)
6.	pH Value of aqueous extract	6.0 to 8.0	IS :1390-1983 (Cold method)
7.	Colour fastness to light	4 or better	IS: 2454-1985
8.	Presence of Fluorescent whitening agent	Yes	UV light source- Visual
9.	Whiteness Index (Minimum) (With fluorescent whitening agent) -CIE (D65/10°)	110	AATCC 110 Using 45/0 or 0/45 CIE geometry spectrophotometer

7.0 SAMPLING

7.1 The sampling procedure detailed in 7.2 and 7.3 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 "Vest" tendering by him for inspection to comply with the requirements of this standard in all respects.

7.2 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 "Vest" to be selected from a lot and permissible number of non-conforming "Vest"

Number of Vests in the Lot	Physical Characteristics		Other Requirements- Number of vests to be tested
	No. of "Vest" to be Inspected	Permissible number of non-conforming Vests	
(1)	(2)	(3)	(4)
Up to 300	13	1	3
301 – 500	20	2	5
501-1000	32	3	5
1001 and above	50	5	8

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

7.3 **Lot:** For the purpose of conformance inspection and test sampling, a lot is defined as all the completed "Vest" 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.

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

7.5 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 "Vest" shall be inspected according to the column 2 of table 4	Non-conforming "Vest" not to exceed the corresponding number given in col. 3 of table 4
Nature of fibre, Construction, Dimensional change, Scouring loss, pH value, whiteness index	All the "Vest" shall be inspected according to the column 4 of table 4	All the vests to satisfy the relevant requirements.
Colour fastness to light	One each for lot size up to 500 "Vest" and two if lot size is 501 and above	All the vests to satisfy the relevant requirements.

8.0 MARKING

A woven cloth label marked with the following information (Colour from the label shall not bleed on to the vest during storage or use) shall be fastened to each "Vest" at the inside of the neck portion (backside).

- a) Size in cm
- b) Name of manufacturer or trade mark, if any
- c) Any other information required by the buyer

9.0 PACKAGING & PACKING

9.1 Each "Vest" shall be placed in polyethylene bag. The vendor shall supply a sticker for each vest for inspection and signature. 50 such vest shall be placed in mill Grey board (3 ply corrugated fibre board telescopic Box) to form a unit pack and such four unit shall be packed in 7 ply corrugated fibre board slotted Box and further wrapped into water proof hessian/HDPE sheet (as per buyer requirement) and stitched with not less than 6 stitches/ 6 cm and strip bound. However, on each box the following shall be indicated:

- a) Name of material;
- b) Count of yarn and type (carded or combed);
- c) Designation of fabric;
- d) Vest style and size in cm;
- e) 100% cotton, if required by buyer;
- f) Quantity per box;
- g) Indication of the source of manufacturer;
- h) Any other information as required by the buyer

271

10. TERMINOLOGY

For the purpose of this standard the definitions as given in IS: 3596- latest version shall apply.

11. 0 REFERENCES

Sl. No.	SPEC. /TEST METHOD No.	DESCRIPTION
(a)	IS 667: 1981	Method for identification of textile fibres
(b)	IS 1390: 1983, RA 2004	Methods of testing of pH value of aqueous extract
(c)	IS 2454: 1985, RA 2006	Methods for determining of colour fastness of textile materials to artificial light (xenon lamp)
(d)	IS 6359:1971, RA 2004	Method for Conditioning of Textiles
(e)	IS 14759 : 2000,	Textiles-Fabric, cotton, rib-knitted-specification
(f)	AATCC Test method 110 : 2005	Whiteness of textiles index
(g)	IS:10789:1983	Classification and terminology of stitch types used in seams
(h)	IS: 11161:1985	Textiles: seam types-Classification and terminology
(i)	IS: 9543: 1980	Spun polyester sewing threads
(j)	IS: 834: 1993	Textiles-Ring spun grey cotton yarn for hosiery-Specification

ANNEX A

A-1 Conditioning of test specimens and atmospheric conditions for testing:

The test specimen shall be tested in prevailing atmospheric conditions. In case of dispute, the sample shall be conditioned and tested in the standard atmosphere as given in IS 6359.

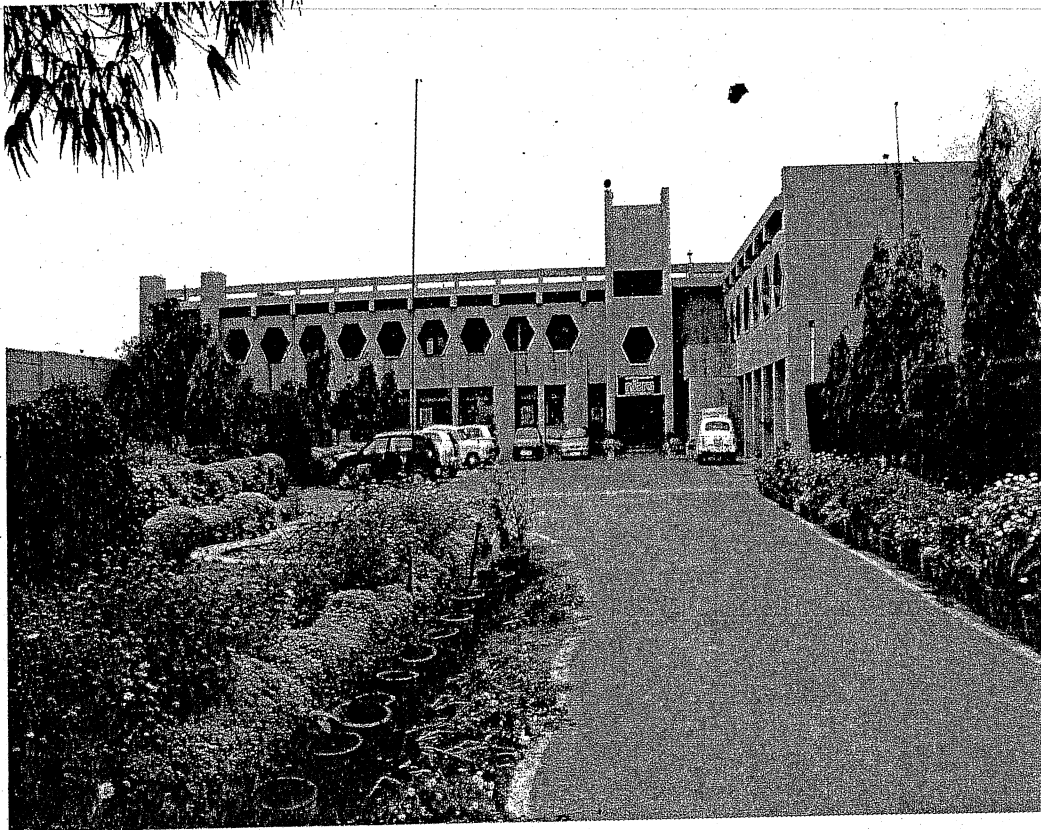
A-2 Dimensions:

Take each vest constituting the test specimen. Lay it flat on a table. Remove by hand all crease and wrinkles without distorting the specimen. Measure nearest to 0.5 cm, the dimensions given in Table-2.

A-3 Measurement of Round Neck Opening:

Lay down a vest flat on a table. Remove all creases and wrinkles without distorting the specimen. Place a non-extensible thread along the periphery of the neck opening starting from the place where the neck label has been fastened. Now, measure the length of the thread that the passed around the neck opening. Measure the dimension nearest of 0.5 cm.

СЕРТИФИКАТ



NORTHERN INDIA TEXTILE RESEARCH ASSOCIATION
Sector-23, Raj Nagar, Ghaziabad (U.P.)
Email: mail@nitratextile.org Fax: 0120-2783596