

No. U.II-98(Spec)/2013-14-Prov (Track-Suit) 1343

भारत सरकार/Government of India

गृह मंत्रालय/Ministry of Home Affairs

पुलिस आधुनिकीकरण प्रभाग /Police Modernization Division

संभरण-I डेस्क /Prov.I Desk

Jaisalmer House, 26 Man Singh Road,
New Delhi, the 3rd July, 2015

To,

The DsG: AR (through LOAR), BSF, CISF, CRPF, ITBP, SSB, NSG & BPR&D.

Subject: QRs/Specification of Track Suit with detachable hood for all CAPFs.

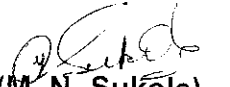
Sir,

The undersigned is directed to refer to the subject mentioned above and to say that the QRs/Specifications in respect of Track suit with detachable hood as per Annex-I have been approved by the competent authority in MHA.

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

3. Concerned CAPF will be accountable for correctness of the QRs/Specifications of Track suit with detachable hood.

Yours faithfully,

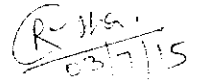

(M. N. Sukole)

Under Secretary to the Govt. of India

Encl: As above.

Copy forwarded for necessary action to:

✓ SO (IT), MHA - With the request to host the QRs/Specifications of Track suit with detachable hood on official website of MHA (under the page of Organizational Set up, Police Modernization Division-Clothing items).


03/07/15

(Ritesh Kumar)
Section Officer (Prov-II)

Copy to. Director (Procurement), MHA.

QRs/ Specification
of
“Track Suit with Detachable Hood”

1.0 SCOPE

- 1.1 The specification prescribes the requirement of "Track Suit".
- 1.2 This specification does not specify the general appearance, luster, feel, type of finish of "Track suit".

2.0 MATERIAL AND MANUFACTURE

- 2.1 The design and shape of the "Track suit" shall be as per Fig. 1 to 10. Wherever tolerance in dimensions is not given following tolerance shall be applicable:
 - i) Dimensions upto 25 Centimeter : ± 0.25 Centimeter
 - ii) Dimensions from 26 Centimeter up to 50 Centimeter : ± 0.50 Centimeter
 - iii) Dimensions from 51 Centimeter up to 100 Centimeter : ± 1.00 Centimeter

- iv) Dimensions from 101 Centimeter and above up to 150 Centimeter

- 2.2 "Track suit" shall have following three main parts:

- i) Upper (Jacket)
- ii) Hood
- iii) Lower (Trouser)

The main components used to manufacture "Track Suit" are given in Table-1

01 May 2015

Table 1: Components used in manufacture of "Track Suit"

| Component No. | Name of the component | Description |
|---------------|--|---|
| 1 | Outer shell fabric for Upper & Lower | <ol style="list-style-type: none"> 1. Polyester multifilament yarn in warp and cotton yarn in weft shall be used. 2. For guidance i) warp count : 76 Denier (multifilament), ii) weft count: 76 Denier (multifilament) 3. Ends/dm : 600 Min., Picks/dm: 600 Min 4. Weave: As given in the Annexure A 5. The fabric shall be 'Heat set' and fully shrunk. |
| 2 | Lining fabric (Woven) | <ol style="list-style-type: none"> 1. Polyester multifilament yarn shall be used 2. For guidance i) warp count: 60 Denier ii) weft count: 66 Denier 3. Weave: plain 1 up 1 down 4. Ends/dm : 100 Min. Picks/dm: 70 Min 5. The fabric shall be 'Heat set' and fully shrunk. |
| 3 | Lining fabric (Mesh) | <ol style="list-style-type: none"> 1. Polyester multifilament yarn shall be used 2. Number of mesh/sq. cm: 100 ± 2 3. Shape of Mesh: Square 4. Mass: 60 ± 2 g/m² 5. The fabric shall be 'Heat set' and fully shrunk. |
| 4 | Slide fastener 70 ± 2 cm length for outer jacket (Outer) | <ol style="list-style-type: none"> 1. Comply with the acceptance criteria specified in IS 14151: 2002 (latest version) 2. Designation: Medium 3. Type: One way open end type C slide fastener 4. Colour: Matching with the outer shell fabric 5. The vendor shall provide at least 10 slide fastener extra for testing purpose, used in the manufacturing of track suit along with track suit. |

01 May 2015

| | | |
|---|--|--|
| 5 | Slide fastener 16±1 cm length for outer jacket (Pocket) | <p>1. Comply with the acceptance criteria specified in S 14181: 2002 (latest version)</p> <p>2. Designation: Medium</p> <p>3. Type: One way open end type C slide fastener.</p> <p>4. Colour: Matching with the outer shell fabric</p> <p>5. The vendor shall provide at least 10 slide fastener extra for testing purpose, used in the manufacturing of track suit along with track suit.</p> |
| 6 | Elastic draw cord with lock for upper jacket | <p>Elastic Draw Cord:</p> <p>1. For guidance cord made out of rubber strips in a core and polyester fibre in the sheath may be used</p> <p>2. Length of the cord = 150 cm (Min) and diameter = 3mm</p> <p>3. Black colour</p> <p>Draw Cord Lock:</p> <p>1. Made out of Nylon</p> <p>2. For dimensions refer Fig 1(a) and 3</p> |
| | Draw cord for Lower | <p>Elastic Draw Cord:</p> <p>1. For guidance Nylon filament yarn of 700 Denier (3 ply) may be used</p> <p>2. Length of the cord = 130cm (Min) and diameter = 4mm</p> <p>3. Colour: Matching with outer fabric</p> |
| 8 | Draw cord for Hood | <p>1. For guidance Nylon filament yarn of 700 Denier (3 ply) may be used</p> <p>2. Length of the cord = 120cm (Min) and diameter = 4mm</p> <p>3. Colour: Matching with outer fabric</p> |
| 9 | Plastic Snap Fastener (To attach hood with the inner side of the Upper Jacket) | <p>1. Snap fastener (Male):</p> <ul style="list-style-type: none"> (i) Male part shall attach to the hood (ii) Diameter: 12±1 mm (iii) Colour: White <p>2. Snap fastener (Female)</p> <p>Female part shall attach to the inner side of the upper collar</p> <p>3. Refer Fig 1(b) for the details of the fastener</p> |

| | | | referred for more clarification) |
|----|----------------------|---|---|
| 10 | Elastic Tape (25 mm) | 1 | Elastic tape of 25±2 mm wide shall be used as a Ankle band |
| | | 2 | The length of the elastic tape shall be taken as per the size of the track suit. It should not be too tight or too loose to the wearer. |
| | | 3 | Comply with the acceptance criteria specified in IS 9683: 1980 (latest version). The vendor should provide at least 10 meter of extra tape used in the manufacturing of track suit along with track suit. |
| 11 | Elastic Tape (40 mm) | 1 | Elastic tape of 40±2 mm wide shall be used as a waist band of lower (Trousers) |
| | | 2 | The length of the elastic tape shall be taken as per the size of the track suit. It should not be too tight or too loose to the wearer. |
| | | 3 | Comply with the acceptance criteria specified in IS 9683: 1980 (latest version). The vendor should provide at least 10 meter of extra tape used in the manufacturing of track suit along with track suit. |
| 12 | Sewing Thread | 1 | Polyester spun sewing thread of 50s/3 may be used |
| | | 2 | It should match with colour of outer shell fabric. |
| | | 3 | The colour of the sewing thread should not bleed during washing. The colour fastness to washing shall be minimum 4 when test as per IS:ISO 105 C10 A-1) |
| | | 4 | The vendor shall provide at least 60 gram spool of sewing thread, extra for testing purpose, used in the manufacturing of track suit along with track suit. |

01 May 2015

| | | | |
|----|-------------------------|---|--|
| 13 | Embroidery thread | 1 | Embroidery thread shall be used to make LOGO |
| | | 2 | If the embroidery thread is coloured. The colour fastness to washing shall be minimum 4 when test as per IS/ISO 105 C10 A(1) |
| | | 3 | Colour fastness to Light shall be minimum 4 when tested in accordance to IS 2454 |
| | | 4 | The vendor shall provide at least 50 gram spool of embroidery thread extra for testing purpose, used in the manufacturing of track suit along with track suit. |
| 14 | 10±1 mm polyester Tape | 1 | 100% Polyester |
| | | 2 | Colour shall visually match with the colour of Yoke fabric |
| 15 | Polyester corded piping | 1 | 100% Polyester |
| | | 2 | Colour shall visually match with the colour of Yoke fabric |

2.3 Upper (Jacket) and Lower (Trousers): The "Upper" and "Lower" part of "Track Suit" shall be made using three types of fabrics - Component-1, Component-2 and Component-3. The Component-1 is outer shell fabric. Component-2 (Woven) and Component-3 (Mesh) are lining fabrics. For making Track Suit, two layers of fabrics Component-1 and lining fabric (Component-2 or Component-3) shall be used as per the requirement of the Track Suit (Fig 1a, 1b, 1c and 1d). The torso (trunk) of the "Upper" of Track Suit shall be made using component-1(Outer shell), Component-2 and Component-3. Sleeves shall have two layers of Component-1 and component -2 (as lining). The sleeve shall be made using a centre panel, stitched with front and back of the sleeve of Component-1. Centre panel is too stitched with two rows of equidistance 10 mm flat 100% polyester tape (Component-14) and finished with polyester corded piping (Component-15). The polyester tape (Component-14) shall be stitched using chain stitch. For more clarification, the sample held in the custody of the tendering agency may be referred (also see Fig 1a and 1b). The colour of the tape and piping shall be similar to the colour of the fabric used in the yoke and collar fabric.

The assembling of "Upper" of track Suit using different components are shown in the Fig 2, 3, 4 and 5. Yoke fabric used in the upper of "Track Suit" shall have same specification as of fabric used in the outer shell but different in colour, as given in the Clause 6.2.1.

The "Track Suit" shall be provided with two side pockets finished with flap and corded piping. The colour of the piping shall match with the yoke fabric used in the "Upper". The location and dimensions of the pockets can be seen in the Fig. 2. The opening and closing of the "Upper" of "Track Suit" shall be carried out using Slide fastener (Component-4). The way to attach slide fastener may be seen in the sample held in the custody of Tendering authority. Slide fastener shall be stitched to the center front opening of the

01 May 2015

"Upper" of "Track Suit" using lock-stitch. For this purpose polyester sewing thread (Component-12) shall be used.

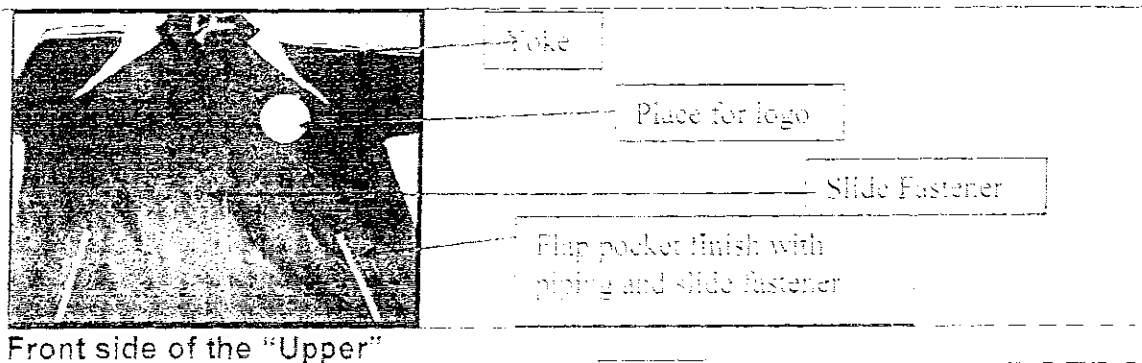
Bottom hem of "Upper" is finished with 1/2 inch fold with elastic draw string along with one-hole cord stopper. The elastic draw cord shall enable to tighten or loosen the "Upper". For further clarification Fig. 2 and 5 may be referred. The sleeve opening of upper of "Track Suit" shall be finished with 25 mm elastic tape (Component-10) as shown in the Fig.2.

The "Lower" i.e. trouser of the "Track Suit" shall be made using two layers (Component-1, Component-2 or Component-3) of fabrics as shown in the Fig. 1C and 1D. The bottom of each trouser leg shall be provided 1 inch fold and finished with lock stitching. The waistband shall be finished with elastic tape (Component-11) along with draw cord (Component-7) using chain stitch. The "Lower" of the "Track Suit" shall be provided with two side pockets and one back pocket (Figs. 1d, 6 and 7). Back pocket flap shall be finished with piping to cover the same fastener which is used for the opening and closing of the pocket.

The trouser shall also be made similar to sleeve using a centre panel, stitched with front leg and back leg of the trouser of Component-1. Centre panel is top stitched with two rows of equidistance 10 mm flat 100% polyester tape (Component-14) and finished with polyester coded piping (Component-15) as shown in the Fig. 3 and Fig.8. The colour of the tape and piping shall match with the fabric used in the yoke and the sleeve of the "Upper". The polyester tape (Component-14) shall be stitched using chain stitch. The shape dimensions and way of assembling is shown in the Figs. 6, 7, 8 and 9. The reverse side of the trouser shall be provided with component-2 and 3 (lining fabrics) stitched using lock stitch and finished with overlock. The way of assembling of mesh fabric is shown in Fig.1d and

1.4 Hood: It shall be made out of outer shell fabric (Component-1) and mesh fabric (Component-3). The snap fasteners (Component-8) shall be provided to attach the hood with upper of "Track Suit". At the front opening of the hood 1/2 inch casing shall be made by the folding of the fabric to pass the draw string to tighten or loosen the Hood. Figures-1b and 10 may be referred for further details.

1.5 LOGO: The Logo shall be embroidered on the outer shell of wearer left side of outer jacket (Upper) as per the Figures 1a and 2. The embroidery shall be done on Front panel of outer shell fabric (Component-1) before assembling the track suit upper as per the given dimensions. The colour of logo is given in the Clause 6.2.1. The type of the logos of individual paramilitary forces is given in the Clause 6.2.1.1. For more clarification of logo, tendering agency may be referred.



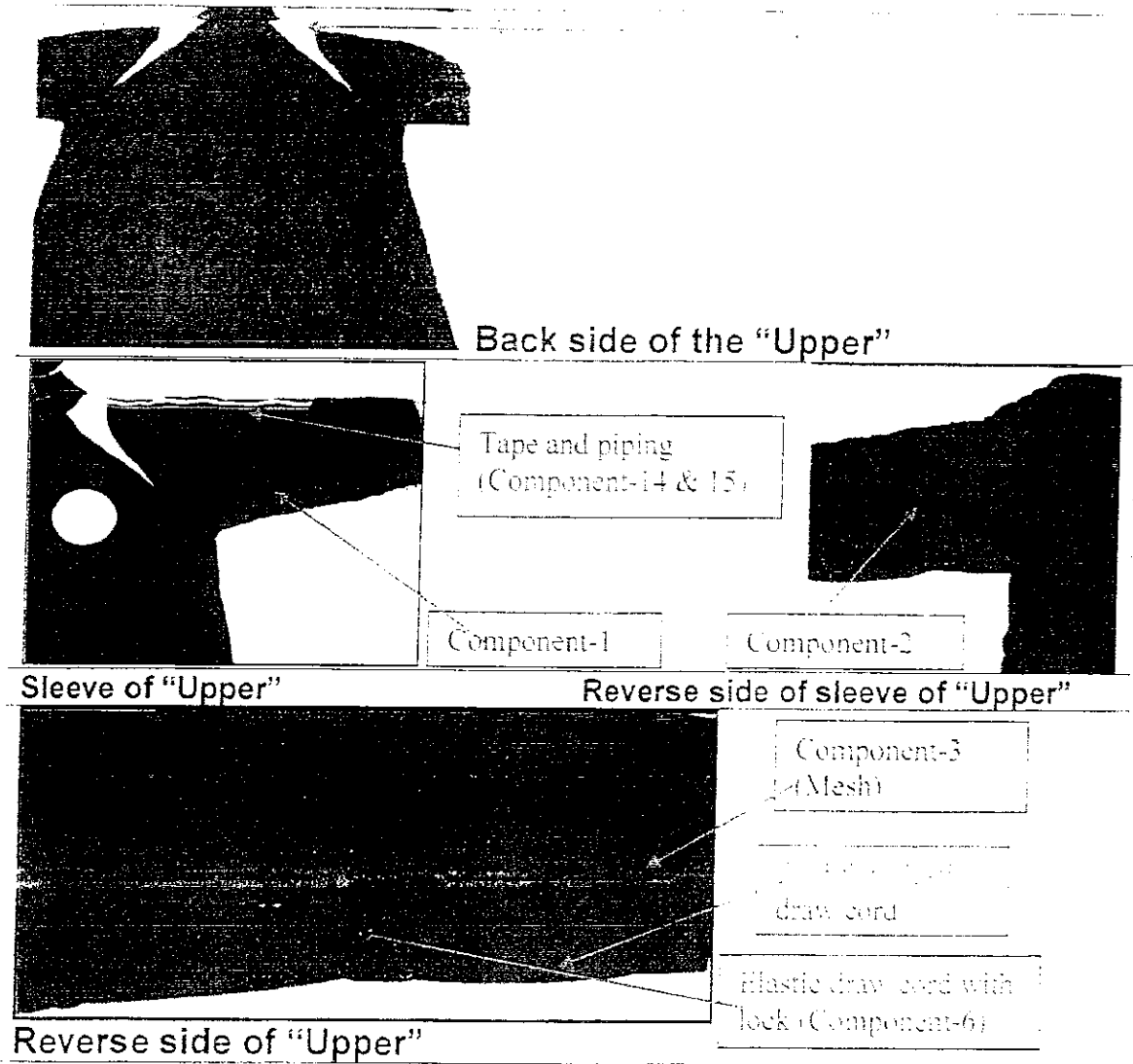
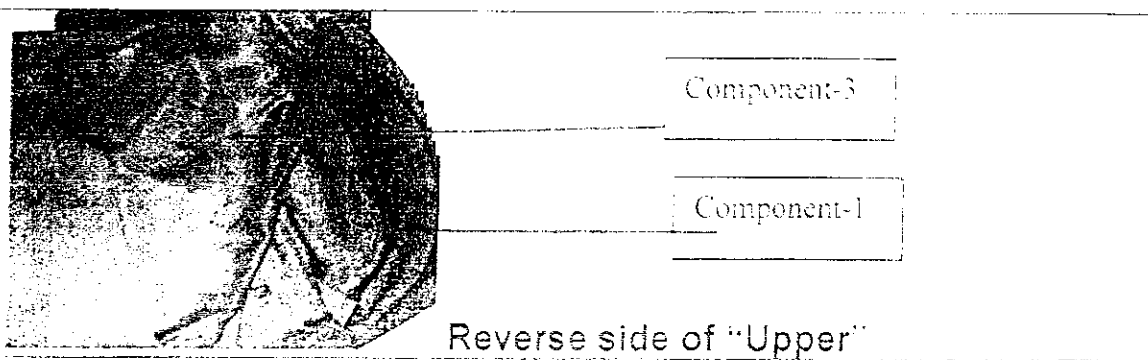


Fig. 1 (a) Track Suit

Note: The colours shown in the figures are not actual.



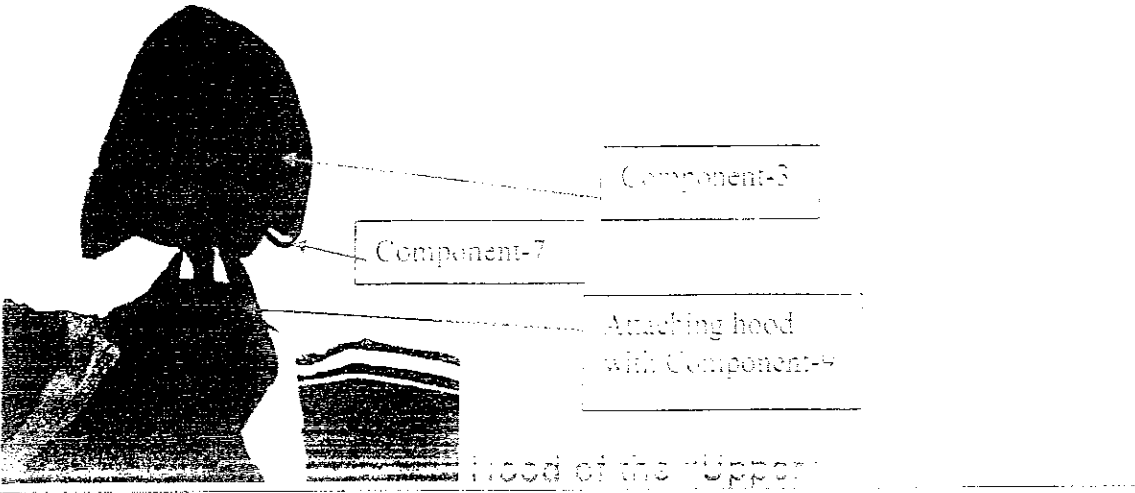
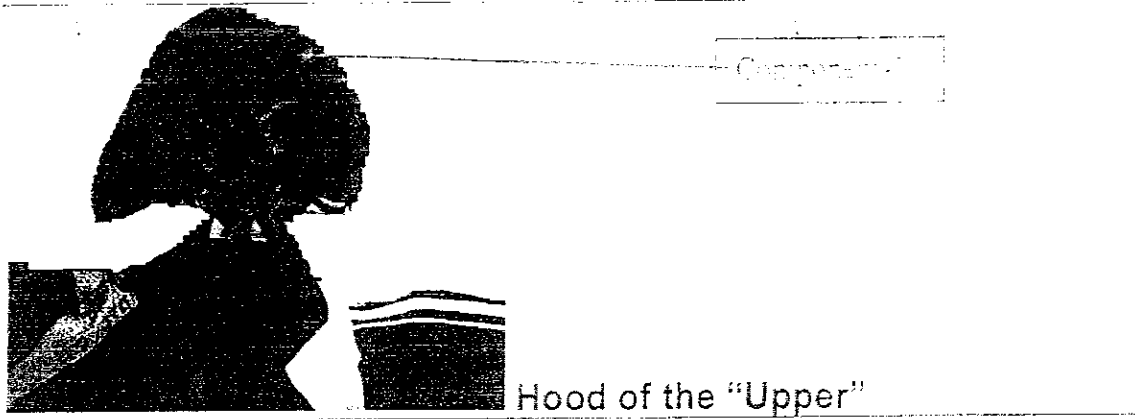
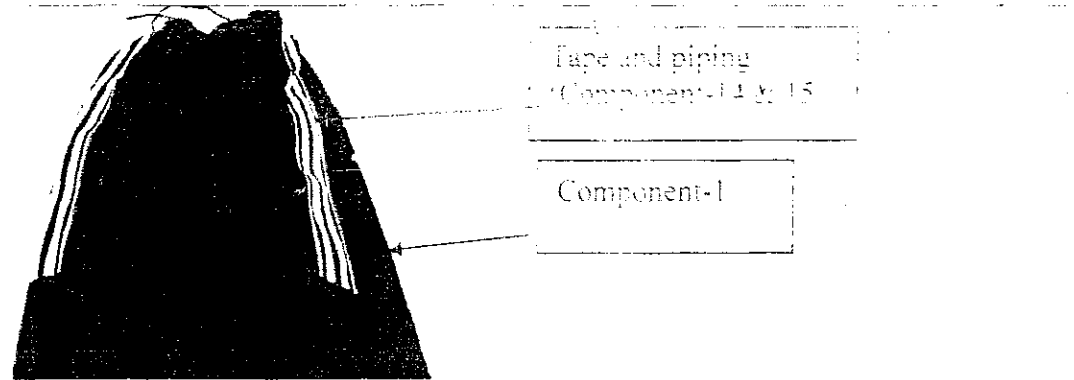
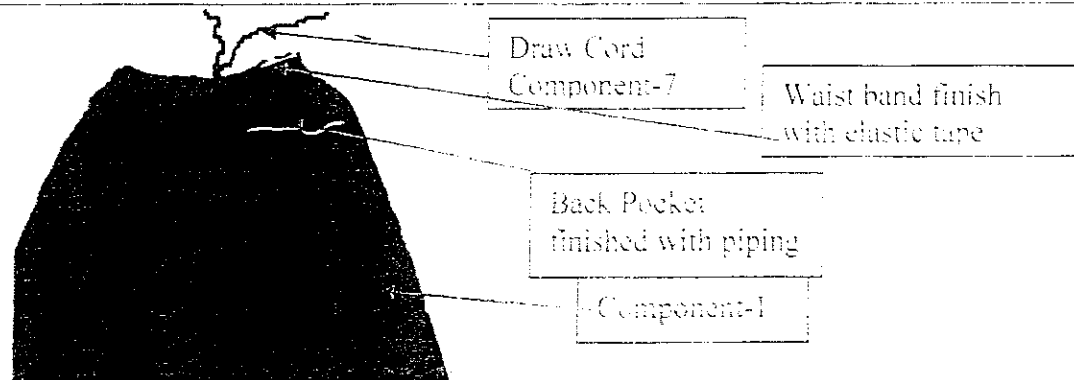


Fig. 1 (b) Track Suit

Note: The colours shown in the figures are not actual.



Front side of the "Lower"



Back side of the "Lower" Fig. 1 (c) Track Suit

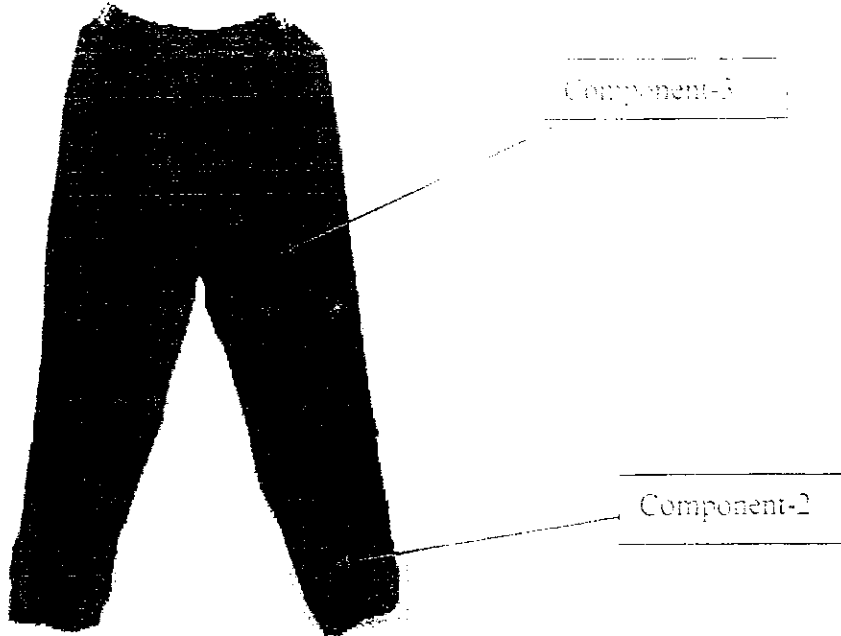


Fig. 1 (d) Reverse side of the "Lower Track Suit

Note: The colours shown in the figures are not actual.

01 May | 2015

3.0 STITCHING

Lock stitch having at least 4 stitches per cm shall be employed for assembling the "Track Suit". The stitching shall be done with even tension and all loose ends shall be securely fastened off. Sewing thread (Component-12) colour shall match with the outer jacket colour of the "Track Suit".

4.0 WORKMANSHIP AND FINISH

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

5.0 SEALED SAMPLE

In order to illustrate or specify the indeterminable characteristics such as general appearance, luster and feel of the "Track Suit", a sample has been prepared upon and sealed. The supply shall be conforming 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

6.1 Dimensions

The dimensions of "Track Suit" when measured as per method described in Annex B shall conform to the requirements given in Tables 2A to 2G along with the appropriate figures.

01 May 2015

Table:2A Measurement chart for TRACK SUIT -UPPER JACKET (front)
Figure-2 (All measurements are in Centimeter)

| S. No. | Measuring point | Notation as given in Fig. 2 | Size | | | | |
|--------|-------------------------------------|-----------------------------|--------|--------|---------|----------|-----------|
| | | | 38 (M) | 40 (L) | 42 (XL) | 44 (XXL) | 46 (XXXL) |
| 1. | Length (from HPS to hem) | A | 67.5 | 70 | 72.5 | 75 | 77.5 |
| 2. | Chest width (1" below armhole) | B | 56 | 58.75 | 61 | 63.75 | 66 |
| 3. | Bottom width | C | 56 | 58.75 | 61 | 63.75 | 66 |
| 4. | Side seam from arm hole to bottom | D | 42.5 | 44 | 45 | 46.5 | 48 |
| 5. | Sleeve length from the LSP | E | 67.5 | 70 | 72.5 | 75 | 77.5 |
| 6. | Biceps | F | 25 | 26 | 27.5 | 28.5 | 29.5 |
| 7. | Armhole | G | 28.5 | 31 | 34.5 | 36 | 38.5 |
| 8. | Shoulder yoke length towards CF | H | 20 | 21 | 22 | 23 | 24 |
| 9. | Shoulder yoke length towards sleeve | I | 19.5 | 20.5 | 21.5 | 22.5 | 23.5 |
| 10. | Sleeve piping length (Front) | J | 33 | 34 | 35 | 36 | 37 |
| 11. | Sleeve tape length | K | 34 | 35 | 36 | 37 | 38 |

Note: HPS-Highest Point of Shoulder, LPS-Lowest Point of Shoulder

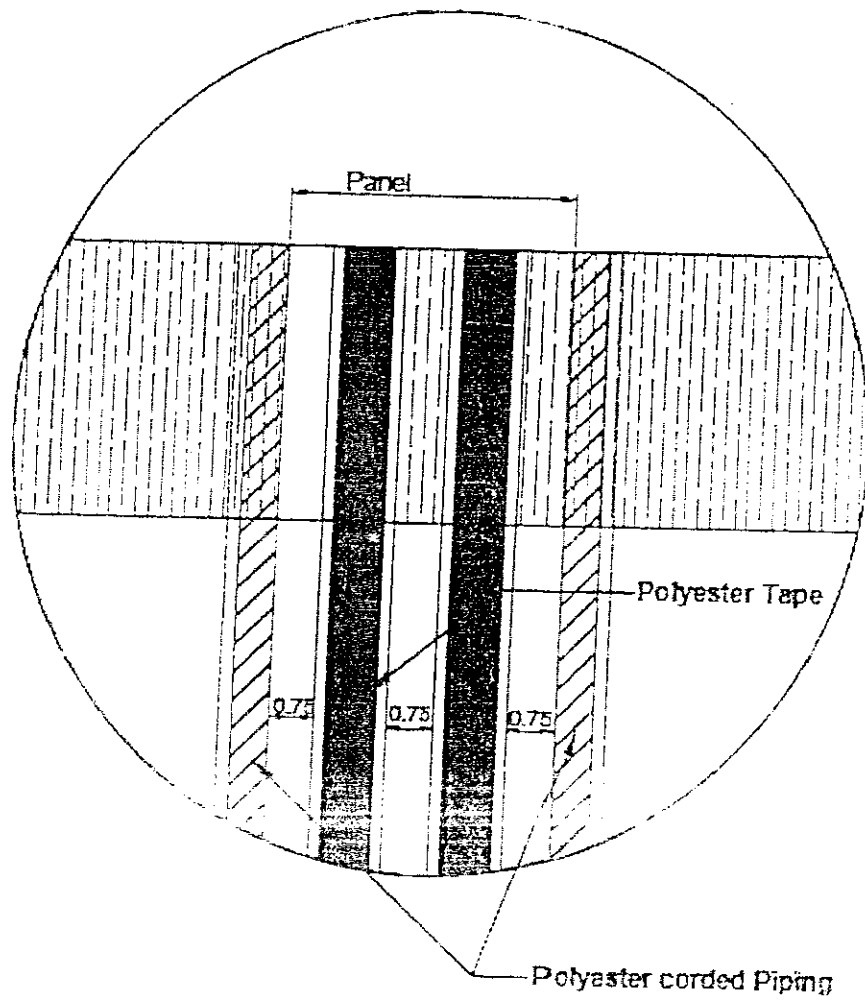


Fig 3: Assembling of Tape and Piping in the "Track suit"

01 May 2015

Table 2 B Measurement chart for TRACK SUIT -UPPER JACKET-BACK
with Figure-4
(All measurements are in Centimeter)

| S. No | Measuring point | Notation as given in Fig. 1 | Size | | | | |
|-------|--|-----------------------------|--------|--------|---------|----------|-----------|
| | | | 38 (M) | 40 (L) | 42 (XL) | 44 (XXL) | 46 (XXXL) |
| 1. | Length (from Highest shoulder point to hem) | A | 67.5 | 70 | 72.5 | 75 | 77.5 |
| 2. | Bottom width | B | 57.5 | 60 | 62.5 | 65 | 67.5 |
| 3. | Shoulder yoke length towards CB | C | 23.5 | 24.5 | 25.5 | 26.5 | 27.5 |
| 4. | Shoulder yoke length towards sleeve | D | 20 | 21 | 22 | 23 | 24 |
| 5. | Sleeve piping length (back) | E | 36 | 37 | 38 | 39 | 40 |
| 6. | Sleeve tape length | F | 35 | 36 | 37 | 38 | 39 |

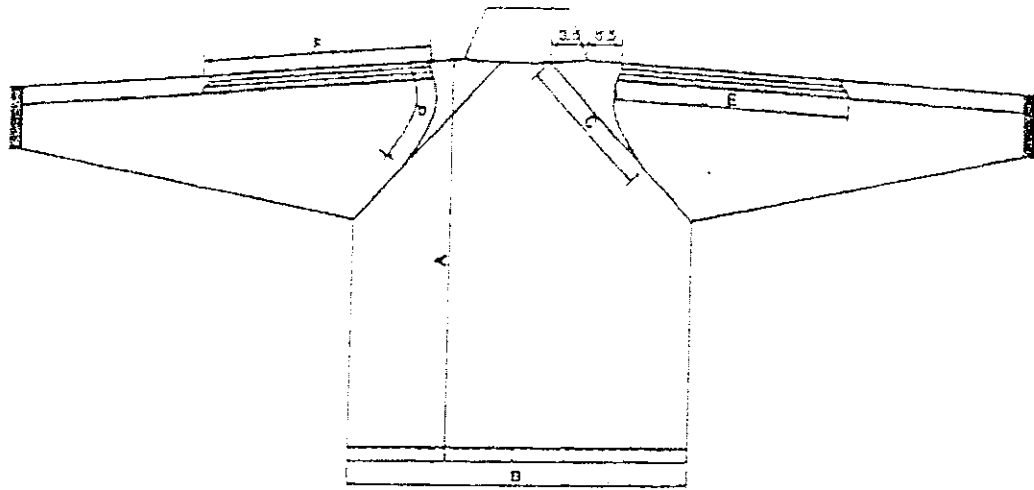


Fig 4: Upper back of the "Track suit"

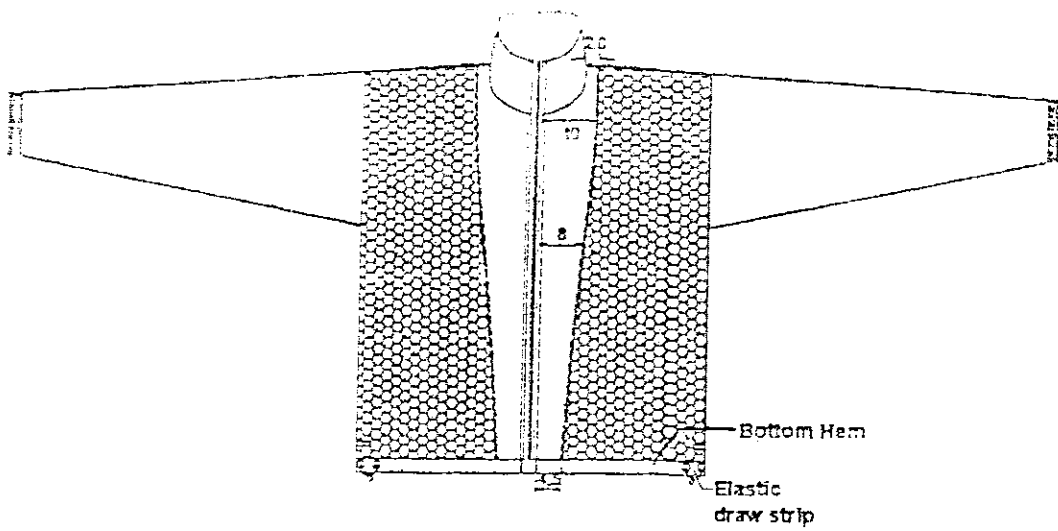


Figure-5 Reverse Side of "Track Suit" (All measurements are in cm)

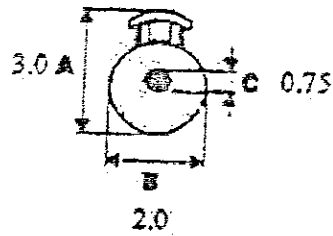


Figure 5A Cord lock (All measurements are in Centimeter)

Table 2 C: Measurement chart for TRACK SUIT –LOWER (Front view) with Figure-6 (All measurements are in Centimeter)

| S. No | Measuring point | Notation as given in fig | Size(inches) | | | | |
|-------|---|--------------------------|--------------|--------|---------|----------|-----------|
| | | | 38 (M) | 40 (L) | 42 (XL) | 44 (XXL) | 46 (XXXL) |
| 1. | Length | A | 40.5 | 43.5 | 46 | 48.5 | 51 |
| 2. | Waist | B | 52.5 | 57.5 | 62.5 | 67.5 | 72.5 |
| 3. | Front hip width (7.5" below waist level) | C | 24 | 25 | 26 | 27 | 28.5 |
| 4. | Front rise | D | 26.75 | 31.25 | 33.75 | 36.25 | 38.75 |
| 5. | Front Thigh width (1" below leg base) | E | 26.25 | 28.75 | 31.25 | 33.75 | 36.25 |
| 6. | Knee level | F | 60 | 62.5 | 65 | 67.5 | 70 |
| 7. | Front Knee width | G | 20 | 22.5 | 25 | 27.5 | 30 |

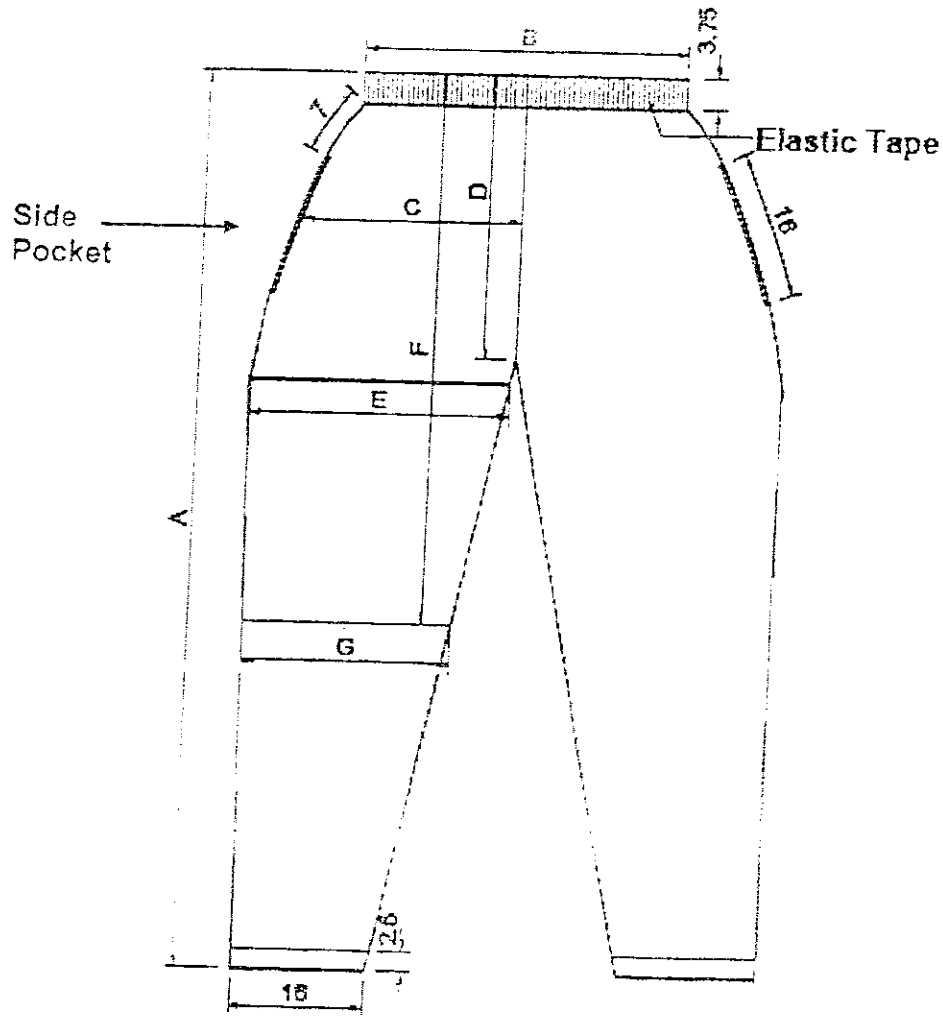


Fig 6: Lower front view of "Track suit"

Table 2 D: Measurement chart for TRACK SUIT –LOWER (Back view) with Figure-7 (All measurements are in Centimeter)

| S. No | Measuring point | Notation as given in fig | Size(inches) | | | | |
|-------|--------------------------------------|--------------------------|--------------|--------|---------|----------|-----------|
| | | | 38 (M) | 40 (L) | 42 (XL) | 44 (XXL) | 46 (XXXL) |
| 1. | Back hip width | H | 25 | 26.5 | 27.5 | 28.75 | 30 |
| 2. | Back rise | I | 35 | 37.5 | 40 | 42.5 | 45 |
| 3. | Back thigh width (1" below leg base) | J | 30 | 32.5 | 35 | 37.5 | 40 |
| 4. | Back Knee width | K | 22.5 | 25 | 27.5 | 30 | 32.5 |

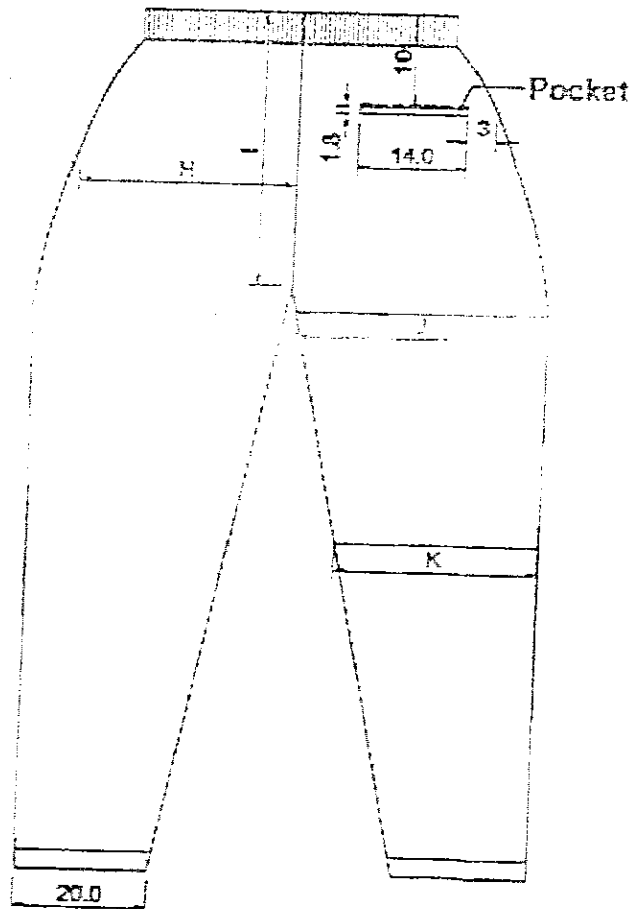


Fig 7: Lower back view of "Track suit"

01 May 2015

Table 2 E: Measurement chart for TRACK SUIT -LOWER (Side view) with Figure-8 (All measurements are in Centimeter)

| S. No | Measuring point | Notation as given in fig | Size(inches) | | | | |
|-------|----------------------------------|--------------------------|--------------|--------|---------|----------|-----------|
| | | | 38 (M) | 40 (L) | 42 (XL) | 44 (XXL) | 46 (XXXL) |
| 1. | Side panel length | A | 101 | 103.5 | 106 | 108. | 111 |
| 2. | Side piping length towards Front | B | 52 | 53 | 54 | 55 | 56 |
| 3. | Side piping length towards hip | C | 54 | 55 | 56 | 57 | 58 |

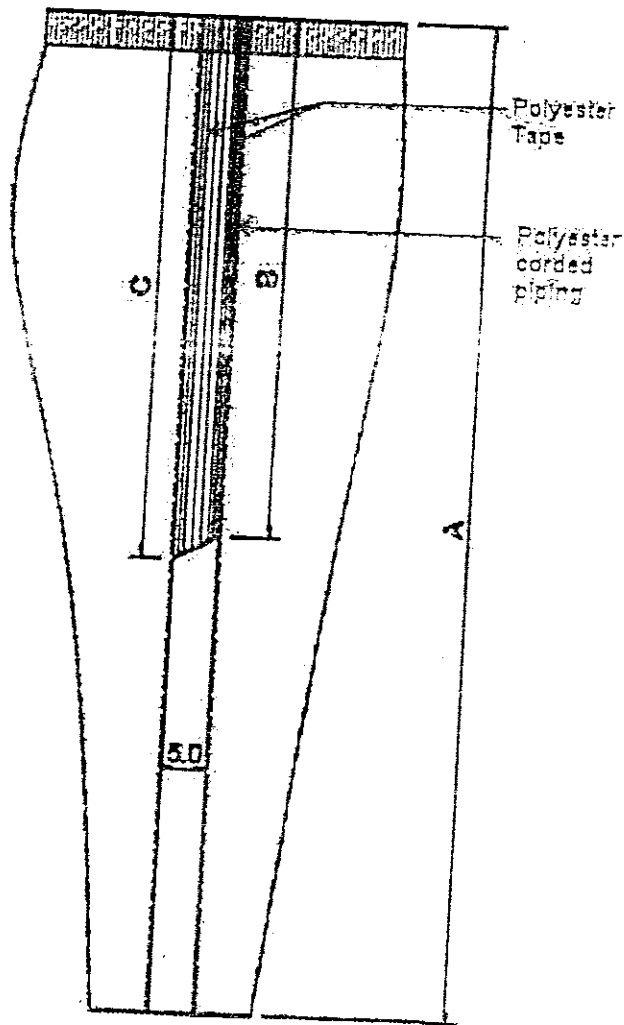


Fig 8: Side view of lower "Track suit"

01 May | 2015

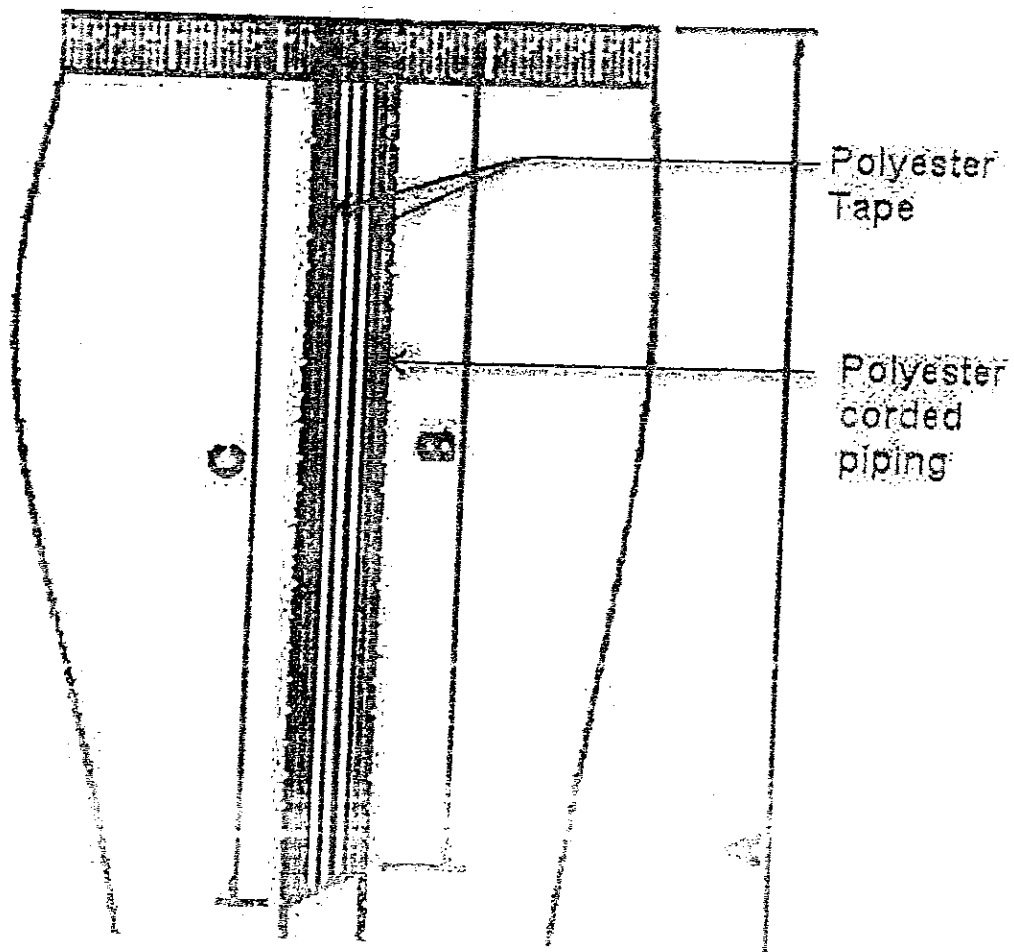


Fig 8 A: Enlarged view of lower "Track suit"

01 May 2015

Table 2 F Measurement chart for TRACK SUIT –LOWER (Inner view) with Figure-9 (All measurements are in Centimeter)

| S. No | Measuring point | Notation as given in fig | Size(inches) | | | | |
|-------|-------------------|--------------------------|--------------|--------|---------|----------|-----------|
| | | | 38 (M) | 40 (L) | 42 (XL) | 44 (XXL) | 46 (XXXL) |
| 1. | Net lining length | A | 72.5 | 75 | 77.5 | 80 | 82.5 |

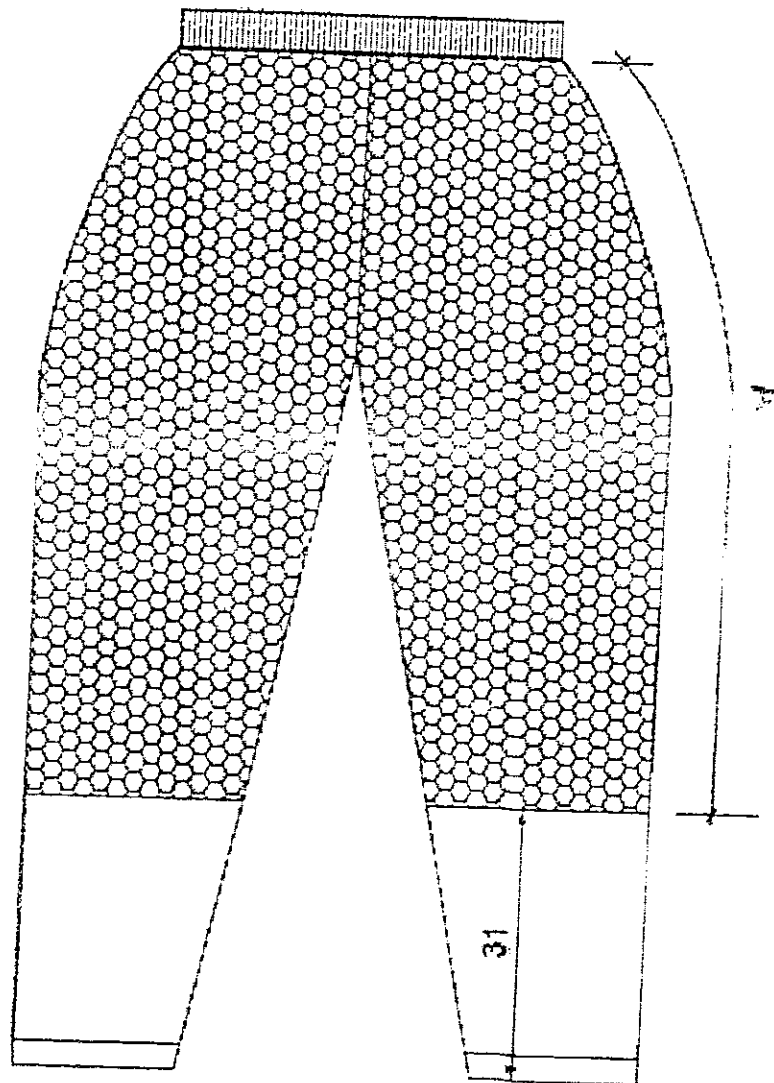


Fig 9: Inner view of Lower "Track suit"

01 May 2015

Table 2 G: Measurement chart for TRACK SUIT -HOOD (SIDE view)
Figure-10 (All measurements are in Centimeter)

| S. No. | Measuring point | Notation as given in | Size | | | | |
|--------|-----------------|----------------------|--------|--------|---------|----------|-----------|
| | | | 38 (M) | 40 (L) | 42 (XL) | 44 (XXL) | 46 (XXXL) |
| 1. | Hood length | A | 39 | 40 | 40 | 40.5 | 40.5 |
| 2. | Front opening | B | 29.5 | 30 | 30.5 | 31 | 31 |
| 3. | Hood width | C | 24 | 24 | 24.5 | 24.5 | 24.5 |

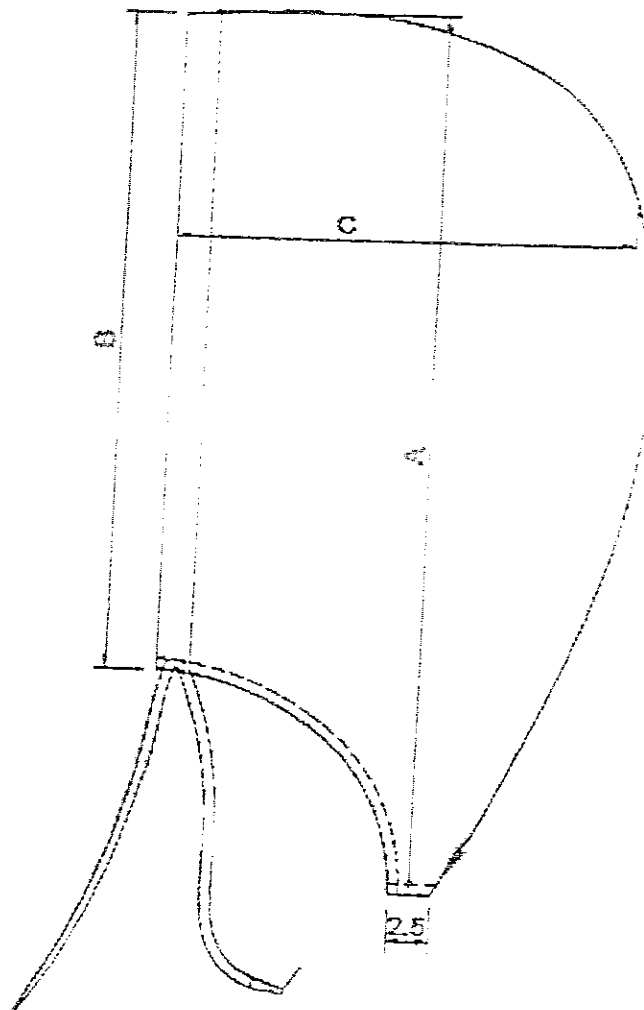


Fig 10: Hood of "Track suit"

6.2 Other Requirements:








6.2.1 The colour of the Component 1 (Outer Shell Fabric), Yoke fabric and Logo shall conform to the Tables 3 given for individual paramilitary force.

Table 3 Colours of the track suits

| Outer shell fabric | Colours | | Tables for colour specification | CAPF's |
|--------------------|------------------|------------------|---------------------------------|----------------|
| | Yoke fabric | Logo | | |
| Blue | White | White | Table-5A & 5B | CRPF |
| Light Blue | White | White | Table-6A & 6B | BSF |
| Olive Green | Golden Yellow | Golden Yellow | Table-7A & 7B | ITBP |
| Dark Green | | Black | Table-8A & 8B | Assam Rifle |
| | Yellow | Golden Yellow | Table-9A & 9B | NSG |
| Navy Blue | White | White | Table-10A & 10B | CISF |
| | White | White | Table-11A & 11B | SSB |

01 May 2015

6.2. The type of logo of individual forces is given below. For actual logo, vendor shall contact to the individual forces.

| Name of the paramilitary force | Logo* |
|--|---|
| Central Reserve Police Force (CRPF) |  |
| Border Security Force (BSF) |  |
| Indo-Tibetan Border Police (ITBP) |  |
| Assam Rifles |  |
| National Security Guard (NSG) |  |
| Central Industrial Security Force (CISF) |  |
| Sashastra Seema Bal (SSB) |  |

*For actual logo type, design and colour individual paramilitary force shall be referred.

6.2.2 All the components used in the "Track Suit" shall meet the requirements as given in Table 1. For Component-1, Component-2 and Component-3 of "Track Suit", Table 4 to 11 shall be referred for the confirmation.

Table 4: Requirements of Component-1, Component-2, and Component-3 and Yoke fabric of "Track Suit"

| Sl. No. | Characteristics | Requirements | Test Method |
|----------------------------------|--|----------------------------|---|
| Outer shell fabric (Component-1) | | | |
| 1 | Identification of fibre | Polyester | IS 667:1981 |
| 2 | Weave | Annex- B | Visual |
| 3 | End/dm, Minimum | 500 | IS 1963:1981 |
| 4 | Picks/dm, Minimum | 500 | IS 1963:1981 |
| 5 | Mass, g/m ² | 120±5% | IS 1964 : 1970 |
| 6 | Breaking strength, Newton (Minimum) -Warp-wise -Weft-wise | 800 1000 | IS: 1969: 1985 (5 X 20 cm specimen size) |
| 7 | Tearing Strength, Newton (Minimum) - Warp-wise - Weft-wise | 20 20 | IS 6439: 1993 |
| 8 | Abrasion Resistance (Martindale) -After 1000 cycles | No thread breakage | IS: 12673 : 1989 |
| 9 | Colour fastness to washing - Change in colour - Staining on adjacent fabric | 4 or better 4 or better | IS/ISO 105 - C10 C(3): 2006 |
| 10 | Colour fastness to perspiration - Change in colour - Staining on adjacent fabric | 4 or better 4 or better | IS 971:1983 |
| 11 | Colour fastness to rubbing - Dry - Wet | 4 or better 4 or better | IS 766:1988 |
| 12 | Colour fastness to light | 5 or better | IS 2454:1985 |
| 13 | Dimensional Change due to relaxation, both directions, percentage, maximum | 1.0 | IS 2977: 1989 |
| 14 | pH value of aqueous extract | 6.0-8.0 | IS 1390: 1983 (Cold method) |

01 May 2015

| Sl. No. | Characteristics | Requirements | Test Method |
|-----------------------------|---|---|--------------------------------|
| 15 | Colour specification | ≤ 2.0 | Tables 5 to 11 |
| Lining fabric (Component-2) | | | |
| 16 | Nature of fibre/filament | Polyester | IS 667: 1981 |
| 17 | Weave | Plain-1 up 1 down | Visual |
| 18 | End/dm, Minimum | 425 | IS 1963:1981 |
| 19 | Picks/dm, Minimum | 280 | IS 1963:1981 |
| 20 | Mass, g/m ² | 55-65 | IS 1964: 1970 |
| 21 | Tearing Strength, Newton (Minimum) - Warp-wise - Weft-wise | 12 12 | IS 6489: 1993 |
| 22 | Abrasion Resistance (Martindale) -After 1,000 cycles | No thread breakage | IS: 12673 : 1989 |
| 23 | Colour fastness to washing - Change in colour - Staining on adjacent fabric | 4 or better 4 or better | IS/ISO 105 - C10 C(3): 2005 |
| 24 | Colour fastness to perspiration - Change in colour - Staining on adjacent fabric | 4 or better 4 or better | IS 871:1983 |
| 25 | Colour fastness to rubbing - Dry - Wet | 4 or better 4 or better | IS 765:1988 |
| 26 | Colour fastness to light | 5 or better | IS 2454:1985 |
| 27 | Dimensional Change due to relaxation, both directions, percentage, maximum | 1.0 | IS 2977: 1989 |
| 28 | pH value of aqueous extract | 6.0-8.0 | IS1390:1983 (Cold method) |
| 29 | Colour | Match with outer shell fabric (Component-1) | Visual |

01 May 2015

| Sl. No. | Characteristics | Requirements | Test Method |
|--|--|--|--|
| Lining fabric (Mesh) (Component-3) | | | |
| 30 | Nature of fibre/filament | Polyester | IS 667:1981 |
| 31 | Number of mesh /sq inch. Minimum | 120 | Visual using Pick glass |
| 32 | Mass, , g/m ² | 50-60 | IS 1964 : 1970 |
| 33 | Colour fastness to washing - Change in colour - Staining on adjacent fabric | 4 or better 4 or better | IS/ISO 105 - C10 C(3): 2006 |
| 34 | Colour fastness to perspiration - Change in colour - Staining on adjacent fabric | 4 or better 4 or better | IS 971:1983 |
| 35 | Colour fastness to rubbing - Dry - Wet | 4 or better 4 or better | IS 766:1988 |
| 36 | Colour fastness to light | 5 or better | IS 2454:1985 |
| 37 | Dimensional Change due to relaxation, both directions. Percentage maximum | 1.0 | IS 2977: 1989 |
| 38 | pH value of aqueous extract | 6.0-8.0 | IS1390:1983 (Cold method) |
| 39 | Colour | Match with outer shell fabric (Component-1) | Visual |
| Yoke fabric | | | |
| All the properties of the Yoke fabric shall be same as Component-1 except colour. Colour of the Yoke fabric shall be as specified individual tables. | | | |
| Logo | | | |
| 40 | Colour fastness to washing - Change in colour - Staining on adjacent fabric | 4 or better 4 or better | IS/ISO 105 - C10 C(3): 2006 (Specimen size may be adjusted as per the Logo size) |
| 41 | Colour fastness to light | 5 or better | IS 2454:1985 |

01 May | 2015

Table-5A : Specification of colour for outer shell fabric "Track Suit -CRPF (AATCC Test method 173 : 2009 & AATCC Evaluation Procedure 7 : 2009)

| | | | | |
|-------------------------------------|---|------------|--------|---------|
| Colour | : | Blue | | |
| System | : | CIE LCH | | |
| Illuminant Observer | : | D 65 | | |
| Standard Observer | : | 10 Degree | | |
| Tristimulus Values | : | X | Y | Z |
| | | 14.134 | 17.556 | 44.370 |
| LCH | : | L | C | H |
| | | 48.953 | 39.844 | 248.137 |
| CMC (1:1) | : | 2:1 | | |
| Colour difference, ΔE_{cmc} | : | ≤ 2.0 | | |

Interpretation of Results :

- i) If ΔE_{cmc} is less than or equal to 2, then sample is acceptable.
- ii) If ΔE_{cmc} is greater than 2, then sample is Unacceptable.

Note-1 : Absorbance/reflectance/transmittance are affected by surface characteristic features of the substrate. Therefore comparison should be made between samples of same type i.e., identical fabric construction parameters and filament/fibre composition.

Note-2 : Test should be carried out after proper conditioning as per AATCC 173 using Diffuse (sphere) geometry spectrophotometer.

01 May 2015

Table-5B : Specification of colour for Yoke attached with outer shell fabric
"Track Suit"-CRPF

(AATCC Test method 173 : 2009 & AATCC Evaluation Procedure 7 : 2009)

| | | | | |
|----------------------|---|-----------|--------|---------|
| Colour | : | White | | |
| Illuminant Observer | : | D 65 | | |
| Standard Observer | : | 10 Degree | | |
| Tristimulus Values | : | X | Y | Z |
| | | 78.502 | 81.980 | 103.353 |
| Whiteness Index(CIE) | : | 125±10 | | |

Note-1 : Absorbance/reflectance/ transmittance are affected by surface characteristic features of the substrate. Therefore comparison should be made between samples of same type i.e., identical fabric construction parameters and filament/ fibre composition.

Note-2 : Test should be carried out after proper conditioning as per AATCC 173 using Diffuse (sphere) geometry spectrophotometer.

01 May | 2015

Table-6A : Specification of colour for outer shell fabric "Track Suit"-BSF
(AATCC Test method 173 : 2009 & AATCC Evaluation Procedure 7 : 2009)

| | | | | |
|-------------------------------------|---|------------|-------|---------|
| Colour | : | Dark Blue | | |
| System | : | CIE LCH | | |
| Illuminant Observer | : | D 65 | | |
| Standard Observer | : | 10 Degree | | |
| Tristimulus Values | : | X | Y | Z |
| | | 2.804 | 2.964 | 4.545 |
| L C H | : | L | C | H |
| | | 19.899 | 7.909 | 289.213 |
| CMC (l:c) | : | 2:1 | | |
| Colour difference, ΔE_{cmc} | : | ≤ 2.0 | | |

Interpretation of Results :

- i) If ΔE_{cmc} is less than or equal to 2, then sample is acceptable.
- ii) If ΔE_{cmc} is greater than 2, then sample is unacceptable.

Note-1 : Absorbance/reflectance/ transmittance are affected by surface characteristic features of the substrate. Therefore comparison should be made between samples of same type i.e., identical fabric construction parameters and filament/ fibre composition.

Note-2 : Test should be carried out after proper conditioning as per AATCC 173 using Diffuse (sphere) geometry spectrophotometer.

174

01 May | 2015

Table-6B : Specification of colour for Yoke attached with outer shell fabric
"Track Suit"-BSF

(AATCC Test method 173 : 2009 & AATCC Evaluation Procedure 7 : 2009)

| | | | | |
|----------------------|---|-----------|--------|---------|
| Colour | : | White | | |
| Illuminant Observer | : | D 65 | | |
| Standard Observer | : | 10 Degree | | |
| Tristimulus Values | : | X | Y | Z |
| | | 78.502 | 81.980 | 103.353 |
| Whiteness Index(CIE) | : | 125.410 | | |

- Note-1 : Absorbance/reflectance/transmittance are affected by surface characteristic features of the substrate. Therefore comparison should be made between samples of same type i.e., identical fabric construction parameters and filament/ fibre composition.
- Note-2 : Test should be carried out after proper conditioning as per AATCC 173 using Diffuse (sphere) geometry spectrophotometer.

01 May 2015

Table-7A : Specification of colour for outer shell fabric "Track Suit"-ITBP
(AATCC Test method 173 : 2009 & AATCC Evaluation Procedure 7 : 2009)

| | | | | |
|-------------------------------------|---|-------------|-------|---------|
| Colour | : | Olive Green | | |
| System | : | CIE LCH | | |
| Illuminant Observer | : | D 65 | | |
| Standard Observer | : | 10 Degree | | |
| Tristimulus Values | : | X | Y | Z |
| | | 4.178 | 4.945 | 5.329 |
| LCH | : | L | C | H |
| | | 23.577 | 6.900 | 180.755 |
| CMC (l:c) | : | 2:1 | | |
| Colour difference, ΔE_{cmc} | : | ≤ 2.0 | | |

Interpretation of Results :

- i) If ΔE_{cmc} is less than or equal to 2, then sample is acceptable.
- ii) If ΔE_{cmc} is greater than 2, then sample is unacceptable.

Note-1 : Absorbance/reflectance/transmittance are affected by surface characteristic features of the substrate. Therefore comparison should be made between samples of same type i.e., identical fabric construction parameters and filament/fibre composition

Note-2 : Test should be carried out after proper conditioning as per AATCC 173 using Diffuse (sphere) geometry spectrophotometer.

01 May | 2015

Table-7B : Specification of colour for Yoke attached with outer shell fabric
"Track Suit"-ITBP

(AATCC Test method 173 : 2009 & AATCC Evaluation Procedure 7 : 2009)

| | | | | |
|-------------------------------------|---|---------------|--------|--------|
| Colour | : | Golden Yellow | | |
| System | : | CIE LCH | | |
| Illuminant Observer | : | D 65 | | |
| Standard Observer | : | 10 Degree | | |
| Tristimulus Values | : | X | Y | Z |
| | | 43.746 | 40.788 | 8.333 |
| LCH | : | L | C | H |
| | | 70.027 | 64.912 | 76.067 |
| CMC (l:c) | : | 2:1 | | |
| Colour difference, ΔE_{cmc} | : | ≤ 2.0 | | |

Interpretation of Results :

- i) If ΔE_{cmc} is less than or equal to 2, then sample is acceptable.
- ii) If ΔE_{cmc} is greater than 2, then sample is unacceptable.

Note-1 : Absorbance/reflectance/ transmittance are affected by surface characteristic features of the substrate. Therefore comparison should be made between samples of same type i.e., identical fabric construction parameters and filament/ fibre composition.

Note-2 : Test should be carried out after proper conditioning as per AATCC 173 using Diffuse (sphere) geometry spectrophotometer.

01 May | 2015

Table-8A : Specification of colour for outer shell fabric "Track Suit"-Assam Rifle

(AATCC Test method 173 : 2009 & AATCC Evaluation Procedure 7 : 2009)

| | | | | |
|-------------------------------------|---|------------|-------|---------|
| Colour | : | Dark Green | | |
| System | : | CIE LCH | | |
| Illuminant Observer | : | D 65 | | |
| Standard Observer | : | 10 Degree | | |
| Tristimulus Values | : | X | Y | Z |
| | | 3.18 | 3.662 | 3.662 |
| LCH | : | L | C | H |
| | | 22.521 | 5.022 | 151.968 |
| CMC (1:c) | : | 2:1 | | |
| Colour difference, ΔE_{cmc} | : | ≤ 2.0 | | |

Interpretation of Results :

- i) If ΔE_{cmc} is less than or equal to 2, then sample is acceptable.
- ii) If ΔE_{cmc} is greater than 2, then sample is unacceptable.

Note-1 : Absorbance/reflectance/ transmittance are affected by surface characteristic features of the substrate. Therefore comparison should be made between samples of same type i.e., identical fabric construction parameters and filament/ fibre composition.

Note-2 : Test should be carried out after proper conditioning as per AATCC 173 using Diffuse (sphere) geometry spectrophotometer.

01 May | 2015

Table-8B : Specification of colour for Yoke attached with outer shell fabric
 "Track Suit"-Assam Rifle
 (AATCC Test method 173 : 2009 & AATCC Evaluation Procedure 7 : 2009)

| | | | | |
|-------------------------------------|---|------------|-------|---------|
| Colour | : | Black | | |
| System | : | CIE LCH | | |
| Illuminant Observer | : | D 65 | | |
| Standard Observer | : | 10 Degree | | |
| Tristimulus Values | : | X | Y | Z |
| | | 2.404 | 2.474 | 2.792 |
| LCH | : | L | C | H |
| | | 17.801 | 1.558 | 321.218 |
| CMC (l:c) | : | 2:1 | | |
| Colour difference, ΔE_{cmc} | : | ≤ 2.0 | | |

Interpretation of Results :

- i) If ΔE_{cmc} is less than or equal to 2, then sample is acceptable.
- ii) If ΔE_{cmc} is greater than 2, then sample is unacceptable.

Note-1 : Absorbance/reflectance/ transmittance are affected by surface characteristic features of the substrate. Therefore comparison should be made between samples of same type i.e., identical fabric construction parameters and filament/ fibre composition

Note-2 : Test should be carried out after proper conditioning as per AATCC 173 using Diffuse (sphere) geometry spectrophotometer.

01 May 2015

Table-9A : Specification of colour for outer shell fabric "Track Suit"-NSG
(AATCC Test method 173 : 2009 & AATCC Evaluation Procedure 7 : 2009)

| | | | | |
|-------------------------------------|---|------------|-------|---------|
| Colour | : | Black | | |
| System | : | CIE LCH | | |
| Illuminant Observer | : | D 65 | | |
| Standard Observer | : | 10 Degree | | |
| Tristimulus Values | : | X | Y | Z |
| | | 2.404 | 2.474 | 2.792 |
| LCH | : | L | C | H |
| | | 17.801 | 1.559 | 321.219 |
| CMC (l:c) | : | 2:1 | | |
| Colour difference, ΔE_{cmc} | : | ≤ 2.0 | | |

Interpretation of Results :

- i) If ΔE_{cmc} is less than or equal to 2, then sample is acceptable.
- ii) If ΔE_{cmc} is greater than 2, then sample is unacceptable.

Note-1 : Absorbance/reflectance/transmittance are affected by surface characteristic features of the substrate. Therefore comparison should be made between samples of same type i.e., identical fabric construction parameters and filament/fibre composition.

Note-2 : Test should be carried out after proper conditioning as per AATCC 173 using Diffuse (sphere) geometry spectrophotometer.

01 May | 2015

Table-9 B : Specification of colour for Yoke attached with outer shell fabric "Track Suit"-NSG

(AATCC Test method 173 : 2009 & AATCC Evaluation Procedure 7 : 2009)

| | | | | |
|-------------------------------------|---|------------|--------|--------|
| Colour | : | Yellow | | |
| System | : | CIE LCH | | |
| Illuminant Observer | : | D 65 | | |
| Standard Observer | : | 10 Degree | | |
| Tristimulus Values | : | X | Y | Z |
| | | 46.077 | 43.383 | 7.046 |
| LCH | : | L | C | H |
| | | 71.814 | 72.231 | 78.276 |
| CMC (1:c) | : | 2:1 | | |
| Colour difference, ΔE_{cmc} | : | ≤ 2.0 | | |

Interpretation of Results :

- i) If ΔE_{cmc} is less than or equal to 2, then sample is acceptable.
- ii) If ΔE_{cmc} is greater than 2, then sample is unacceptable.

Note-1 : Absorbance/reflectance/ transmittance are affected by surface characteristic features of the substrate. Therefore comparison should be made between samples of same type i.e., identical fabric construction parameters and filament/ fibre composition.

Note-2 : Test should be carried out after proper conditioning as per AATCC 173 using Diffuse (sphere) geometry spectrophotometer.

01 May 2015

Table-10A : Specification of colour for outer shell fabric "Track Suit"-CISF
(AATCC Test method 173 : 2009 & AATCC Evaluation Procedure 7 : 2009)

| | | | | |
|-------------------------------------|---|------------|-------|---------|
| Colour | : | Navy Blue | | |
| System | : | CIE LCH | | |
| Illuminant Observer | : | D 65 | | |
| Standard Observer | : | 10 Degree | | |
| Tristimulus Values | : | X | Y | Z |
| | | 2.593 | 2.747 | 3.854 |
| LCH | : | L | C | H |
| | | 19.001 | 8.639 | 297.665 |
| CMC (l:c) | : | 2:1 | | |
| Colour difference, ΔE_{cmc} | : | ≤ 2.0 | | |

Interpretation of Results :

- (i) If ΔE_{cmc} is less than or equal to 2, then sample is acceptable.
- (ii) If ΔE_{cmc} is greater than 2, then sample is unacceptable.

Note-1 : Absorbance/reflectance/ transmittance are affected by surface characteristic features of the substrate. Therefore comparison should be made between samples of same type i.e., identical fabric construction parameters and filament/fibre composition

Note-2 : Test should be carried out after proper conditioning as per AATCC 173 using Diffuse (sphere) geometry spectrophotometer.

01 May 2015

Table-10 B : Specification of colour for Yoke attached with outer shell fabric "Track Suit"-CISF

(AATCC Test method 173 : 2009 & AATCC Evaluation Procedure 7 . 2009)

| | | | | |
|----------------------|---|-----------|--------|---------|
| Colour | : | White | | |
| Illuminant Observer | : | D 65 | | |
| Standard Observer | : | 10 Degree | | |
| Tristimulus Values | : | X | Y | Z |
| | | 78.502 | 81.980 | 103.353 |
| Whiteness Index(CIE) | : | 125±10 | | |

Note-1 : Absorbance/reflectance/transmittance are affected by surface characteristic features of the substrate. Therefore comparison should be made between samples of same type i.e., identical fabric construction parameters and filament/ fibre composition.

Note-2 : Test should be carried out after proper conditioning as per AATCC 173 using Diffuse (sphere) geometry spectrophotometer.

Table-11A : Specification of colour for outer shell fabric "Track Suit"-SSB
(AATCC Test method 173 : 2009 & AATCC Evaluation Procedure 7 : 2009)

| | | | | |
|-------------------------------------|---|------------|--------|-------|
| Colour | : | MAROON | | |
| System | : | CIE LCH | | |
| Illuminant Observer | : | D 65 | | |
| Standard Observer | : | 10 Degree | | |
| Tristimulus Values | : | X | Y | Z |
| | | 6.578 | 4.551 | 4.547 |
| LCH | : | L | C | H |
| | | 25.415 | 27.514 | 2.890 |
| CMC (l:c) | : | 2:1 | | |
| Colour difference, ΔE_{cmc} | : | ≤ 2.0 | | |

Interpretation of Results :

- i) If ΔE_{cmc} is less than or equal to 2, then sample is acceptable.
- ii) If ΔE_{cmc} is greater than 2, then sample is unacceptable.

Note-1 : Absorbance/reflectance/transmittance are affected by surface characteristic features of the substrate. Therefore comparison should be made between samples of same type i.e. identical fabric construction parameters and filament/fibre composition.

Note-2 : Test should be carried out after proper conditioning as per AATCC 173 using Diffuse (sphere) geometry spectrophotometer.

01 May | 2015

Table-11B : Specification of colour for Yoke attached with outer shell fabric
"Track Suit"-SSB

(AATCC Test method 173: 2009 & AATCC Evaluation Procedure 7 : 2009)

| Colour | : | White | | | | | | |
|----------------------|--------|--|---|---|---|--------|--------|---------|
| System | : | CIE LCH | | | | | | |
| Illuminant Observer | : | D 65 | | | | | | |
| Standard Observer | : | 10 Degree | | | | | | |
| Tristimulus Values | : | <table border="1"><thead><tr><th>X</th><th>Y</th><th>Z</th></tr></thead><tbody><tr><td>78.502</td><td>81.980</td><td>103.353</td></tr></tbody></table> | X | Y | Z | 78.502 | 81.980 | 103.353 |
| | X | Y | Z | | | | | |
| 78.502 | 81.980 | 103.353 | | | | | | |
| Whiteness Index(CIE) | : | 125±10 | | | | | | |

Note-1 : Absorbance/reflectance/ transmittance are affected by surface characteristic features of the substrate. Therefore comparison should be made between samples of same type i.e., identical fabric construction parameters and filament/ fibre composition.

Note-2 : Test should be carried out after proper conditioning as per AATCC 173 using Diffuse (sphere) geometry spectrophotometer.

01 May 2015

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 "Track Suit" tendering by him for inspection to comply with the requirements of this standard in all respects.

17- 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. 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-12

Table-12: Number of "Track Suit" to be selected from a lot and permissible number of non-conforming "Track Suit"

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

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 "Track Suit" 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 tendering authority 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 (Table 13):

01 May 2015

Table 13: Criterion for conformity

| Characteristics | Number of test samples | Criteria for conformity |
|---|---|--|
| Dimensions, Nos. of ends & picks, Nos of mesh/sq inch visual colour inspection and freedom from defects | All "Track Suit" selected according to column 2 of table-12 | Non-conforming "Track Suit" not to exceed the corresponding number given in column 3 of table-12 |
| Dimensional change, pH value, mass, breaking strength, tear strength, abrasion resistance, colour fastness to various agencies, colour specification. | All "Track Suit" selected according to column 4 of table-12 | Non-conforming "Track Suit" not to exceed the corresponding number given in column 5 of table-12 |

Note: Test methods may be taken as guidance wherever specimen size is not sufficient as per standard.

8.0 MARKING

A woven cloth label (length: 5.5 cm and width: 4.0 cm, double fold) marked with the following information (Label colour shall be / bleed on to the "Track Suit" during storage or use) shall be stitched to the inside of the neck portion (backside) of both outer and inner jackets of "Track Suit".

- a) Size in cm
- b) Manufacturer's name or trade mark, if any
- c) Any other information required by the buyer

9.0 PACKING

The "Track Suit" shall be delivered in clean and dry condition. One such bag shall be packed in a polyethylene bag. Four such "Track Suit" shall be made into one unit pack by suitably placing in the cardboard box (Cases).

01 May | 2015

Unless otherwise agreed upon by the buyer and seller the "Track Suit" shall be packed in cases in conformity with the procedure laid down in IS 1347: 1972 or IS: 1980.

Before dispatch, each box shall be legibly marked by stencil showing the following information:

- i) Nomenclature and Category number of the store
- ii) Quantity packed in the box
- iii) Serial number of the box
- iv) Month & Year of packing
- v) Name/Trademark of the Manufacture
- vi) Gross weight of the box in Kg.
- vii) Name & Address of the consignee
- viii) Inspection note number and date
- ix) Any other information required by the customer

10.0 REFERENCES

LIST OF REFERED STANDARDS

| Sl. No. | Method/Spec. number | Title |
|---------|-------------------------|--|
| 1. | IS:397(Part I) : 2003 | Method for statistical quality control during production : Part I Control charts for variable |
| 2. | IS:14452:1997 | Textiles-Care Labeling code using symbols |
| 3. | IS:397 (Part II): 2003 | Method for statically quality control during production: Part 2 Control charts for attributes and count of defects |
| 4. | IS:6359: 1971 | Method for conditioning of Textiles |
| 5. | IS:9543:1980 | Spun polyester sewing threads |
| 6. | IS:10789:2000 | Classification and terminology of stitch types used in seams |
| 7. | IS:11161:2000 | Textiles-seam types-classification and terminology |
| 8. | IS:1963:1981 | Method for determination of thread per unit length in woven fabric |
| 9. | IS:1964:1970 | Methods for determination of weight per square meter and weight per linear meter of fabric |
| 10. | IS: 1954:1990 | Determination of length and width of woven fabric |
| 11. | IS:1969:1985 | Method for determination of breaking strength and elongation of woven fabrics |
| 12. | IS: 2977: 1989 | Fabrics (other than wool)-Method for determination of dimensional changes on soaking in water |
| 13. | IS 667: 1981 | Method for identification of textile fibres |
| 14. | IS 6489: 1993 | Woven fabrics-Determination if tear resistance by falling pendulum method |
| 15. | IS/ISO 05:C10 C(3):2006 | Method for determination of colour fastness of textile material to washing |

01 May 2015

| | | |
|-----|-------------------------------------|---|
| 16. | IS 971:1983. | Method for determination of colour fastness of textile material to perspiration |
| 17. | IS 12673: 1989 | Methods for determination abrasion resistance |
| 18. | IS 766:1988 | Method for determination of colour fastness of textile material to rubbing |
| 19. | IS 2454:1985 | Method for determination of colour fastness of textile material to artificial light (Xenon lamp) |
| 20. | IS 1390 : 1983 | Method for determination of pH value of aqueous extract of textile materials |
| 21. | AATCC Test method 173 : 2009 | CMC: Calculation of small colour differences for acceptability |
| 22. | AATCC Evaluation Procedure 7 : 2009 | Instrumental assessment of the change in colour of a test specimen |
| 23. | IS 3416 (Pt I): 1988 | Method for quantitative chemical analysis of binary mixtures of polyester fibres with cotton or regenerated cellulose |

01 May 2015

ANNEX A

Weave structure of Component-1

| | | | | | | | | | | | |
|----|---|---|---|---|---|---|---|---|---|----|----|
| 1 | o | o | x | o | x | o | o | o | o | x | o |
| 2 | x | x | o | x | o | x | x | x | x | o | x |
| 3 | x | x | x | o | x | o | x | x | o | x | o |
| 4 | x | x | o | x | o | x | x | x | x | o | x |
| 5 | x | x | x | o | x | o | x | x | o | x | o |
| 6 | o | o | o | x | o | x | o | o | x | o | x |
| 7 | x | x | x | o | x | o | x | x | o | x | o |
| 8 | x | x | o | x | o | x | x | x | x | o | x |
| 9 | x | x | x | o | x | o | x | x | o | x | o |
| 10 | x | x | o | x | o | x | x | x | x | o | x |
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 |

o: X/Y/Z/A/B float weave and rib floats weave.

01 May 2015

ANNEX B

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 "Track Suit" constituting the test specimen. Lay it flat on a table. Remove by hand all crease and wrinkles without distorting the specimen. Measure nearest to 0.1 cm, the dimensions given in Table-2