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## Indian Standard

## SPECIFICATION FOR THE NATIONAL FLAG OF INDIA (COTTON KHADI)

(Second Revision)

Fourth Reprint MAY 1989

(Incorporating Amendment No. 1)

UDC 929.9(540):677.21.064

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BUREAU OF INDIAN STANDARDS MANAK BHAVAN, 9 BAHADUR SHAH ZAFAR MARG NEW DELHI 110002

## Indian Standard

## SPECIFICATION FOR THE NATIONAL FLAG OF INDIA (COTTON KHADI)

## (Second Revision)

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BUREAU OF INDIAN STANDARDS MANAK BHAVAN, 9 BAHADUR SHAH ZAFAR MARG **NEW DELHI 110002** 

## Indian Standard

## SPECIFICATION FOR THE NATIONAL FLAG OF INDIA (COTTON KHADI)

(Second Revision)

#### 0. FOREWORD

- **0.1** This Indian Standard (Second Revision) was adopted by the Indian Standards Institution on 17 August 1968, after the draft finalized by the National Ylag of India Sectional Committee had been approved by the Textile Division Council.
- 0.2 This standard was first published in 1951 and was revised in 1964 with a view to changing over completely the dimensions in metric system subsequent to its adoption by the Government of India. In the revised standard the details of yarn for warp and west of cotton khadi bunting and of cotton khadi duck were deleted, the dimensions of hemp cordage and those of wooden toggles used for different sizes of slags were amended, and the pH value of the aqueous extract of bunting and tolerances on the dimensions of the flag and Asoka Chakra were prescribed.
- **0.3** The dimensions of flags specified in the first revision of the standard were the exact equivalents of the non-metric values specified in the first version of the standard. In the present revision the dimensions of flags have been expressed in the rationalized metric values. This opportunity has also been taken to amend:
  - i) method of attaching the panels of the flags: (a) in order to make the panels of equal widths on both sides of the flags, and (b) for positioning the Chakra, exactly in the centre of the white panel on both the sides; and
  - ii) tolerances on the dimensions of the flag and the Chakra.
- 0.4 This standard contains clauses 8.1, 9.3, 9.5 and 9.6 (b) which call for agreement between the buyer and the manufacturer.
- **0.5** For the purpose of deciding whether a particular requirement of this standard 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\*. The number of significant places retained in the rounded off value should be the same as that of the specified value in this standard.

<sup>\*</sup>Rules for rounding off numerical values (revised).

#### 1. SCOPE

1.1 This standard prescribes the design, constructional details and other particulars of the National Flag of India made of hand-spun and hand-woven cotton khadi bunting.

#### 2. DESIGN

2.1 The flag shall be rectangular in shape and ratio of the length to the width shall be 3:2.

NOTE — However, if required for special purposes, flags having length to width ratio different from 3:2, may be made.

2.2 The flag shall be a tricolour panel made up of three rectangular panels or sub-panels (see Note) of equal widths. The colour of the top panels shall be India saffron (KESARI), and that of the bottom panel shall be India green; the middle panel shall be white, bearing at its centre the design of Asoka Chakra in navy blue colour.

NOTE — Sub-panels are small pieces which are used to make up the width of the panel. In case of large-size flags, it often happens that the width of the cloth available is not sufficient for constituting a single panel; in such cases, pieces of cloth of smaller widths may be attached together to get the required width of the panel. The sub-panels shall be attached together by lapped seam with the raw edges turned in.

#### 3. MATERIALS

#### 3.1 Cotton Khadi Bunting

3.1.1 Yarn — The yarn used for the manufacture of bunting shall be handspun from clean-carded cotton. The approximate count of yarn for warp and weft shall be 30 tex  $\times$  2 (or Nm 33/2).

Note — To convert universal count, in tex, to metric count divide 1 000 by the universal count.

3.1.2 Cloth — The bunting shall be woven on handlooms in plain weave. The particulars of bunting shall be as given in Table 1.

|                     | TABLE 1 PARTICULARS  | OF COTTON KHADI | BUNTING               |
|---------------------|--|-----------------|-----------------------|
| St No.              | CHARACTERISTIC   | REQUIREMENT     | METHOD OF TEST        |
| <b>i</b> )          | Ends/dm  | 175 ± 4         | 7.1 of IS: 1963-1961* |
| ii)                 | Picks/dm   | $165 \pm 16$    | 7.2 of IS: 1963-1961* |
| ii)<br>iii <i>)</i> | Weight, g/m <sup>2</sup>                                     | $205 \pm 20$    | 7.1 of IS: 1964-1961+ |
| iv)                 | Breaking load on $50 \times 200$ mm strips, kg, <i>Min</i> : |                 |                       |
|                     | Warp   | 40 ጊ            | 8.1.2 and 9 of        |
|                     | Weft   | کر38            | IS: 1969-1961‡        |

\*Method for determination of ends and picks per unit length in woven fabrics. (Since revised).

†Method for determination of weight per square metre and weight per linear metre of fabrics. (Since revised).

\*Method for determination of breaking load and alongation at break of woven fabric (by constant-rate-of-traverse machine). (Since revised).

- 3.1.2.1 The bunting meant for manufacturing the top and bottom panels shall be bleached and dyed in India saffron (KESARI) and India green respectively and that meant for the middle panel shall be bleached. The dyed pieces shall be free from dyeing defects, such as uneven dyeing and streakiness.
- 3.1.2.2 The colours of the flag, that is, India saffron (KESARI), India green and navy blue, shall correspond, when visually examined in ordinary daylight to the colours in the sealed standard flag held in the custody of the Chief Inspector, Chief Inspectorate of Textiles & Clothing, Kanpur,

Note — Spectrophotometric values of the white, India saffron (KESARI) and India green colours in the flag presented to the Constituent Assembly on 22 July 1947 were measured by the then Technical Development Establishment Laboratory (Stores), Kanpur using the illuminant C as specified by the International Commission on illumination, 1931 and found to be as follows:

| Colour                   | Tri                  | Brightness,<br>Percent |                |         |
|--------------------------|----------------------|------------------------|----------------|---------|
|                          | $\tilde{\mathbf{x}}$ | Y                      | $\overline{z}$ | rercent |
| White                    | 0.313                | 0.319                  | 0.368          | 72.6    |
| India saffron ( KES.1R1) | 0.538                | 0.360                  | 0.102          | 21.5    |
| India green              | 0.288                | 0.395                  | 0.317          | 8-9     |

It is intended that the flags made to conform to this standard should have colours approximating as closely as possible to the colours as defined above. For all practical purposes, however, correspondence to the sealed standard flag shall be considered adequate.

For the purpose of controlling production, sample pieces of bunting dyed to the standard colours [India saffron (KESARI), India green and navy blue] may be obtained at nominal cost from the Indian Standards Institution.

3.1.2.3 The colour fastness ratings and other requirements of bunting are given in Table 2.

### 3.2 Cotton Khadi Duck -- used for the sleeve of the flag.

3.2.1 Yarn—The yarn used in the manufacture of duck shall be handspun from clean carded cotton. The approximate count of yarn for warp and weft shall be 38 tex  $\times$  3 (or Nm 26/3).

NOTE - To convert universal count, in tex, to metric count divide 1 000 by the universal count.

3.2.2 Cloth — The duck shall be woven on handlooms in plain weave. It shall be used in the scoured state and shall conform to the requirements of Table 3.

### 3.3 Sewing Thread

3.3.1 Sewing threads used for all machine stitching shall conform to Variety No. 15 of IS:1720-1960\* [16 tex  $\times$  2  $\times$  3 (36s/2/3)], the colour

<sup>\*</sup>Specification for cotton sewing thread, bleached or dyed. (Since revised).

of the sewing thread being the same as that of the panels on which it appears.

3.3.2 For sewing hemp cordage inside the sleeve, sewing thread conforming to Variety No. 19 of IS: 1720-1960\* [27 tex  $\times 3 \times 3$  (22s/3/3)] shall be used.

#### TABLE 2 REQUIREMENTS OF COTTON KHADI BUNTING

(Clause 3,1.2.3)

| St. No. | CHARACTERISTIC                          | REQUIREMENT                             | METHOD OF TEST                                      |
|---------|---|---|---|
| i)      | Colour fastness to:<br>Light (see Note) | 6 or better                             | IS: 686-1957*                                       |
| ii)     | Washing pH Value.                       | 4 or better<br>6:0 Min                  | IS : 2454-1967†<br>IS : 765-1966‡<br>Cold Method of |
| iii)    | Dimensional changes                     | 7·5 <i>Max</i><br>4 percent, <i>Max</i> | IS : 1390-1961§<br>IS : 2977-1964                   |

Note - In case of dispute, colour fastness to light shall be determined by the method given in IS: 686-1957\*.

\*Method for determination of colour fastness of textile materials to daylight.

†Method for determination of colour fastness of textile materials to artificial light (xenon lamp).

†Method for determination of colour fastness of textile materials to washing: Test 4 ( revised ).

§Methods for determination of pH value of aqueous extracts of textile materials.

Method for determination of dimensional changes of woven fabrics (other than wool) on soaking in water.

#### TABLE 3 REQUIREMENTS OF COTTON KHADI DUCK

( Clause 322)

|         | Citais  | E 3.2.2)        |                       |
|---------|---|-----------------|-----------------------|
| St. No. | CHARACTERISTIC                                | REQUIREMENT     | METHOD OF TEST        |
| i)      | Ends/dim                                      | $158 \pm 4$     | 7.1 of IS: 1963-1961* |
| ii)     | Picks/dm                                      | 134 <u>+</u> 12 | 7.2 of IS: 1963-1961* |
| iii)    | Weight, g/m²                                  | $355 \pm 35$    | 7.1 of IS: 1964-1961† |
| iv)     | Breaking Load on 50 × 200 mm strips, kg, Min: |                 |                       |
|         | Warp<br>Weft                                  | $\frac{48}{43}$ | 8.1.2 and 9 of        |

\*Method for determination of ends and picks per unit length in woven fabrics. (Since revised ).

†Method for determination of weight per square metre and weight per linear metre of fabrics. (Since revised).

Method for determination of breaking load and elongation at break of woven fabric (by constant-rate-of-traverse machine). (Since revised).

<sup>\*</sup>Specification for cotton sewing thread, bleached or dyed. (Since revised)

#### 3.4 Hemp Cordage

3.4.1 The cordages of various sizes shall conform to the requirements given in Table 4.

| TABLE 4 | REQUIREMENTS   | OF HEMP  | CORDAGE |
|---------|----------------|----------|---------|
| IADLE   | VEO OIVEMEN 12 | OL HEMIL | CONDAG  |

| Nominal Size<br>(Circumference) | Number of Strands<br>in the Cordage | Nominal.<br>Linear Density* | BREAKING LOAD<br>ON ONE METRE<br>TEST LENGTH, Min |
|---------------------------------|-------------------------------------|-----------------------------|---|
| (1)                             | (2)                                 | (3)                         | (4)   |
| mni                             |                                     | k tex                       | kg  |
| 19                              | 3                                   | 25                          | 150   |
| 25                              | 3                                   | 52                          | 300   |
| 32                              | 3                                   | 64                          | 355   |
| 38                              | 3                                   | 105                         | 590   |

<sup>\*</sup>Linear density in kilotex (k tex) - the number of kilograms per kilometre.

3.4.2 Breaking load of the cordage shall be determined by the method prescribed in Appendix A.

#### 3.5 Wooden Toggles

3.5.1 Wooden toggles shall be nade from well seasoned timber. Following species of timber are recommended for making the toggles:

| Trade | Name |
|-------|------|
| Hald  | lu   |
| Pada  | uk   |
| Shis  | ham  |
| Sal   |      |
| Teal  | 2    |

#### BOTANICAL NAME

Adina cordifolia Hook.f.
Pterocarpus dalbergioides Roxb.
Dalbergia Latifolia Roxb.
Sharca robusta Gaertn.f.
Tectona crandis Linn.f.

3.5.2 The size of wooden toggles used for various sizes of flags shall be in accordance with the applicable requirements of Table 5 (see col 10 to 14) read with Fig. 1.

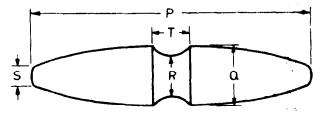


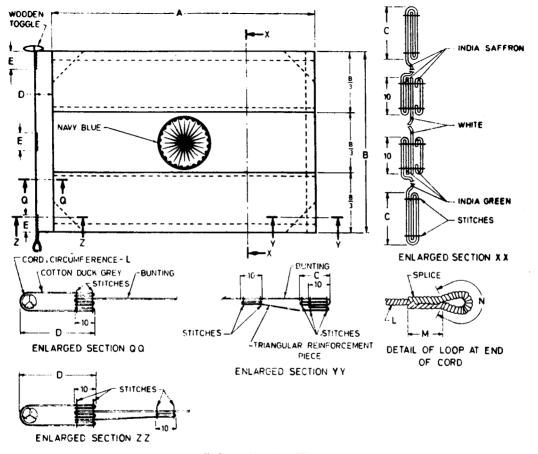
FIG. 1 DETAILS OF WOODEN TOGGLE

TABLE 5 DIMENSIONS OF THE FLAG AND WOODEN TOGGLE

(Clauses 3.5.2, 4.1, 5.2, 5.4 and 5.5, and Fig. 1, 2 and 3)

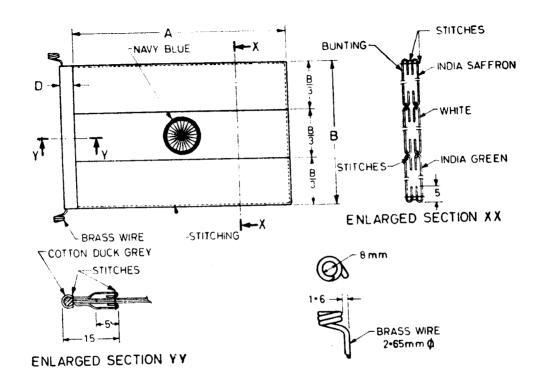
All dimensions in millimetres.

| FLAG                       | LENGTH | WIDIN |                  | SLE | EVE         |             | ENSIONS |               | Wo     | ореи Т     | oggle I    | DIMENSIO | )NS    |
|----------------------------|--------|-------|------------------|-----|-------------|-------------|---------|---------------|--------|------------|------------|----------|--------|
| Size<br>No.                |        |       | ог<br>Нем        |     |             |             | P CORDA |               | Length |            | Diameter   | :s       | Groove |
|                            | A      | В     | $\boldsymbol{c}$ | D   | E           | L           | M       | $\mathcal{N}$ | P      | Q          | R          | s        | T      |
| (1)                        | (2)    | (3)   | (4)              | (5) | <b>(6</b> ) | <b>(7</b> ) | (8)     | (9)           | (10)   | (11)       | (12)       | (13)     | (14)   |
| 1                          | 6 300  | 4 200 | 25               | 65  | 40          | 38          | 65      | 140           | 125    | <b>3</b> 0 | 22         | 15       | 14     |
| 2                          | 3 600  | 2 400 | . 15             | 50  | 40          | 32          | 65      | 130           | 105    | 25         | 17         | 7        | 12     |
| 3                          | 2 700  | 1 800 | 15               | 45  | 40          | 25          | 65      | 120           | 90     | 20         | 13         | 5        | 10     |
| 4                          | 1 800  | 1 200 | 15               | 40  | 40          | 19          | 65      | 110           | 75     | 17         | 10         | 4        | 8      |
| 5                          | 1 350  | 900   | 15               | 40  | 40          | 19          | 65      | 110           | 65     | 17         | 10         | 4        | 8      |
| 6                          | 900    | 600   | 15               | 40  | 40          | 19          | 65      | 110           | 65     | 17         | 10         | 4        | 8      |
| 7                          | 225    | 150   | _                | 15  |             | _           | _       | _             |        |            |            | _        | _      |
| Tole-<br>rance,<br>percent | ± 1·5  | ± 1\5 | ± 2              | ± 2 | ± 2         | ± 2         | ± 2     | ± 2           | ± 2    | ± 2        | + 2<br>- 0 | ± 2      | ± 2    |



All dimensions in millimetres.

Fig. 2 Constructional Details of the National Flag (Cotton Khadi)



9

All dimensions in millimetres.

Fig. 3 Constructional Details of the National Flag for Motor Car

#### 4. FLAG

- 4.1 Size The finished flags of different sizes shall conform to the applicable requirements of Table 5 (see col 2 and 3) and shall be designated as that size. The other dimensions of flags, such as width of sleeve, depth of hem, hemp cordage and loop shall be in accordance with the applicable requirements of Table 5 read with Fig. 2 and 3.
- 4.2 Flags of Size No. 1 to 6 shall be manufactured from one layer of bunting; those of Size No. 7 (for motor cars) shall be manufactured from two layers of bunting.
- 4.3 Asoka Chakra The Asoka Chakra shall preferably be screen printed, or otherwise printed or stencilled or suitably embroidered with navy blue colour embroidery thread conforming to Variety No. 7 of IS:1803-1961\*. In all the cases, the Chakra shall be completely visible on both sides of the flag in the centre of the white panel.
- 4.3.1 The dimensions of the Asoka Chakra on different sizes of flags shall be in accordance with the requirements of Table 6 read with Fig. 4.

|               | TABLE 6 DIMENSIONS OF ASOKA CHAKRA All dimensions in millimetres. |          |                |                  |  |
|---------------|---|----------|----------------|------------------|--|
| FLAG SIZE No. | J   | <i>K</i> | L              | N<br>( Nominal ) |  |
| (1)           | (2)   | (3)      | (4)            | (5)              |  |
| 1             | 1 295   | 1 120    | 112            | 14               |  |
| 2             | 740   | 640      | 64             | 8                |  |
| 3             | 555   | 480      | <del>4</del> 8 | 6                |  |
| 4             | 370   | 320      | 32             | 4                |  |
| 5             | 280   | 242      | 24             | 3                |  |
| 6             | 185   | 160      | 16             | 2                |  |
| 7             | 40  | 35       | 3.5            | 0.4              |  |

#### 5. CONSTRUCTION

5.1 For all machine stitching, that is, stitching raw edges, attaching the panels, sleeve and corner pieces to the flag, etc, lock stitches shall be used. The number of stitches shall be not less than 4 per centimetre.

<sup>\*</sup>Specification for cotton embroidery thread, bleached or dyed. (Since revised).

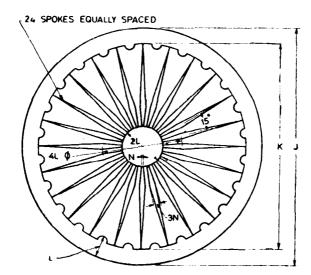


Fig. 4 Design of Asoka Chakra

- 5.2 The panels of flags of Size No. 1 to 6 shall be attached by stitching them as shown in Fig. 2. A tolerance of  $\pm 2$  mm shall be permitted in the depth of lapped seam of the panels (which is 10 mm) (see section XX of Fig. 2). Except along one of the widths, the raw edges along three sides of the flag shall be turned over twice and stitched to form a hem as shown in Fig. 2. The depth of hem shall be in accordance with the applicable requirement of Table 5 (see col 4). Along the other width, a sleeve (see 3.2) shall be attached.
- **5.2.1** The panels of flags of Size No. 7 (for motor cars) shall be attached by stitching them as shown in Fig. 3. Except along one of the widths, the raw edges along three sides shall be turned in once to a depth of 5 mm and shall be stitched as shown in Fig. 3.
- **5.3 Reinforcements** The four corners of flags of Size No. 1 to 6 shall be reinforced with triangular pieces of bunting of the same construction and colour as is used for making the flags.
- 5.4 Sleeve—A sleeve shall be provided along that side of the flags where the raw edge has not been stitched. The width of the sleeve of flags shall be in accordance with the applicable requirement of Table 5 (see col 5), read with Fig. 2 and 3.
- 5.5 Hemp Cordage—In flags of Size No. 1 to 6, a hemp cordage (see 3.4) shall be inserted in the sleeve and shall be hand-stitched at three places, that is, top, middle and bottom of the sleeve as shown in Fig. 2. It shall have spliced-in loops, one at the top for the toggle and the other at the

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bottom. The dimensions of the hemp cordage used for flags of Size No. 1 to 6 shall be in accordance with the applicable requirements of Table 5 (see col 7 to 9).

- 5.5.1 Brass Wire Flags of Size No. 7 shall be provided with a brass wire of 2.65 mm diameter as shown in Fig. 3.
- **5.6 Toggle**—A toggle (see **3.5**) shall be attached to each flag at the top (except for flags of Size No. 7) by splicing the hemp cordage around it before sewing the latter inside the sleeve.

#### 6. SEALED SAMPLE

6.1 All flags made to this standard, besides satisfying the requirements of the standard, shall be in general conformity with the sealed standard National Flag of India (cotton khadi) held in the custody of the Chief Inspector, Chief Inspectorate of Textiles & Clothing, Kanpur.

#### 7. MARKING

- 7.1 Flags shall be marked on the sleeve with the following:
  - a) Flag Size No.,
  - b) Length × width in millimetres,
  - c) Manufacturer's name or trade-mark,
  - d) Year of manufacture, and
  - e) Any other information required by the buyer.
  - 7.1.1 The flags may also be marked with the ISI Certification Mark.

Note — The use of the ISI Certification Mark is governed by the provisions of the Indian Standards Institution (Certification Marks) Act and the Rules and Regulations made thereunder. The ISI Mark on products covered by an Indian Standard conveys the assurance that they have been produced to comply with the requirements of that standard under a well-defined system of inspection, testing and quality control which is devised and supervised by ISI and operated by the producer. ISI marked products are also continuously checked by ISI for conformity to that standard as a further safeguard. Details of conditions under which a licence for the use of the ISI Certification Mark may be granted to manufacturers or processors, may be obtained from the Indian Standards Institution.

#### 8. PACKING

8.1 Flags shall be packed as agreed to between the buyer and the seller.

#### 9. SAMPLING AND CRITERIA FOR CONFORMITY

- 9.1 In any consignment all national flags of the same size shall constitute a lot.
- 9.2 The conformity of a lot to the requirements of this standard shall be determined on the basis of tests carried out on samples selected from the lot.

9.3 Unless otherwise agreed upon between the buyer and the manufacturer, a certain number of flags depending upon the size of the lot shall be selected at random from the lot. The number of such flags shall be in accordance with col 1 and 2 of Table 7.

TABLE 7 NUMBER OF FLAGS TO BE SELECTED FROM A LOT AND PERMISSIBLE NUMBER OF NON-CONFORMING FLAGS

[ Clauses 9.3 and 9.6(a) ]

| Number of Flacs<br>in the Lot | NUMBER OF FLAGS TO<br>BE SELECTED | PERMISSIBLE NUMBER OF NON-CONFORMING FLAGS |
|-------------------------------|-----------------------------------|--|
| (1)                           | (2)                               | (3)  |
| Up to 25                      | 3                                 | 0  |
| 26 to 50                      | 5                                 | 0  |
| 51 ,. 100                     | -8                                | 0  |
| 101 ., 150                    | 13                                | 0  |
| 151 300                       | 20                                | 1  |
| <b>301</b> 500                | 32                                | 1  |
| 501 1 000                     | 50                                | 2  |
| 1001 3000                     | 80                                | 3  |
| 3 001 and above               | 125                               | 5  |

- 9.3.1 While selecting the flags from the lot, same number of flags, as far as possible, shall be selected from each package in the lot.
- 9.4 All flags selected as in 9.3 shall be tested for dimensions of flags, requirements of Asoka Chakra, construction of flags and size of wooden toggles.
- 9.5 For the purpose of determining requirements of cotton khadi bunting, colour fastness of dyed and printed pieces of bunting, pH value, shrinkage, requirements of cotton duck and sewing thread and the breaking load of hemp cordage, the method of sampling and determining conformity of a lot shall be as agreed to between the buyer and the manufacturer. The tests for these requirements may be conducted on the materials before fabricating the flags, or alternatively, sufficient quantity of the materials of the same quality as that which were used for manufacturing the flags shall be supplied along with the manufactured flags by the manufacturer for the purpose of these tests.
- **9.6 Criteria for Conformity** A lot shall be considered as conforming to this standard, if:
  - a) in respect of requirements enumerated in 9.4, the number of observed values failing to satisfy each of these requirements does not exceed the applicable number specified in col 3 of Table 7; and

b) in respect of requirements enumerated in 9.5, the criteria for conformity as agreed to between the buyer and the manufacturer is satisfied.

#### APPENDIX A

(Clause 3.4.2)

# METHOD FOR DETERMINATION OF BREAKING LOAD OF HEMP CORDAGE

# A-1. ATMOSPHERIC CONDITIONS FOR TESTING AND CONDITIONING OF TEST SAMPLE

- **A-1.1** The test shall preferably be carried out in a standard atmosphere at  $65 \pm 2$  percent relative humidity and  $27^{\circ} \pm 2^{\circ}$ C temperature (see also IS:196-1966\*).
- A-1.2 Prior to test, the test sample shall preferably be conditioned in the standard atmosphere or the prevailing atmosphere where the test is to be carried out for 48 hours.

#### A-2. APPARATUS

A-2.1 The sample shall be tested on a constant-rate-of-traverse horizontal-type of rope strength testing machine (preferably power-driven) provided with two jaw grips. The distance between the two jaw grips shall be adjusted to one metre and the speed of the moving jaw shall be between 150 and 300 mm/min.

#### A-3. PROCEDURE

- A-3.1 Fix a length of the cordage under test in the jaws of the machine. Apply a tension equal to 3 percent of the breaking load specified in Table 4 for the cordage of the corresponding size. Increase the load gradually and continuously until the specimen breaks. Read off the breaking load of the specimen.
- A-3.2 Repeat the test with the remaining test specimens.
- A-3.3 Calculate the average  $(\bar{X})$  and the range (R) from the observed values of breaking load.

#### A-4. REPORT

A-4.1 Report the lot to be in conformity with the requirements of Table 4 in respect of breaking load, if the value of the expressing  $\bar{X} - 0.4R$  is greater than or equal to the specified minimum value.

<sup>\*</sup>Atmospheric conditions for testing (revised).

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| ‡Peenya Industrial Area 1st Stage, Bangalo<br>BANGALORE 560058  | 1                                  | 38 49 5<br>38 49 5            | 5  |
| Gangotti Complex, 5th Floor, Bhadbhada Ro<br>BHOPAL 462003  |                                    | 6 67 1                        | 6  |
| Plot No. 82/83, Lewis Road, BHUBANESHV<br>53/5, Ward No. 29, R.G. Barus Road, 5th B<br>GUWAHATI 781003        | VAR 751002<br>yelane,              | 5 36 2<br>3 31 7              |    |
| 5-8-56C L. N. Gupta Marg ( Nampally Station HYDERABAD 500001  | on Road ).                         | 23 10 8                       | _  |
| R14 Yudhister Marg, C Scheme, JAIPUR 30   | į.                                 | 6 34 7<br>6 98 3              | 2  |
| 117/418 B Sarvodaya Nagar, KANPUR 208   |                                    | 21 68 7<br>21 82 9            |    |
| Patliputra Industrial Estate, PATNA 800013<br>T.C. No. 14/1421. University P.O., Palayam<br>TRIVANDRUM 695035 |                                    | 6 23 0<br>6 21 0<br>6 21 1    | 54 |
| Inspection Offices ( With Sale Point ):   |                                    | [0 21 ]                       | ,  |
| Pushpanjali, First Floor, 205-A West High C   | ourt Road                          | 2 51 7°                       | 1  |
| Shankar Nagar Square, NAGPUR 440010   | )                                  |                               | •  |
| Institution of Engineers (India) Building, 13<br>PUNE 411005  | 32 Shivaji Nagar,                  | 5 24 38                       | 5  |
| *Sales Office in Calcutta is at 5 Chowringhee Ap  | oproach, P. O. Princer             | 27 68 0                       | 0  |

<sup>\*</sup>Sales Office in Calcutta is at 5 Chowringhee Approach, P. O. Princep 27 68 00 Street, Calcutta 700072

<sup>†</sup>Sales Office in Bombay is at Novelty Chambers, Grant Road, 89 65 28 Bombay 400007

<sup>‡</sup>Sales Office in Bangalore is at Unity Building, Narasimharaja Square, 22 36 71 Bangalore 560002

## AMENDMENT NO. 2 FEBRUARY 1979

TO

# IS:1-1968 SPECIFICATION FOR THE NATIONAL FLAG OF INDIA (COTTON KHADI)

## (Second Revision)

[This amendment is being issued to include two additional sizes of flags. The flags of  $450 \times 300$  mm size are intended for use in aircrafts on VVIP flights and  $150 \times 100$  mm size as table flags.]

#### Alterations

( Page 7, Table 5 ) — Substitute the table on page 2 for the existing table:

( Page 10, Table 6 ) — Substitute the following for the existing table:

| 1                              | TABLE 6 DIME | NSIONS OF ASO | KA CHAKRA |          |  |  |  |
|--------------------------------|--------------|---------------|-----------|----------|--|--|--|
| All dimensions in millimetres. |              |               |           |          |  |  |  |
| FLAG SIZE No.                  | $\mathcal J$ | K             | L         | Nominal) |  |  |  |
| (1)                            | (2)          | (3)           | (4)       | (5)      |  |  |  |
| 1                              | 1 295        | 1 120         | 112       | 14       |  |  |  |
| 2                              | 740          | 640           | 64        | 8        |  |  |  |
| 3                              | 555          | 480           | 48        | 6        |  |  |  |
| 4                              | 370          | 320           | 32        | 4        |  |  |  |
| 5                              | 280          | 240           | 24        | 3        |  |  |  |
| 6                              | 185          | 160           | 16        | 2        |  |  |  |
| 7                              | 90           | 03            | 8         | 1        |  |  |  |
| 8                              | 40           | 35            | 3:5       | 0:5      |  |  |  |
| 9                              | 25           | 22            | 2         | 0.5      |  |  |  |

TOLERANCE ± 2 percent or ± 0.5 mm whichever is more -

All dimensions in millimetres.

|             | ENGTH | Width            | Depth<br>of<br>Hem | SLEEVE |     | DIMENSIONS OF HEMP<br>CORDAGE AND LOOP |            |     | Wooden Toggle Dimensions |           |                |            | GROOVE |
|-------------|-------|------------------|--------------------|--------|-----|--|------------|-----|--------------------------|-----------|----------------|------------|--------|
| Size<br>No. |       |                  |                    |        |     |  |            |     | Length                   | Diameters |                |            |        |
|             | A     | В                | C                  | D      | E   | L                                      | M          | N   | P                        | Q         | R              | s          | au     |
| (1)         | (2)   | (3)              | <b>(4</b> )        | (5)    | (6) | (7)                                    | <b>(8)</b> | (9) | (10)                     | (11)      | (12)           | (13)       | (14)   |
| 1           | 6 300 | 4 200            | 25                 | 65     | 40  | 38                                     | 65         | 140 | 125                      | 30        | 22             | 15         | 14     |
| 2           | 3 600 | 2 400            | 15                 | 50     | 40  | 32                                     | 65         | 130 | 105                      | 25        | 17             | 7          | 12     |
| 3           | 2 700 | 1 800            | 15                 | 45     | 40  | 25                                     | 65         | 120 | 90                       | 20        | 13             | 5          | 10     |
| 4           | 1 800 | 1 200            | 15                 | 40     | 40  | 19                                     | 65         | 110 | <b>7</b> 5               | 17        | 10             | 4          | 8      |
| 5           | 1 350 | 900              | 15                 | 40     | 40  | 19                                     | 65         | 110 | 65                       | 17        | 10             | 4          | 8      |
| 6           | 900   | 600              | 15                 | 40     | 40  | 19                                     | 65         | 110 | 65                       | 17        | 10             | 4          | 8      |
| 7           | 450   | 300              | 15                 | 40     | 40  | 19                                     | 65         | 110 | 65                       | 17        | 10             | 4          | 8      |
| 8           | 225   | 150              |                    | 15     |     | _                                      |            | _   |                          |           |                | _          | _      |
| 9           | 150   | 100              | -                  | 15     |     | _                                      | _          | -   |                          | _         | . <del>-</del> | _          |        |
| Tolerance   | ± 1.5 | ± 1.5<br>percent |                    | ± 2    | ± 2 | ± 2                                    | ± 2        | ± 2 | ± 2                      | ± 2       | + 2<br>- 0     | <u>;</u> ± | 2 ± 2  |

### AMENDMENT NO. 3 OCTOBER 1992 TO

# IS 1: 1968 SPECIFICATION FOR THE NATIONAL FLAG OF INDIA (COTTON KHADI)

(Second Revision)

(Since the publication of this standard, many of the cross referred standards have undergone revision. This amendment has been issued to specify the latest versions of such standards.)

(Page 3, Table 1, last column) — Substitute 'IS 1963: 1981\*' for '7.1 and 7.2 of IS: 1963-1961\*', 'IS 1964: 1970†' for '7.1 of IS: 1964-1961†', and 'IS 1969: 1985‡' for '8.1.2 and 9 of IS: 1969-1961‡'.

( Page 3, Table 1, foot-notes ) — Substitute the following for the existing foot-notes:

"Methods for determination of threads per unit length in woven fabrics ( second revision ).

†Methods for determination of weight per square metre and weight per linear metre of fabrics (first revision).

‡Methods for determination of breaking load and elongation of woven textile fabrics ( second revision ).'

( Page 4, clause 3.3.1, line 2 ) — Substitute 'Variety No. 28 of IS 1720 :  $1978* [165 \text{ dtex} \times 2 \times 3 (36s/2/3)]$ ' for 'Variety No. 15 of IS :  $1720-1960* [16 \text{ tex} \times 2 \times 3(36s/2/3)]$ '.

( Page 4, foot-note ) — Substitute the following for the existing foot-note:

- ( Page 5, clause 3.3.2, line 2 ) Substitute 'Variety No. 35 of IS 1720 :  $1978* [270.dtex \times 3 \times 3 (22s/3/3)]$ ' for 'Variety No. 19 of IS :  $1720 1960* [27 tex \times 3 \times 3 (22s/3/3)]$ '.
- ( Page 5, Table 2, last column ) Substitute 'IS 686 : 1985\*' for 'IS : 686-1957\*', 'IS 2454 : 1985†' for 'IS : 2454-1967†', 'IS 765 : 1979‡' for 'IS : 765 1966‡', 'IS 1390 : 1983§' for 'IS : 1390 1961§' and 'IS 2977 : 1989 $\mathbb{N}$ ' for 'IS : 2977 1964 $\mathbb{N}$ '.

<sup>&#</sup>x27;\*Specification for cotton sewing threads ( second revision ).'

( Page 5, Table 2, foot-notes ) — Substitute the following for the existing foot-notes:

\*\*Methods for determination of colour fastness of textile materials to daylight (first revision).

†Methods for determination of colour fastness of textile materials to artificial light (xenon lamp) (first revision).

\*Method for determination of colour fastness of textile materials to washing: Test 4 (second revision).

Methods for determination of pH value of aqueous extracts of textile materials (first revision).

IlFabrics (other than wool) — Method for determination of dimensional changes on soaking in water (first revision).

(Page 5, Table 3, last column) — Substitute the following for the existing matter:

'IS 1963: 1981\*' for '7.1 and 7.2 of IS: 1963-1961\*', 'IS 1964: 1970†' for '7.1 of 'IS: 1964-1961†' and 'IS 1969: 1985‡' for '8.1.2 and 9 of IS: 1969-1961‡'.

( Page 5, Table 3, foot-notes ) — Substitute the following for the existing foot-notes:

"Methods for determination of threads per unit length in woven fabrics ( second revision ).

†Methods for determination of weight per square metre and weight per linear metre of fabrics (first revision).

†Methods for determination of breaking load and elongation of woven textile fabrics (second revision).'

( Page 5, foot-note ) — Substitute the following for the existing foot-note:

(TXD8)

<sup>\*</sup>Specification for cotton sewing threads ( second revision )."

# AMENDMENT NO. 4 SEPTEMBER 2003

# IS 1:1968 SPECIFICATION FOR THE NATIONAL FLAG OF INDIA (COTTON KHADI)

(Second Revision)

[ Page 10, Table 6, Tolerance ( see also Amendment No. 2 ) ]— Substitute '±1 mm' for '±0.5' mm.

(TX 08)

Reprography Unit, BIS, New Delhi, India