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**उत्पाद मानुयल**  
**भारत का राष्ट्रीय ध्वज (कपास खादी )**  
**IS 1:1968 के अनुसार**

**PRODUCT MANUAL**  
**FOR THE NATIONAL FLAG OF INDIA (COTTON KHADI)**  
**ACCORDING TO IS 1:1968**

भारतीय मानक ब्यूरो (अनुरूपता मूल्यांकन) विनियम की स्कीम-I के तहत यह उत्पाद मानुयल प्रमाणीकरण के प्रचलन में रीति और पारदर्शिता के सुसंगत सुनिश्चित करने के लिए सभी क्षेत्रीय/शाखा कार्यालयों एवं लाइसेन्स धारियों द्वारा संदर्भ सामग्री के रूप में उपयोग किया जाएगा। बीआईएस लाइसेन्स/प्रमाण पत्र प्राप्त करने के इच्छुक भावी आवेदकों द्वारा भी इस दस्तावेज़ का उपयोग किया जा सकता है।

**This Product Manual shall be used as reference material by all Regional/Branch Offices & licensees to ensure coherence of practice and transparency in operation of certification under Scheme-I of Bureau of Indian Standards (Conformity Assessment) Regulations, 2018 for various products. The document may also be used by prospective applicants desirous of obtaining BIS certification licence/certificate.**

|    |                                              |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|----|----------------------------------------------|---|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1. | उत्पाद<br>Product                            | : | IS 1:1968                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|    | शीर्षक<br>Title                              | : | Specification For The National Flag Of India (Cotton Khadi)                                                                                                                                                                                                                                                                                                                                                                                                   |
|    | संशोधन संख्या<br>No. of amendments           | : | 04                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| 2. | नमूनाकरण दिशा निर्देश<br>Sampling Guidelines |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| a) | कच्चा माल<br>Raw material                    | : | <ul style="list-style-type: none"><li>- Cotton Khadi Bunting shall conform to CI 3.1</li><li>- Cotton Khadi Duck used for the sleeve of the flag shall conform to CI 3.2</li><li>- Sewing thread shall conform to CI 3.3</li><li>- Hemp Cordage shall conform to CI 3.4</li><li>- Wooden Toggles shall conform to CI 3.5</li><li>- Navy Blue Colour Embroidery Thread, if used for the Asoka Chakra, shall conform to Variety No. 7 of IS 1803:1973</li></ul> |
| b) | समूहिकरण दिशा निर्देश<br>Grouping Guidelines | : | Not applicable                                                                                                                                                                                                                                                                                                                                                                                                                                                |

|    |                                                                                                                                                                                                      |                                           |                                                                                                                                               |
|----|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------|
| c) | नमूने का परिमाण<br>Sample Size                                                                                                                                                                       | :                                         | 1 flag with all accessories                                                                                                                   |
| 3. | परीक्षण उपकरणों की सूची<br>List of Test Equipment                                                                                                                                                    | :                                         | Please refer Annex –A                                                                                                                         |
| 4. | निरीक्षण व परीक्षण स्कीम<br>Scheme of Inspection and Testing                                                                                                                                         | :                                         | Please refer Annex - B                                                                                                                        |
| 5. | एक दिन में संभावित परीक्षण<br>Possible tests in a day                                                                                                                                                | :                                         | Dimensions of flags, wooden toggles and Asoka Chakra; Ends and Picks, Weight, breaking load, color fastness of light, pH, dimensional changes |
|    |                                                                                                                                                                                                      |                                           |                                                                                                                                               |
| 6. | लाइसेन्स का कार्यक्षेत्र/Scope of the Licence :                                                                                                                                                      |                                           |                                                                                                                                               |
|    | IS 1:1968 के अनुसार मानक मुहर का उपयोग करने के लिए लाइसेन्स निम्नलिखित कार्यक्षेत्र के लिए प्रदान किया जाता है<br>Licence is granted to use Standard Mark as per IS 1:1968 with the following scope: |                                           |                                                                                                                                               |
|    | Name of the product                                                                                                                                                                                  | The National Flag Of India (Cotton Khadi) |                                                                                                                                               |
|    | Sizes                                                                                                                                                                                                | Flag Size Number as per Table 5           |                                                                                                                                               |

ANNEX-A

LIST OF TEST EQUIPMENTS

***Major test equipment required to test as per the Indian Standard***

| Sl. No. | Tests used in with Clause Reference                                                                     | Test Equipment                                                                                                                                                             |
|---------|---------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1.      | Count of Yarn and Ends and Picks of Cotton Khadi Bunting, CI 3.1; Cotton Khadi Duck, CI 3.2.2 (IS 1963) | Thread counting glass                                                                                                                                                      |
| 2.      | Weight of Cotton Khadi Bunting, CI 3.1.2; Cotton Khadi Duck, CI 3.2.2 (IS 1964)                         | Weighing Balance, Steel scale, Flat smooth table                                                                                                                           |
| 3.      | Colour Fastness to Light of Cotton Khadi Bunting, CI 3.1.2.3 (IS/ISO 105-G02 : 1993)                    | Xenon Arc Apparatus : UV Light source , filter, Opaque cardboard, Grey scale for assessing change in colour                                                                |
| 4.      | pH value of Cotton Khadi Bunting ( IS 1390)                                                             | Glass stopper flask, mechanical shaker , pH meter, beakers, balance, Erlenmeyer flask, reflux condenser                                                                    |
| 5.      | Breaking load on 50 x 200 mm strips of cotton khadi duck, CI 3.2.2 ( IS 1969)                           | Tensile testing machine with suitable clamps                                                                                                                               |
| 6.      | Dimensional Changes of Cotton Khadi Bunting, CI 3.1.2.3 (IS 2977)                                       | Container, steel rule, 2 pieces of glass plate, sodium hexametaphosphate, an efficient wetting agent (sodium di- octyl sulfosuccinate or dodecyl benzene sodium succinate) |
| 7.      | Breaking Load of Hemp Cordage CI 3.4.2                                                                  | Constant Rate of Traverse horizontal type rope strength testing machine, conditioning chamber                                                                              |
| 8.      | Dimensions of the flag, wooden toggles etc.                                                             | Steel Scale, Measuring Tape                                                                                                                                                |

*The above list is indicative only and may not be treated as exhaustive.*

**ANNEX – B**  
**SCHEME OF INSPECTION AND TESTING**

**1. LABORATORY** - A laboratory shall be maintained which shall be suitably equipped (as per the requirement given in column 2 of Table 1) and staffed, where different tests given in the specification shall be carried out in accordance with the methods given in the specification.

**1.1** The manufacturer shall prepare a calibration plan for the test equipment.

**2. TEST RECORDS** – The manufacturer shall maintain test records for the tests carried out to establish conformity.

**3. PACKING AND MARKING** – The Standard mark shall, be applied to each National Flag on the cotton duck sleeve provided always that each National Flag, to which this Mark is thus applied conforms to the specification in every requirement.

3.1 Packing and Marking shall be done as per the provisions of the Indian Standard. In addition, the following information should be given on the sleeve of each National Flag;

a) Identification in code or otherwise to enable the period, on quarterly basis, of manufacture of a lot to be traced back to factory records.

b) BIS website details : For details of BIS certification please visit [www.bis.gov.in](http://www.bis.gov.in)

**4. CONTROL UNIT** – All the national flags of the same size produced in a day shall constitute a control unit.

**5. LEVELS OF CONTROL** - The tests as indicated in column 1 of Table 1 and the levels of control in column 3 of Table 1, shall be carried out on the whole production of the factory which is covered by this plan and appropriate records maintained in accordance with paragraph 2 above.

5.1 All the production which conforms to the Indian Standards and covered by the licence should be marked with Standard Mark.

**6. REJECTIONS** – Disposal of non-conforming product shall be done in such a way so as to ensure that there is no violation of provisions of BIS Act, 2016. A separate record shall be maintained giving information on quantity and control unit number, as applicable, relating to all such rejections/defective/substandard material of the production not conforming to the requirements of the Specification and the method of its disposal. Such material shall in no case be stored together with that conforming to the Specification. The Standard Mark (if already applied) on rejected material should be defaced.

**TABLE 1**  
**LEVELS OF CONTROL**

| (1)          |                                                                  |             |           | (2)                                                                             | (3)                            |                                                                                                                                                                                                                    |         |
|--------------|------------------------------------------------------------------|-------------|-----------|---------------------------------------------------------------------------------|--------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|
| Test Details |                                                                  |             |           | Test equipment requirement<br>R: required (or)<br>S: Sub-contracting permittedS | Recommended Levels of Control  |                                                                                                                                                                                                                    |         |
| Clause       | Requirement                                                      | Test Method |           |                                                                                 | No. of Sample                  | Frequency                                                                                                                                                                                                          | Remarks |
|              |                                                                  | Clause      | Reference |                                                                                 |                                |                                                                                                                                                                                                                    |         |
| 3.1          | Constructional details of cotton Khadi bunting;<br>Count of warp | 3.1         | IS 1:1968 | S                                                                               | Each consignment               | In case a test certificate is received with each consignment of cotton bunting received from its suppliers towards its conformance to the requirements of the specification, no further testing would be required. |         |
|              | Count of weft                                                    | -do-        | -do-      |                                                                                 |                                |                                                                                                                                                                                                                    |         |
|              | End per dm                                                       |             | IS:1963   |                                                                                 |                                |                                                                                                                                                                                                                    |         |
|              | d) Picks per dm                                                  |             | -do-      |                                                                                 |                                |                                                                                                                                                                                                                    |         |
|              | e) Weight per m <sup>2</sup>                                     |             | IS: 1964  |                                                                                 |                                |                                                                                                                                                                                                                    |         |
|              | f) Breaking load on strips<br>Warp way)<br>Weft way)             |             | IS: 1969  |                                                                                 |                                |                                                                                                                                                                                                                    |         |
| 3.1.2.1      | Colours of Bunting<br>(India Saffron, India Green and White)     | 3.1.2.2     | IS 1:1968 | R                                                                               | One Each batch of bunting dyed | -                                                                                                                                                                                                                  |         |

|                         |                                                      |      |                                    |   |    |                                                          |                                                                                                                                                                                                                    |
|-------------------------|------------------------------------------------------|------|------------------------------------|---|----|----------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 3.1.2.3<br>&<br>Table 2 | i) a) Colour Fastness of Bunting to Light            |      | IS/ISO 105 B-01 or IS/ISO 105 B-02 | S | 02 | Each batch of bunting dyed in one operation              | In case a test certificate is received with each consignment of cotton bunting received from its suppliers towards its conformance to the requirements of the specification, no further testing would be required. |
|                         | i) b) Colour Fastness of Bunting to Light to washing |      | IS/ISO 105-C10                     | S | 01 | -do-                                                     |                                                                                                                                                                                                                    |
|                         | ii) pH value of bunting                              |      | IS 1390                            | S | 01 | Each batch of bunting dyed or bleached in one operation. |                                                                                                                                                                                                                    |
|                         | iii) Dimensional Changes of bunting                  |      | IS 2977                            | S | 01 | Each batch of bunting supplied                           |                                                                                                                                                                                                                    |
| 3.2&<br>Table 3         | Constructional details of Cotton Khadi Duck          | 3.1  | IS 1:1968                          | S | 01 | Each consignment supplied                                | In case a test certificate is received with each consignment of cotton duck received from its suppliers towards its conformance to the requirements of the specification, no further testing would be required.    |
|                         | a)Count of warp                                      |      |                                    |   |    |                                                          |                                                                                                                                                                                                                    |
|                         | b) Count of weft                                     | -do- | -do-                               |   |    |                                                          |                                                                                                                                                                                                                    |
|                         | c) End per dm                                        |      | IS:1963                            |   |    |                                                          |                                                                                                                                                                                                                    |
|                         | d) Picks per dm                                      |      | -do-                               |   |    |                                                          |                                                                                                                                                                                                                    |
|                         | e) Weight per m <sup>2</sup>                         |      | IS: 1964                           |   |    |                                                          |                                                                                                                                                                                                                    |
|                         | f) Breaking load on strips<br>Warp way)<br>Weft way) |      | IS: 1969                           |   |    |                                                          |                                                                                                                                                                                                                    |

|                                        |                                |                                      |           |   |           |                   |  |
|----------------------------------------|--------------------------------|--------------------------------------|-----------|---|-----------|-------------------|--|
| 4.1&Table 5<br>of<br>amendment<br>no 2 | Size & Dimensions of<br>flags, | Fig 2 & 3                            | IS 1:1968 | R | Each flag | Each Control Unit |  |
| 4.3 &Table 6                           | Asoka Chakra                   | 4.3 &Table<br>6 read with<br>Fig. 4. | -do-      | R | -do-      | -do-              |  |

Note-1: Whether test equipment is required or sub-contracting is permitted in column 2 shall be decided by the Bureau and shall be mandatory. Sub-contracting is permitted to a laboratory recognized by the Bureau or Government laboratories empaneled by the Bureau

Note-2: Levels of control given in column 3 are only recommendatory in nature. The manufacturer may define the control unit/batch/lot and submit his own levels of control in column 3 with proper justification for approval by BO Head.