



उत्पाद मैनुअल
TEXTILES - VEST, COTTON, PLAIN (SINGLE JERSEY) KNITTED
IS 4964:2013 के अनुसार

PRODUCT MANUAL
FOR TEXTILES - VEST, COTTON, PLAIN (SINGLE JERSEY) KNITTED
ACCORDING TO IS 4964:2013

विभिन्न उत्पादों के लिए भारतीय मानक ब्यूरो (अनुरूपता मूल्यांकन) विनियम, 2018 की योजना- I के तहत प्रमाणन के संचालन में अभ्यास और पारदर्शिता के संचालन में पारदर्शिता सुनिश्चित करने के लिए इस उत्पाद मैनुअल का उपयोग सभी क्षेत्रीय / शाखा कार्यालयों और लाइसेंसधारियों द्वारा संदर्भ सामग्री के रूप में किया जाएगा। दस्तावेज़ का उपयोग बीआईएस प्रमाणन लाइसेंस/प्रमाणपत्र प्राप्त करने के इच्छुक संभावित आवेदकों द्वारा भी 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 Product	:	Textiles - Vest, Cotton, Plain (Single Jersey) Knitted
	शीर्षक Title	:	IS 4964:2013
	संशोधनों की संख्या No. of amendments	:	NIL
2.	नमूना दिशानिर्देश Sampling Guidelines		
a)	कच्चा माल Raw material	:	Fabric used to manufacture the vest shall conform to Clause 4.1 of IS 4964:2013
b)	समूहीकरण दिशानिर्देश Grouping Guidelines	:	Samples of vest of each design and shape as per Cl. 4.2 of IS 4964:2013, of any size, shall be tested to cover the corresponding design/shape(s) of all sizes in the scope of licence. Scope shall be restricted based on manufacturing and testing capability of the manufacturer
c)	नमूने का आकार Sample Size	:	3 vests
3.	परीक्षण उपकरणों की सूची List of Test Equipment	:	Please refer Annex-A

4.	निरीक्षण और परीक्षण की स्कीम Scheme of Inspection and Testing	:	Please refer Annex-B
5.	एक दिन में संभावित परीक्षण Possible tests in aday		
	All tests		
6.	लाइसेंस का दायरा/ Scope of the Licence:		
	“Licence is granted to use Standard Mark as per IS 4964:2013 with the following scope:		
	Name of the product	Textiles - Vest, Cotton, Plain (Single Jersey) Knitted	
	Design and Shape	Round-neck sleeveless (RN), and short sleeves (RNS)/ V-neck, sleeveless (VN), and short sleeves (VNS)/ Round-neck short sleeves with welts (RNW)	
	Sizes	.. in cm	

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

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/Chemical
1.	Dimensions, Cl 4.1, 5.1	Flat Table, Steel Scale, Vernier Calipers
2.	Mass, Cl 4.1, 5.1	Weighing Balance, Conditioning Chamber, Hygrometer, Cutting implements
3.	pH value of aqueous extract, Cl 5.2	Stoppered glass or polypropylene flasks Mechanical shaker Beakers, chemically resistant, with a capacity of 150 ml Rods, chemically resistant pH-meter, with a glass electrode, capable of measuring to at least 0,1 pH-units Balance, accurate to 0,01 g. 1 l volumetric flasks, of grade A quality Distilled or deionized water, of at least grade 3 Potassium chloride solution, 0,1 mol/l Buffer solutions, (Ref: IS 1390:2019/ISO 3071:2005)
4.	Colour Fastness to Light, Cl 5.2	Xenon-arc apparatus as per IS/ISO 105-B02 : 2014
5.	Colour Fastness to Washing, Cl 5.2	Suitable mechanical laundering device Balance accurate to 0.01 g Mechanical Stirrer Non corrodible (Stainless Steel) Balls Means of Heating soap solution Soap Sodium Carbonate Soap Solution Grade 3 Water Adjacent fabrics/Multifibre adjacent fabric (Ref: IS/ISO 105-C10:2006)
6.	Colour Fastness to Perspiration (Acidic and Alkaline), Cl 5.2	Test devices, Oven Alkaline solution Acid solution Adjacent fabrics Grey scale for assessing change in colour Grey scale for assessing staining Spectrophotometer or colorimeter for assessing change in colour and staining A set of 11 glass or acrylic resin plates

		Flat-bottomed dish made of inert materials. (Ref: IS/ISO 105-E04 : 2013)
7.	Colour Fastness to Rubbing, CI 5.2	Suitable testing device Soft-back waterproof abrasive paper, or grating of stainless steel wire 1 mm in diameter and mesh width about 20 mm. Rubbing cotton cloth Grey Scale for evaluating staining (Ref: IS/ISO 105-X12 : 2016)

The list above is indicative only and may not be considered as exhaustive

ANNEX B

SCHEME OF INSPECTION AND TESTING

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

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

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

3. **PACKING AND MARKING** - The Standard Mark as given in the Schedule of the licence shall be incorporated legibly and indelibly on a cloth label securely stitched to each vest at the inside of the neck portion and on the labels printed on the boxes, provided always that the material so marked conforms to each requirement of the specification.

3.2 The vest(s) shall be packed in polyethylene or polypropylene bags and in boxes, as required by the buyer. However, each box shall also be marked with the following:

- a) Name of the material
- b) Count of yarn and type (carded and bombed)
- c) Designation of the fabric
- d) Vest design and Size, in cm
- e) Quantity per box
- f) Manufacturer's Name or Trade Mark
- g) The batch or control unit number and/or month and year of manufacture, and
- h) BIS licence number and "For BIS certification details please visit www.bis.gov.in"

5. **CONTROL UNIT-** For the purpose of this scheme, all the cotton vests of the same design, shape and size and manufactured from the same roll of fabric at a time shall be taken as one control unit.

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

6.1 All the production which conforms to the Indian Standard and covered under the scope of this licence shall be marked with the Standard Mark.

7. **REJECTION** - 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.

TABLE 1
LEVELS OF CONTROL

(1)				(2)	(3)		
Test Details				Test equipment requirement R: required (or)S: Sub-contracting permitted	Levels of Control		
Cl.	Requirement	Test Methods Clause Reference			No. of Sample	Frequency	Remarks
4.1	Fabric	4.1 4.1.1 4.1.2 4.1.3	IS 4964:2013	S	5	Each roll of plain or rib knitted fabric manufactured from same count of yarn	
4.2	Design & Shape	4.2	-do-	R	5	Each Control Unit	
4.3	Seams and stitches	4.3	-do-	R	10	Each Control Unit	
4.4	Knitted fabric from which vest is tailored	4.4	-do-	R	3	Each Control Unit	
4.5	Printing	4.5	-do-	R		Each cotton vest	
4.6	Freedom from defects	4.6	-do-	R		Each cotton vest	
5.1	Dimensions	5.1	-do-	R	3	Every seventh control unit	

5.2	Dimensional change (due to relaxation) Wales & Courses	5.2	IS 4964:2013 & Table 4	R	2	Each control unit	
5.2	pH value of aqueous extract (cold method)		IS 1390:2019	R	2	Each control unit	
5.2	Colour Fastness to Light		IS/ISO 105-B02 : 2014	S	2	Once in six months	
5.2	Colour Fastness to Washing		IS/ISO 105-C10:2006	R	2	Each control unit	
5.2	Colour Fastness to Perspiration (Acidic and Alkaline)		IS/ISO 105-E04 : 2013	R	2	Each control unit	
5.2	Colour Fastness to rubbing		IS/ISO 105-X12 : 2016	R	2	Each control unit	
6,7	Packing and Marking		IS 4964:2013	R	5	Each control unit	

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 empanelled 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.