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उत्पाद मैनुअल

Textiles Polyester Fibre Filled Pillow- Specification

IS 18930: 2024 के अनुसार

PRODUCT MANUAL

FOR Textiles Polyester Fibre Filled Pillow- Specification

ACCORDING TO IS 18930: 2024

विभिन्न उत्पादों के लिए भारतीय मानक ब्यूरो (अनुरूपता मूल्यांकन) विनियम, 2018 की योजना -I के तहत प्रमाणन के संचालन में एकरूपता और पारदर्शिता 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 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 uniformity 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.

1.	मानक संख्या IS No.	:	IS 18930:2024
	शीर्षक Title	:	Textiles- Polyester Fibre Filled Pillow- Specification
	संशोधनों की संख्या No. of amendments	:	NIL
2.	नमूना दिशानिर्देश Sampling Guidelines		
a)	कच्चा माल Raw material	:	Raw material shall be conforming to the requirements specified in clause 4.2 & 4.3 of IS 18930. <i>Compliance to the above may be established through supplier test certificate/test report from BIS recognized lab/empanelled lab or any other lab having accreditation as per IS/ISO/IEC17025 or in-house testing/combination thereof.</i> Note: This section indicates the requirements for raw material(if specified in the IS)for which compliance is to be established during Grant of Licence/Change in Scope of Licence/Factory Surveillance.
b)	समूहीकरण दिशानिर्देश Grouping Guidelines	:	Please refer to Annex-A

c)	नमूने का परिमाण Sample Quantity	:	8 Pillows Note: This section indicates the quantity of the sample of the product and/or the raw material (if applicable), required to be sent to the laboratory for testing, for the purpose of Grant of Licence/Change in Scope of Licence/Factory Surveillance (in case of market surveillance, effort may be made to procure the required quantity of product sample, as far as possible since raw material sample may not be available in market)
d)	परीक्षण अनुरोध में घोषित किए जाने वाले पैरामीटर Parameters to be Declared in Test Request	:	i) Type of Fabric ii) Filler iii) Pillow Size iv) Dying v) Optional Requirement Note: Apart from the above, any other requirements/parameters may also be declared as per the standard, as applicable.
3.	परीक्षण उपकरणों की सूची List of Test Equipment	:	Please refer to Annex-B
4.	निरीक्षण और परीक्षण की स्कीम Scheme of Inspection and Testing	:	Please refer to Annex-C
5.	एक दिन में संभावित परीक्षण Possible tests in a day		
	The following tests can be carried out in a day, provided the conditioned samples are available, where required: i) Picks/cm ii) Breaking Load iii) Tear Strength iv) pH value of aqueous extract v) Seam Strength vi) Colour fastness to saliva and perspiration, for dyed fabric only (Outer Protective Cover) vii) Hollowness viii) L Colour Value ix) Whiteness Index x) Casing Dimension and Fill Mass of Pillow xi) Hemming Note: This section is for the guidance of BIS Certification Officers/Technical Auditors of BIS Authorized Outside Surveillance Agencies(OSAs) during factory inspection to provide ready reference regarding the tests which can be witnessed during the inspection in the factory by the officer/auditor.		
6.	लाइसेंस का दायरा/Scope of the Licence: Licence is granted to use Standard Mark as per IS 18930: 2024 with the following scope:		
	Name of the product	Polyester Fibre Filled Pillow	
	Type of Fabric	Type 1/ Type 2/ Type 3/ Type 4	
	Dying	Dyed/Undyed	
	Filler	3 Denier/ 4 Denier/7 Denier/15 Denier	
	Pillow Size	1/2/3/4/5/6	
	Optional Requirement	With/Without Outer protective cover	

ANNEX-A

GROUPING GUIDELINES

1. **Based on the construction requirements, there are 4 types of fabrics defined in the standard:**
 - a) Type 1
 - b) Type 2
 - c) Type 3
 - d) Type 4
2. **Based on dyeing, Fabric may be either Dyed or Undyed.**
3. **Filling fibre (Filler) has been categorized into 4 Nominal Deniers:**
 - a) 3 Denier
 - b) 4 Denier
 - c) 7 Denier
 - d) 15 Denier
4. **Casing has been categorized into 6 Pillow sizes i.e. Pillow Size- 1, 2, 3, 4, 5 & 6.**
5. **Polyester Fibre Filled Pillows may be manufactured with/without Outer protective covers.**
6. **Considering the above, following grouping guidelines have been prepared for GOL/CSOL:**
 - a) Sample of each type of fabric shall be drawn and tested to be included in the scope of licence.
 - b) If sample of Dyed Fabric is tested, undyed fabric may also be included in the scope of licence.
 - c) Sample of each nominal denier shall be drawn and tested to be included in the scope of licence.
 - d) Sample of any size may be tested to cover all the pillow sizes in the scope of licence. However, Pillow sizes other than those specified in Table 5 of IS 18930: 2024 shall be tested separately to be included in the scope of licence.
 - e) If sample of Polyester Fibre Filled Pillow with Outer protective cover has been tested, then Polyester Fibre Filled Pillow without Outer protective cover may also be included in the scope of licence.
 - f) Scope of licence shall be restricted based on the manufacturing and testing facilities available.
 - g) During operation of licence, samples of each variety covered in the scope of licence, shall be tested in rotation, to the extent possible.

ANNEX-B

LIST OF TEST EQUIPMENTS

(INDICATIVE LIST, FOR GUIDANCE ONLY)

Sr No	Tests used in with Clause Reference	Test Equipment
1	Fiber Type, Clause 6.1 & Table 1	i) For Preliminary Identification - Alcohol 92%, - Phloroglucinol, - Hydrochloric acid, ii) For Physical Inspection - Compound Microscope (100X-500X), - Dissecting Needles, - Glass Slides, - Forceps, - Burner, - Stop watch, - Cover Glasses, - Cross-sectioning device, iii) By Staining Test or Dissolution test - Mixture of dyestuffs (e.g. Zinc Chlor-Iodide, Detex, Shirlastain A etc), known dyed samples - Or - Sulphur acid 80%, - Cuprammonium Hydroxide, - NaOH 5%, - Digital weighing Balance (LC $\pm 10\mu\text{g}$),
2	Count of Yarn, Clause 6.1 & Table 1	- An apparatus capable of measuring the straightened length of yarn in a horizontal or vertical direction provided with two yarn clamps/grips, each of which closes at its rear end first and when closed, has parallel gripping surfaces. - Weighing Balance
3	Ends/cm, Clause 6.1 & Table 1	METHOD A - BY TRAVERSING THREAD COUNTER - Humidity Chamber - Thread counter with microscope METHOD B - BY DISSECTION OF FABRIC - Clamps as per Clause 6.1.1 of IS 1963 - Forceps - Humidity Chamber

4	Picks/cm, Clause 6.1 & Table 1	METHOD A - BY TRAVERSING THREAD COUNTER - Humidity Chamber - Thread counter with microscope METHOD B - BY DISSECTION OF FABRIC - Clamps as per Clause 6.1.1 of IS 1963 - Forceps - Humidity Chamber
5	Mass, Clause 6.1 & Table 1	METHOD A — CONDITIONED MASS METHOD - Horizontal, Flat Smooth Table - Graduated Steel Scale - Balance - Humidity Chamber METHOD B — OVEN-DRY METHOD - Horizontal, Smooth Flat Table - Graduated Steel Scale - Drying Oven - Weighing Balance - T- Square
6	Breaking Load, Clause 6.1 & Table 2	- Tensile Testing Machine - Water Bath - Grade 3 water - Nonionic wetting agent - Conditioning chamber
7	Tear Strength, Clause 6.1 & Table 2	- Pendulum Testing Machine - Conditioning Chamber
8	Dimensional Change, Clause 6.1 & Table 2 & Clause 6.2 & Table 3	- Automatic Washing Machine-Type A - Reference detergent 2, 3 or 6 - Water - Ballasts - Conditioning Chamber
9	pH value of aqueous extract, Clause 6.1 & Table 2 & Clause 6.2 & Table 3	- Distilled or deionized water - Potassium chloride solution - Buffer solutions - Stoppered glass or polypropylene flasks - Mechanical shaker - Beakers and rods - pH Meter with a glass electrode - Weighing Balance - Volumetric Flask - Sample Preparation/Cutting Equipment

10	Colour Fastness (only for dyed fabric), Clause 6.1 & Table 2	Light: - Laboratory exposure devices (Weather-O-Meter/ Xenon Arc Light Tester) as per Cl. 5.2 of IS/ISO 105-B02 - Light Source (Xenon arc lamp), - Thermometer (Black-Standard Thermometer (BST) / Black-Panel Thermometer) - Humidity chamber - Covers - Colour Matching Lamps - Assessment cabinet - Sample mounting card - Assessment mask - Grey scale for assessing change in Colour - Blue wool reference materials (Cl 5.1) - Humidity test control fabric - Grade 3 water (Minimum) in accordance with ISO 3696 to maintain humidity Washing & Rubbing: - Suitable mechanical device (consisting of a water bath containing a rotatable shaft) in accordance with clause 4.1 of IS/ISO 105-C06 - Non-corrodible (stainless) steel balls ($\approx$ 6 mm in diameter) - Adjacent fabrics in accordance with clause 4.3 of IS/ISO 105-C06 - Detergent, without optical brightener (WOB) in accordance with clause 4.4 of IS/ISO 105-C06 - Sodium hypochlorite solution or lithium hypochlorite solution - Grade 3 water, complying with ISO 3696 - Grey scale for assessing change in colour as per ISO 105-A02 - Grey scale for assessing staining per ISO 105-A03 - Spectrophotometer or colorimeter for assessing change in colour and staining, complying with ISO 105-A04 and ISO 105-A05. Perspiration: - Test devices as per cl 4.1 of IS/ISO 105-E04 - Oven
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		- Alkaline (cl 4.3) and Acid (cl 4.4) solution as per of IS/ISO 105-E04 - Adjacent fabrics as per clause 4.5 of IS/ISO 105-E04 - 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
11	Seam strength, Clause 6.1 & Table 2	- CRE machine - Equipment for cutting test specimens and for fraying them to obtain the required width - Conditioning Chamber
12	Pilling resistance, Clause 6.1 & Table 2	- Martindale abrasion testing machine in accordance with clause 5.1 of IS 10971 (Part 2) - Drive - Counter, for counting the pilling rubs and measures to an accuracy of 1 rub - Pilling tables, each consisting of the following elements: a) pilling table; b) clamping ring; c) clamping mechanism to fasten the clamping ring - Test specimen holder guide plate - Test specimen holder - Loading pieces, comprising an additional loading piece in the form of a stainless-steel disc of mass (260 ± 1) g - Auxiliary device for test specimen mounting - Pilling table test specimen mounting weight, complete with handle, required for mounting the test specimen or abradant without folds or creases on the pilling table. The mounting weight mass is $(2,5 \pm 0,5)$ kg and diameter (120 ± 10) mm - Felt, in the form of circles as specified in ISO 12947-1 - Abradant
13	Areal Density (Outer Protective Cover, Clause 6.2 & Table 3	METHOD A — CONDITIONED MASS METHOD

		- Horizontal, Flat Smooth Table - Graduated Steel Scale - Balance - Humidity Chamber METHOD B — OVEN-DRY METHOD - Horizontal, Smooth Flat Table - Graduated Steel Scale - Drying Oven - Weighing Balance - T- Square
14	Hydrostatic Pressure head test (Outer Protective Cover), Clause 6.2 & Table 3	- Grade 3 water - Fabric Clamp - Hydrostatic machine - Manometer (for manual types of equipment that are not electronic) - Conditioning Chamber
16	Colour fastness to saliva and perspiration, for dyed fabric only (Outer Protective Cover), Clause 6.2 & Table 3	- Whatman Filter Paper No. 1 - Adhesive Tape, colorless, self-adhesive plastics tape, about 12 mm wide - Test Solutions as per CL 3.3 and 3.4 of IS 15626 - Non vacuum desiccator - Hot air oven suitable for maintaining temperature of $40 \pm 2^{\circ}\text{C}$
17	Fiber linear density, Clause 6.3 & Table 4	A. Method 1- Cut Fibre Bundles - Conditioning Chamber - Metallic frame - Fibre Cutter - Forceps, for collecting the fibres - Black Velvet Pad - Microbalance, suitable for weighing the bundles of fibres to an accuracy of 0.005 mg - Steel Comb - Magnifying Glass - Glass Slide B. METHOD 2 — VIBROSCOPE METHOD 1. Conditioning Chamber 2. Weighing Balance 3. Metallic frame 4. Vibroscope
18	CPCM, Clause 6.3 & Table 4	- Crimp Balance or equivalent crimp measuring equipment - Forceps - Velvet Board - Pretension weights

		- Supplementary weights - Facility for proper lamination - Magnifying glass - Conditioning/Humidity chamber - Vernier Calliper - Crimp Removal Load(50mg/Den) - Paper gum tag - Tweezer - Contrasting background - Micrometer(LC-0.01mm) - Stop watch
19	Hollowness, Clause 6.3 & Table 4	- Optical/Polarising Microscope, with proper Magnification - PC with Leica Software and Interface with Microscope and Camera - Metallic Slides, with slot for cross section preparation - Sharp Razor Blades
20	L Colour Value, Clause 6.3 & Table 4	- Colorimeter/spectrophotometer instrument - Square standard tiles (white, blue, yellow, pink, grey and green) with the instruments - Working standard white square plate - Pressure device or any other suitable device to keep the sample steady; e) Source of air at 2.10 kg/cm² ± 0.35 kg/cm² (regulated) - Sample holder with glass cover plate and clear plastic disc - Air blender
21	Whitness Index, Clause 6.3 & Table 4	- Colorimeter/spectrophotometer instrument - Square standard tiles (white, blue, yellow, pink, grey and green) with the instruments - Working standard white square plate - Pressure device or any other suitable device to keep the sample steady; e) Source of air at 2.10 kg/cm² ± 0.35 kg/cm² (regulated) - Sample holder with glass cover plate and clear plastic disc - Air blender
22	Finish Type, Clause 6.3 & Table 4	- XRF unit with a) X-ray fluorescence spectrometer (XRF);

		b) P- 10 carrier gas; c) Sample pellet; and d) Standard sample for calibration Carver hydraulic press/pellet press - Analytical balance – capable of weighing to an accuracy of 0.1 mg - Muffle Furnace – capable of maintaining temperature up to 700°C - Tongs - Heat Resistant Gloves - Bunsen Burner - Silica Triangle and Tripod PPEs like safety goggles, nose mask and apron - Crucible
23	Casing Dimension and Fill Mass of Pillow, Clause 6.4 & Table 5	- Measuring Scale - Weighing Scale
24	Compressive Strength, Clause 6.4.1	- Compression testing apparatus
25	Hemming, Clause 6.5	- Measuring Scale - Conditioning Chamber - Tensile Testing Machine - Drying Machine
26	Washing and drying of Pillow, Clause 6.6	- Wash Tube - Reference Detergent 1

ANNEX C

SCHEME OF INSPECTION AND TESTING

1. QUALITY ASSURANCE PLAN

1.1 It is expected that manufacturers (licensees/applicants) will implement a Quality Assurance Plan i.e. a plan of regular testing and in-process controls, designed to ensure that the product bearing the Standard Mark conforms to all requirements of the Indian Standard.

1.2 The manufacturers shall define a Quality Assurance Plan defining the control unit (i.e. lot/batch etc.) and the levels of control (i.e. the frequency and number of samples for conducting the different tests as per the Indian Standard) and submit the same to BIS Branch Office for information. The manufacturer shall comply with the same and maintain test records in accordance with para 2.4.

1.3 RECOMMENDED LEVELS OF CONTROL/CONTROL UNIT:

1.3.1 For the guidance of manufacturers, the recommended definition of control unit is: the entire quantity of the Polyester Fibre Filled Pillow With/Without Outer protective cover of a particular size manufactured using same Type of fabric & Filler Fibre in a day.

1.3.2 For the guidance of manufacturers in preparing the Quality Assurance Plan, recommended levels of control are given in **Table 1**.

1.3.3 The manufacturer shall ensure inspection and testing as per the Quality Assurance Plan submitted by them on the whole production of the factory which is covered by this plan. Alternatively, the manufacturer has the option of adherence to the quality plan as per levels of control recommended in column 3 of Table 1.

1.4 However, all manufacturers shall ensure compliance of their products to all the requirements of the Indian Standard.

2. ENSURING COMPLIANCE THROUGH TESTING- It is expected that manufacturers (licensees/applicants) will establish a suitably equipped and staffed in house laboratory (In house testing facility) for testing at least those parameters of the Indian Standard which require routine testing for ensuring quality of the product. This includes in-process controls as may be defined and put in place by the manufacturer and testing parameters/requirements which can only be performed in the factory.

2.1 For the guidance of manufacturers, Table 1 giving the recommended levels of control is given below. Column 2 of Table 1 indicates routine tests where test equipment is required in house as "R" or other tests which can be subcontracted as "S". Subcontracting is permitted to BIS recognized/empanelled laboratory or any other laboratory having valid NABL accreditation as per IS/ISO/IEC 17025.

2.2 For MSME manufacturers, the requirement of maintaining a laboratory/in-house testing facility for routine tests (indicated as "R" in Column 2 of Table 1) is also optional.

2.2.1 MSME manufacturers may utilize common cluster based facilities as per guidelines for the utilization of cluster based test facilities by MSMEs or the provisions of Sharing of testing facilities or get testing done from BIS recognized/empaneled laboratory or any other laboratory having valid NABL accreditation as per IS/ISO/IEC 17025.

2.3 Large Scale manufacturers shall maintain an in-house laboratory equipped at least with test facilities for routine tests (indicated as “R” in Column 2 of Table 1), where different tests given in the specification shall be carried out in accordance with the method given in the specification. They shall also implement a calibration plan for the in-house test equipment.

2.3.1 Alternatively, in lieu of an in-house laboratory, large scale manufacturers can also utilize the provisions of Sharing of testing facilities as per the Guidelines for Grant of Licence available on BIS website www.bis.gov.in. (Under Conformity Assessment>Product Certification Process). Even for subcontracted tests, provisions for sharing of testing facilities can be utilized.

2.4 TEST RECORDS- The manufacturers maintaining an in-house laboratory or utilizing common cluster based facilities or shared test facilities shall maintain test records for the tests carried out to establish conformity. For the tests being subcontracted to BIS recognized/empanelled laboratory or any other laboratory having valid NABL accreditation as per IS/ISO/IEC 17025, test reports issued by the laboratories shall be available for inspection by BIS.

3. PACKING AND MARKING - The Standard Mark as given in the Schedule of the licence shall be incorporated legibly and indelibly on each label, provided always that the material so marked conforms to each requirement of the specification.

3.1 Packing and Marking shall be done as per the Indian Standard.

3.2 Additional Marking requirements: The material shall also be marked with the following additional requirement on each label:

a) “For BIS certification details please visit www.bis.gov.in”

4. REJECTION - All the production which conforms to the Indian Standard and covered under the scope of this licence shall be marked with the Standard Mark. 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
(ONLY FOR GUIDANCE PURPOSE)

(1)				(2)	(3)		
Test Details				Test equipment requirement R: required (or) S:Sub-contracting permitted	Levels of Control		
Cl.	Requirement	Test Methods			No. of Sample	Frequency	Remarks
		Clause	Reference				
4	Manufacture	4	IS 18930: 2024	R	Firm to have adequate in-process controls to check compliance of this parameter to the requirements specified in the Indian Standard. However, appropriate records shall be maintained by the manufacturer for evidence of conformity.		
5	Workmanship and Finish	5	IS 18930: 2024	R			
6.1 & Table 1	Casing Fabric General Requirements						
-do-	Fiber Type	--	IS 667	S	One	Once a month Or Whenever there is change in raw material or supplier	
-do-	Count of Yarn	--	IS 3442	R	One	Firm to have adequate in-process controls to check compliance of this parameter as per the tolerances given in the Indian Standard. However, appropriate records shall be maintained by the manufacturer for evidence of conformity.	
-do-	Ends/cm & Picks/cm	--	IS 1963	R	One		
-do-	Mass	--	IS 1964	R	One		
6.1 & Table 2	Casing Fabric Performance Requirement						
-do-	Breaking Load	--	IS 1969 (Part 1)	R	One	Each control unit	
-do-	Tear Strength	--	IS 6489 (Part 1)	R	One	Each control unit	
-do-	Dimensional Change	--	IS 15370/ISO 6330 Type A (6N)	R	One	Once a week	
-do-	pH value of aqueous extract	--	IS 1390	R	One	Each control unit	

-do-	Fiber linear density	--	IS 10014 (Part 2)	R	One	Each control unit	
-do-	CPCM	Annex C	IS 17263	R	One	Each control unit	
-do-	Hollowness	Annex B	IS 17263	R	One	Each control unit	
-do-	L Colour Value	Annex J	IS 17263	R	One	Each control unit	
-do-	Whitness Index	Annex J	IS 17263	R	One	Each control unit	
-do-	Finish Type	Annex G	IS 17263	S	One	Once in a month Or Whenever there is change in raw material or supplier	
6.4 & Table 5	Casing Dimension and Fill Mass of Pillow	Annex B	IS 18930	R	Firm to have adequate in-process controls to check compliance of this parameter as per the tolerances given in the Indian Standard. However, appropriate records shall be maintained by the manufacturer for evidence of conformity.		
6.4.1	Compressive Strength	Annex C	IS 18930	R			
6.5	Requirements for Hemming	--	IS 18930	R			
6.6	Washing & drying of pillow	Annex D	IS 18930	R			