उत्पाद मैन्युअल
आई एस 17632:2022 के अनुसार
सामान्य कार्यों के लिए कुर्सियाँ और स्टूल के लिए

दस्तावेज़ संख्या – पीएम/आईएस 17632/1/दिसंबर 2022

भारतीय मानक ब्यूरो की स्कीम-I (अनुरूपता मूलयाांकन) विनियम , 2018 के तहत यह उत्पाद मैन्युअल प्रमाणीकरण के प्रचालन में रीति और पारिर्शिता की सुसंगतता सुनिश्चित करने के लिए सभी क्षेत्रीय/शाखा कार्यालयों और लाइसेंसी द्वारा संदर्भ सामग्री के रूप में उपयोग किया जाएगा। बीआईएस प्रमाणीकरण लाइसेंस/ प्रमाणपत्र प्राप्त करने के इच्छुक भावी आवेदकों द्वारा भी इस दस्तावेज़ का उपयोग किया जा सकता है ।

PRODUCT MANUAL FOR
GENERAL PURPOSE CHAIRS AND STOOLS
ACCORDING TO IS 17632:2022

Document No.- PM/ IS 17632/1/Dec 2022

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.

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1.	**Product**	:	IS 17632:2022
	Title	:	General Purpose Chairs and Stools
	No. of Amendments	:	Nil
2.	**Sampling Guidelines:**		
a)	**Raw material**	:	-
b)	**Grouping guidelines**	:	Please refer ANNEX – A
c)	**Sample Size**	:	• 2 Chairs/Stools – For Dimensional and Safety requirements (clause 4, 5 & 7) • Material cut panels, Fabric & Leather pieces – For Surface Performance tests (clause 6)
3.	**List of Test Equipment**	:	Please refer ANNEX – B
4.	**Scheme of Inspection and Testing**	:	Please refer ANNEX – C
5.	**Possible tests in a day:**		
	Design and Workmanship (Cl 4) Dimensions (Cl 5) Stability test and Strength test (Cl 7.2 & 7.3)		
6.	**Scope of the Licence:**		
	Licence is granted to use Standard Mark as per IS 17632:2022 with the following scope:		

Name of the product	General Purpose Chairs and Stools
Type of Product	Chairs/ Stools
Design/ Model Number	

ANNEX A

Grouping Guidelines

1. IS 17632:2022 covers the requirements of General Purpose Chairs and Stools. The Standard applies to completely manufactured/ fabricated General Purpose Chairs and Stools as well as ready-to-assemble units. The design/ model shall be declared by the manufacturer.

2. The guidelines given below shall be followed for GoL/ CSoL:

   General Purpose Chairs or Stools of each design/model number shall be tested to cover that particular design/model number of the Chairs or Stools.

3. The design/model declared by manufacturer shall contain the details of principle materials of chairs and stools (e.g. wooden chair/stool, steel chair/stool, plastic chair/stool, etc.). The purpose of declaring the principle material is to identify the material of product covered under licence scope. Each design/model shall be accompanied with drawing and photograph of the product.

4. The Firm shall declare the varieties of work chairs they intend to cover in the Licence. The Scope of Licence may be restricted based on the manufacturing and testing capabilities of the manufacturer.

5. During the operation of the Licence, BO shall ensure that all varieties covered in the Licence are tested in rotation, to the extent possible.

ANNEX- B

List of Test Equipment

Major test equipment required to test as per the Indian Standard

Sl. No.	Tests used in with Clause Reference	Test Equipment
1	Dimensions (clause 5)	- Micrometer, Vernier caliper - Measuring tape - Steel scale - Angle protractor
2	Surface Performance (Tests on rigid surfaces of materials)	
	Resistance to mechanical damage	- As per IS 17641:2021, or, as per Annex B-2 of IS 17637:2021
	Pencil hardness	- as per Annex C-1 of IS 17637:2021
	Resistance to wet heat	- Air conditioner, humidifier & hygrometer - as per Clause 5 of IS 17639:2021
	Resistance to dry heat	- as per Clause 5 of IS 17638:2021
	Resistance to marking by cold liquids	- as per Clause 3 of IS 17640:2021
	Resistance to marking by cold oils and fats	- as per Clause 3 of IS 17640:2021
	Adhesive performance	- as per Annex D-2 of IS 17637:2021
3	Surface Performance (Fabric & leather (synthetic & Natural)	
	Breaking load	- as per IS 1969(Part 1) or IS 7016 (Part 2)
	Elongation at break	- as per IS 1969(Part 1) or IS 7016 (Part 2)
	Tear strength for fabric and leather	- as per IS 6489 (Part 1) IS 7016 (Part 3/Sec 1) or - IS 7016 (Part 3/Sec 2)
	Colour fastness to light for fabric and leather	- as per IS/ISO 105-B02
	Colour fastness to rubbing for fabric and leather	- as per IS/ISO 105-X12
	Colour fastness to perspiration	- as per IS/ISO 105-E04
	Colour fastness to water for fabric and leather	- as per IS/ISO 105- E01
	Pilling resistance	- as per IS 10971 (Part 1) or (Part 2)
	Coating adhesion strength	- as per IS 7016 (Part 5)
	Seam slippage	- as per IS/ISO 13936-2
	Resistance to damage by flexing	- as per IS 7016 (Part 4)
	Abrasion resistance	- as per IS 12673 (Part 2)
	Bursting strength	- as per IS 1966 (Part 1)
	Resistance to cold	- as per IS 1259
	Tear strength for natural leather	- as per IS 5914

	Flexing endurance	- as per IS 5914
	Finish adhesion	- as per IS 6191 (Part 5)
	Colour fastness to artificial light	- as per IS/ISO 105 B02
	Colour fastness to rubbing for natural leather	- as per IS 6191 (Part 4)
	Colour fastness to water spotting	- as per IS 6191 (Part 1)
	Water vapour permeability	- as per IS 5914
	Colour fastness to water for natural leather	- as per IS 6191 (Part 2)
Tests on Furniture -		
4	Stability test (Clause 7.3)	- Test surface as per Clause B-2 of IS 17632 - Stops as per Clause B-3 of IS 17632 - Seat-Loading Pad as per Clause B-4 of IS 17632 - Smaller Seat-Loading Pad as per Clause B-5 of IS 17632 - Local Loading Pad as per Clause B-6 of IS 17632 - Back-Loading Pad as per Clause B-7 of IS 17632 - Foam for Facing Loading Pad as per Clause B-8 of IS 17632 - Seat Impactor as per Clause B-9 of IS 17632 - Impact Hammer as per Clause B-10 of IS 17632
5	Static-Load test (Clause 7.4)	
6	Durability test (Clause 7.5)	

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

ANNEX C

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. LABELLING AND MARKING – As per the requirements of IS 17632:2022.

4. CONTROL UNIT – General purpose Chairs/ Stools of the same design/model number manufactured from the same materials and same consignment of materials, in a week under similar conditions of manufacturing 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 2.0 above.

5.1 All the production which conforms to the Indian Standard 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.

TABLE 1

(1)				(2)	(3)		
Test Details				**Test equipment requirement** R: Required (or) S:Subcontracting permitted	**Levels ofControl**		
Cl.	**Requirement**	**Test Methods**			**No. of Sample**	**Frequency**	**Remarks**
		Clause	**Reference**				
4	Design and workmanship	4	IS 17632	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.		
5	Dimensions	-	IS 3663	R			
6	**Surface performance (of materials)**						
	Rigid Surfaces	-	IS 17637	S	One	Each Consignment	The test samples for surface performance are to be tested on materials only, after their surface treatment and not on assembled chair
	Fabric and Synthetic Leather						
	Natural Leather						
7	**SAFETY REQUIREMENTS**						
7.2	**Stability Test**						
	Forwards Overbalancing and Sideways Overbalancing for Chairs without Arms	7.2.1	IS 17632	R	One	Each control unit	-
	Rearwards Overbalancing	7.2.2					
	Sideways Overbalancing for Chairs with Arms	7.2.3					
	Stools/ Poufs (All Directions)	7.2.4					

7.3	**Strength Test**						
	Static Load Test (Cl 7.3.1) -		IS 17632	R	One	Each control unit	-
	Seat static load test	7.3.1.1					
	Back static load test	7.3.1.2					
	Armrests/Wings sideways static load test	7.3.1.3					
	Arm downwards static load test	7.3.1.4					
	Leg forward static load test	7.3.1.5					
	Leg sideways static load test	7.3.1.6					
	Diagonal base load test	7.3.1.7					
	Foot rest static-load test	7.3.1.8					
	Impact Test (Cl 7.3.2) -						
	Seat impact test	7.3.2.1					
	Back impact test	7.3.2.2					
	Arm impact test	7.3.2.3					
	Drop test	7.3.2.4					
7.4	**Durability Tests**						
	Seat Fatigue Test	7.4.1	IS 17632	S	One	Once in three months	Each design/model shall be tested in rotation so that all the designs/ models are tested in a period of two years
	Back Fatigue Test	7.4.2					
	Arm Rest Durability	7.4.3					

Note-1: All applicable safety requirements as mentioned in clause 7 of IS 17632:2022 shall be carried out on the same sample and in the sequence as the clauses are numbered in this standard. Stability test shall be repeated also after durability test.

Note-2: Sub-contracting is permitted to a laboratory recognized by the Bureau or Government laboratories empanelled by the Bureau.

Note-3: 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.