



उत्पाद मैनुअल | PRODUCT MANUAL

Castors and Wheels- Requirements for Castors for Swivel Chairs

भा.मा. 17524: 2021 के अनुसार | ACCORDING TO IS 17524:2021

इस उत्पाद मैनुअल का उपयोग सभी क्षेत्रीय/शाखा कार्यालयों और लाइसेंसधारियों द्वारा विभिन्न उत्पादों के लिए भारतीय मानक ब्यूरो (अनुरूपता मूल्यांकन) विनियम, 2018 की योजना-1 के अंतर्गत प्रमाणन के संचालन में कार्यप्रणाली की सुसंगतता और पारदर्शिता सुनिश्चित करने हेतु संदर्भ सामग्री के रूप में किया जाएगा। इस दस्तावेज़ का उपयोग बीआईएस प्रमाणन लाइसेंस/प्रमाणपत्र प्राप्त करने के इच्छुक भावी आवेदक भी कर सकते हैं।

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 license/certificate.

1.	भारतीय मानक / Indian Standard	:	IS 17524: 2021
	शीर्षक/ Title	:	Castor and Wheels requirements for Castor for Swivel Chairs
	संशोधनोंकीसंख्या / No. of Amendments	:	NA
2.	नमूनाकरणदिशानिर्देश /Sampling Guidelines:		
a)	कच्चा माल / Raw material	:	NA
b)	समूहीकरणदिशानिर्देश/ Grouping guidelines	:	Castors of each type (H, W, C and U) as given under Cl. 4.3 of IS 17524: 2021, shall be tested for Grant of licence/Change in Scope
c)	नमूनेका आकार / Sample Size	:	10 Pcs
3.	परीक्षण उपकरण की सूची / List of Test Equipment	:	Please refer ANNEX – A
4.	निरीक्षण और परीक्षण की योजना / Scheme of Inspection and Testing	:	Please refer ANNEX – B
5.	एक दिन में संभावित परीक्षण / Possible tests in a day:		Dimensions, Impact Performance, Electrical Resistance, Stem Retention, Rolling Resistance & Swivel Resistance Test
6.	लाइसेंस का दायरा / Scope of the Licence		
	“Licence is granted to use Standard Mark as per IS 17524: 2021 with the following scope:		
	Name of the product		Castor and Wheels requirements for Castor for Swivel Chairs
	Type		Type H / Type W/ Type C/Type U

ANNEX-A
List of Test Equipment

Indicative list of major test equipment required to test as per the Indian Standard (For guidance only)

Sr No	Tests used in with clause reference	Test equipment
1	Dimensions Test/Clause 4.4	Vernier Calliper, Micrometre, Steel Scale & Measuring Tape
2	Impact Performance/Clause 5.3	Measuring Tape, 5kg Weight, Stopwatch and Impact Performance Setup
3	Electrical Resistance/Clause 5.4	Instrument, having a nominal open circuit voltage of 500V d.c., preferably an insulation tester (ohm meter), or any suitable instrument known to give comparable results.
4	Contact Pressure/Clause 5.5	325N Load, Stopwatch, Graph Paper, Carbon Paper
5.	Stem Retention/Clause 5.6	Stem Retention Apparatus, Stopwatch
6	Static Load Performance/ 5.7	Weight (Test load of 800N), Stopwatch and Static Load Apparatus
7	Brake Performance (Type U Castors First Test)/ Clause 5.8	Brake performance apparatus with test loads of 60/120/150N
9	Dynamic Test/ Clause 5.9	Dynamic Testing Apparatus with Linear or Circular Motion, Two Metal Obstacles, Angle Protector, Timer
10	Long Distance Running/ Clause 5.10	Long Distance Running Test Apparatus with Linear or Circular Motion, Timer
11	Rolling Resistance Test/ Clause 5.11	Rolling Swivel resistance Apparatus
12	Swivel Resistance/ Clause 5.12	

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

ANNEX B

Scheme of Inspection and Testing

1. QUALITY ASSURANCE PLAN

1.1 It is expected that during operation of BIS licence, manufacturers will implement a Quality Assurance Plan (QAP) 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 (QAP) defining the control unit (i.e. lot/batch etc.), the levels of control (i.e. the frequency and number of samples for conducting the different tests as per the Indian Standard) and declare the arrangement for testing i.e. whether in-house or subcontracting/sharing for each applicable test and submit the same to BIS Branch Office for information. The manufacturer shall comply with the QAP and maintain test records in accordance with para 2.1.

1.3 RECOMMENDED LEVELS OF CONTROL/CONTROLUNIT:

1.3.1 For the guidance of manufacturers, the recommended definition of Control Unit is the quantity of the castors of same type manufactured from same consignment of raw material under identical condition of production 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**. Manufacturers have the discretion of declaring their own levels of control or accept the levels of control given in this document.

1.3.3 The manufacturer shall ensure inspection and testing as per the Quality Assurance Plan submitted for the whole production.

2. ENSURING COMPLIANCE THROUGH TESTING-Manufacturers shall ensure compliance of their products to all the requirements of the Indian Standard for which they may have in-house test facilities. However, there is no obligation to maintain in-house laboratory. Licensee may use alternative arrangements for tests of the production as per the declared QAP. Various alternatives are available for operation of BIS certification as given below and the relevant guidelines for availing such relaxations by the manufacturers, as amended from time to time, are to be referred:

- i) Shared testing resources like common facility,
- ii) Cluster based testing facility,
- iii) Sub-contracting to outside laboratories which may either be:
 - a) BIS recognised/empanelled laboratories, or
 - b) Any accredited laboratory as per ISO/IEC 17025

2.1 TEST RECORDS-The manufacturers shall maintain test records for the tests carried out (either in-house or at a sub-contracted or at shared test facility) to establish conformity of the product to the

Standard for operation of licence. For the tests being subcontracted or conducted at a shared test facility, test results issued by the laboratories or test facilities, shall be made available for inspection by BIS.

3. LABELLING, PACKING AND MARKING – Labelling, Packing and Marking shall be done as per IS 17524:2021. The Standard Mark as given in the Schedule of the licence shall be incorporated legibly and indelibly on the conforming goods.

3.1 Additional Marking Requirements: Additionally, the following shall also be marked on product or package:

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

4. REJECTION - 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 (Recommended levels of control- *For guidance only*)

(1)	(2)
Test Details	Levels of Control

Clause	Requirement	Test Methods		No. of Sample	Frequency	Remarks
		Clause	Reference			
4.4	Dimensions	4.4	17524:2021	1	Each Control Unit	
5.3	Impact Performance	4.12	ISO 22878: 2004	1	Each Control Unit	
5.4	Electrical Resistance	4.4	ISO 22878: 2004	1	Each Control Unit	
5.5	Contact Pressure	4.10	ISO 22878: 2004	1	Once in a Month	
5.6	Stem Retention	4.17	ISO 22878: 2004	1	Each Control Unit	
5.7	Static Load Performance	4.9	ISO 22878: 2004	1	Once in a Month	
5.8	Brake Performance (Type U Castors First Test)	4.11	ISO 22878: 2004	1	Each Control Unit	
5.8	Brake Performance (Type U Castors Second Test)	4.11	ISO 22878: 2004	1	Each Control Unit	
5.9	Dynamic	4.13	ISO 22878: 2004	2	Once in a Six Months	
5.10	Long Distance Running	4.14	ISO 22878: 2004	2	Once in a Six Months	
5.11	Rolling Resistance	4.15	ISO 22878: 2004	1	Once in a Month	
5.12	Swivel Resistance	4.16	ISO 22878: 2004	3	Once in a Month	