



उत्पाद मैनुअल
रोलिंग बेयरिंग - शूंडाकार रोलिंग बेयरिंग - शूंडाकार रोलर – विशिष्टि
आईएस 19382: 2025 के अनुसार

PRODUCT MANUAL FOR
Rolling Bearing-Taper Rolling Bearing-Tapered Rollers - Specification
as per IS 19382: 2025

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 19382: 2025
	शीर्षक Title	:	Rolling Bearing-Taper Rolling Bearing-Tapered Rollers Specification
	संशोधनों की संख्या No. of amendments	:	None
2.	नमूना दिशानिर्देश Sampling Guidelines		
a)	कच्चा माल Raw material	:	As per Cl. 6 of IS 19382: 2025
b)	समूहीकरण दिशानिर्देश Grouping Guidelines	:	Please refer ANNEX – A
c)	नमूने का परिमाण Sample Quantity	:	10 rollers
d)	परीक्षण अनुरोध में घोषित किए जाने वाले पैरामीटर Parameters to be Declared in Test Request	:	• Tolerance Grade • Nominal Diameter • Angle of Taper
3.	परीक्षण उपकरणों की सूची	:	Please refer ANNEX – B

	List of Test Equipment		
4.	निरीक्षण और परीक्षण की स्कीम Scheme of Inspection and Testing	:	Please refer ANNEX – B
5.	एक दिन में संभावित परीक्षण Possible tests in a day	:	All tests
6.	लाइसेंस का दायरा /Scope of the Licence:		
“License is granted to use Standard Mark as per IS 19382: 2025 with the following scope:			
Name of the product		Rolling Bearing-Taper Rolling Bearing-Tapered Rollers Specification	
Tolerance Grade		Grade I / Grade II / Grade III	
Nominal Diameter (D _w)		Frommm tomm	
Angle of Taper (2Φ)		(To be declared by the manufacturer)	
Nominal Length		(To be declared by the manufacturer)	

ANNEX -A
Grouping Guidelines

1. Rolling Bearing-Taper Rolling Bearing-Tapered Rollers as per IS 19382: 2025 are classified based on the following:

Tolerance Grade	Grade I / Grade II / Grade III
Nominal Diameter (D_w)	Frommm tomm
Angle of Taper (2Φ)	(To be declared by the manufacturer)
Nominal Length	(To be declared by the manufacturer)

2. For considering GoL / CSOL, samples of Tapered Rollers of each tolerance grade of largest nominal diameter and any angle of taper and length (as declared by the manufacturer) shall be tested.
3. However, the following relaxation may be considered:
- (i) If sample of rollers having Tolerance Grade - I is tested, Tolerance Grade – II and Tolerance Grade – III may be included in the scope of licence without further testing.
- (ii) For Tapered Rollers of Grade III tolerance grade, having nominal dia from 50 mm to 80 mm, additional testing for Residual Magnetism shall be carried out to cover the additional sizes in the scope of licence.
4. The Scope of License may be restricted based on the manufacturing and testing capabilities of the manufacturer.
5. During the operation of License, it shall be ensured that all the varieties of rollers covered in the License are tested in rotation, to the extent possible.

Note: Manufacturer shall submit the ‘Crowning on Outside Diameter’ details as per Cl. 8.3 of IS 19382: 2025.

ANNEX- B
LIST OF TEST EQUIPMENTS
(INDICATIVE LIST, FOR GUIDANCE ONLY)

Sl. No.	Tests used in with Clause Reference	Test Equipment
1	Material (Cl. No. 6)	Spectrometer, chemical analysis kit
2	Dimensions/Tolerances (Cl. No 5)	Sine Bar, Micrometer Roundness tester Taper gauge V-shaped block (rack/frame) Roundness Testing equipment Standard roller
3	Hardness (Cl. No 7)	Rockwell HRC tester (IS 1586-1), Vickers HV (IS 1501-1)
5	Surface Roughness (Cl. No. 8.2)	Profilometer, Surface roughness gauge meter (R_a meter)
6	Residual Magnetism (Cl. No. 8.4)	Gauss meter, Hall-effect meter, or other suitable magnetic field measurement device with a sensitivity (resolution) of at least 0.01 mT
7	Visual/Finish (Cl. No. 8.1)	Magnifying glass, defect inspection light

ANNEX C
SCHEME OF INSPECTION AND TESTING

1. LABORATORY - Manufacturers shall establish a suitably equipped and staffed in house laboratory (In-house testing facility) for testing of all parameters for ensuring quality of the product.

1.1 Subcontracting of tests on raw materials/components is permitted to BIS recognized/empanelled laboratory or any other laboratory having valid NABL accreditation as per IS/ISO/IEC 17025.

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

2 TEST RECORDS – The manufacturers shall maintain test records for the tests carried out to establish conformity of the product. For the tests of raw materials/components being subcontracted to BIS recognized/empaneled laboratory or any other laboratory having valid NABL accreditation as per IS/ISO/IEC 17025, test reports of raw materials issued by the laboratories shall be available for inspection by BIS.

3 PACKING, LABELLING AND MARKING – As per the requirement of Cl. 12 of IS 19382: 2025.

3.1 The Standard Mark, as given in the Schedule of the licence, shall be marked on and indelibly on the packaging of the Tapered Rollers provided always that the Cylindrical Rollers so marked conforms to each requirement of the specification.

3.2 In addition, the licence no. CM/L- and details of BIS website shall be marked at an appropriate place on product or package as follows:

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

4 RECOMMENDED LEVELS OF CONTROL/CONTROL UNIT:

4.1 Control Unit: For the guidance of manufacturers, the recommended definition of Control Unit: *Tapered Rollers of having same nominal dia, angle of taper, length and Tolerance grade manufactured in a day under similar process condition from the same consignment of raw materials* shall constitute a control unit.

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

4.3 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.

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

5. 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

(1)				(3)		
Test Details				Levels of Control		
Cl.	Requirement	Test Methods		No. of Sample	Frequency	Remarks
		Clause	Reference			
6	Materials	6	IS 19382	One	Each consignment	No further testing is required if accompanied with the Test Certificate or ISI marked.
5	Shape, Size and Tolerance	5, Table 1 & Annex B	IS 19382	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		
7	Hardness	7	IS 19382	One	Each Control Unit	
8	Finish					
8.1	Finish and Surface	8.1	IS 19382	Firm to have adequate in-process controls to check compliance of this parameter as per the tolerances given in the Indian Standard. Appropriate records shall be maintained by the manufacturer for evidence of conformity		
8.2	Roughness		IS 3073	One	Each Control Unit	
8.3	Crowning on Outside Diameter	8.3	IS 19382	Firm to have adequate in-process controls to check compliance of this parameter as per the tolerances given in the Indian Standard. Appropriate records shall be maintained by the manufacturer for evidence of conformity		
8.4	Residual Magnetism	8.4	IS 19382	One	Each Control Unit	