



**PRODUCT MANUAL FOR
CYCLE- RUBBER TUBES (MOULDED/JOINTED)
ACCORDING TO IS 2415:2025**

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.	Product	:	IS 2415:2025
	Title	:	Cycle- Rubber Tubes (Moulded/ Jointed)
	No. of Amendments	:	One
2.	Sampling Guidelines:		
a)	Raw material	:	-
b)	Grouping guidelines	:	Please refer ANNEX – A.
c)	Sample Size	:	Two tubes along with valve
3.	List of Test Equipment	:	Please refer ANNEX – B.
4.	Scheme of Inspection and Testing	:	Please refer ANNEX – C.
5.	Requirements which can be tested in a day :		
	i) Dimensions (<i>Clause 5</i>) ii) Tensile Strength and Elongation at Break (<i>Clause 6.1</i>) iii) Tension Set (<i>Clause 6.2</i>) iv) Joint Adhesion Strength (<i>Clause 6.4</i>) v) Leak Test (<i>Clause 6.5</i>)		
6.	Scope of the Licence :		
	“Licence is granted to use Standard Mark as per IS 2415:2015 with the following scope:		
	Name of the product	Cycle Rubber Tube	
	Type	Class A , Class B, Class C , Class D	

ANNEX A

Grouping Guidelines

1. The parameters as given below shall be considered for grouping of Cycle Rubber Tubes as per IS 2415:2015 for GOL/Inclusion:
 - Class of Tubes- *Class A* or *Class B* or *Class C* or *Class D*
2. The Firm shall declare the Class of various tubes they intend to cover in the Licence. The firm shall also declare the sizes (along with tolerances) which are intended to be covered in the licence.
3. Tubes of different size designations shall be considered as one group, provided the Class remains the same. Any one Size from each Class shall be tested for covering all the sizes of tubes in that group.
4. 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 the types and sizes covered in the Licence are tested in rotation, to the extent possible.

ANNEX - BList of Test Equipment

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

Sl. No.	Tests used in with Clause Reference	Test Equipment
1.	Dimensions as per <i>clause 5</i>	a) Vernier Caliper b) Measuring Scale and Tape c) Dial Thickness Gauge
2.	Tensile Strength and Elongation at Break as per <i>Clause 6.1</i> Tension Set as per <i>Clause 6.2</i> Ageing Test as per <i>Clause 6.3</i> Joint Adhesion Strength as per <i>Clause 6.4</i>	a) Dumb-bell cutter b) Tensile testing machine c) Vernier caliper d) Extensometer e) Micrometer f) Hot air oven (thermostatically controlled) with Digital temperature indicator g) Stop watch
3.	Leak Test as per <i>clause 6.5</i>	a) Air Compressor or vacuum pump with pressure indicator b) Water tank of suitable size to accommodate inflated tube
4.	Valve Test as per <i>clause 6.6</i>	a) Ring Gauges b) Vernier Caliper
5.	Laboratory conditions for Tensile Test	a) Air conditioner

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

ANNEX - C**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/CONTROL UNIT:

1.3.1 For the guidance of the manufacturers, recommended definition of control unit is quantity of all tubes of the same type and size and manufactured from the material of the same consignment/ batch of rubber compound 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.

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

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

2.3 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 **PACKING, LABELLING AND MARKING** – As per the requirement of IS 2415:2025. The Standard Mark, as given in the Schedule of the licence, shall be marked on each Tube, provided always that the product thus marked conforms to all the requirement of the specification.

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 **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)				(3)		
Test Details				Levels of Control		
Cl.	Requirement	Test Methods		No. of Sample	Frequency	Remarks
		Clause	Reference			
5	Dimensions	5	IS 2415	One Tube	Every Control unit	
6.1	Tensile Strength and Elongation at Break	6.1 Table 3	IS 2415 IS 3400 (Part 1)	Two tubes	Every Control unit	In case of failure in any of the characteristics, two more tubes shall be tested for that characteristic. In case of any further failure, control unit shall be rejected.
6.2	Tension Set	6.2	IS 2415 IS 3400 (Part 13)	Two tubes	Once in a month	
6.3	Ageing Test	6.3	IS 2415 IS 3400 (Part 4)	Two tubes	Once in a month	In case of failure in any of the characteristics, two more tubes shall be tested for that characteristic. In case of any further failure, control unit shall be rejected.

6.4	Joint Adhesion Strength	6.4.1 6.4.1 6.4.3	IS 2415 IS 3400 (Part 1)	Two tubes	Once in a month	In case of failure in any of the characteristics, two more tubes shall be tested for that characteristic. In case of any further failure, control unit shall be rejected.
6.5	Leak Test	6.5	IS 2415		Each tube	
6.6	Valve Test		IS 532	—	Each Consignment	No further testing is required, if accompanied with test certificate or ISI marked
6.7	Manufacture and Workmanship	6.7.1 6.7.2 6.7.4	IS 2415	Firm should exercise adequate control so that whole production should meet the requirements. Records shall be maintained.		
		6.7.3	IS 2415			