

केन्द्रीय मुहर विभाग 2

हमारा संदर्भ: सीएमडी 2/16: 4824

26.03.2018

विषय: आई एस 4824 “टायारों के लिए बीड़ तार” के लिए परीक्षण एवं निरीक्षण की योजना (डॉक: एसटीआई/4824/1 मार्च 2018)।

सक्षम प्राधिकारी द्वारा अनुमोदित “टायारों के लिए बीड़ तार” (आई एस 4824:2006) के लिए परीक्षण एवं निरीक्षण की योजना, एसटीआई (डॉक: एसटीआई/4824/1 मार्च 2018) कार्यान्वयन हेतु संलग्न है।

(अरुण पुच्छकायला)
वैज्ञानिक सी

प्रमुख (सीएमडी-2) (हस्ता/-)

सभी क्षेत्रीय/शाखा/एमटीडी/एमएसडी कार्यालयों को परिचालित

प्रतिलिपि : आई टी एस को बीआईएस इंटरनेट पर अपलोड करने के लिए

CENTRAL MARKS DEPARTMENT-2

Our Ref: CMD-2/16:4824

26.03.2018

Subject: STI for Bead Wire for Tyres (Doc: STI /4824/1 March 2018) as per 4824:2006.

Please find enclosed Scheme of Testing & Inspection, STI, Doc: STI/4824/1 March 2018, for “Bead Wire for Tyres” as per IS 4824:2006, duly approved by Competent Authority for implementation.

(Arun Pucchakayala)
Scientist C

Head (CMD-2) (sd/-)

Circulated to All BOs/ROs/MTD/MSD

Copy to ITS: for hosting on intranet please.

**SCHEME OF TESTING AND INSPECTION
FOR CERTIFICATION OF
BEAD WIRE FOR TYRES
ACCORDING TO IS 4824:2006 (Second Revision)**

1. LABORATORY

1.1 A laboratory shall be maintained which shall be suitably equipped and staffed, where different tests given in the Specification shall be carried out in accordance with the methods given in the Indian Standard.

1.2 All test equipments shall be periodically checked, verified and calibrated and records of such checks/verification/calibration shall be maintained.

2. TEST RECORDS

2.1 All records of tests as per this Scheme of Testing and Inspection shall be kept in suitable forms.

2.2 Copies of any such records that may be required by BIS shall be made available at any time on request.

3. QUALITY CONTROL

3.1 It is recommended that, as far as possible, Statistical Quality Control (SQC) methods may be used for controlling the quality of the product during production as envisaged in this Scheme [see IS 397 (various parts)].

3.2 In addition, effort should be made to gradually introduce a Quality Management System in accordance with IS/ISO 9001.

4. STANDARD MARK

4.1 The Standard Mark, as given in Column (1) of the First Schedule of the licence, shall be stamped on a metal tag attached to each reel or drum on which bead wire for tyres is coiled, provided always that material to which this Mark is thus applied conforms to every requirement of the specification.

4.2 **Test Certificate** - For each consignment of BIS certified material conforming to IS 4824: 2006 there shall be a test certificate which shall contain the standard Mark, the batch number, finish, nominal size, delivery condition and the corresponding test results (as given in Annex-I)

5. MARKING

5.1 In addition to the Standard Mark, each coil of wire shall carry a tag or label affixed, which shall be legibly marked with the information as mentioned below:

- a) Name of the manufacturer and/or registered trade mark, if any;
- b) Size & Net Weight
- c) Month and year of manufacturer
- d) Identification code of coil
- e) Any other marking as required by the Law in force
- f) License Number (CM/L.....)
- g) For BIS Marks Licence, visit the website www.bis.gov.in

5.2 In case bead wires are supplied in reels, the information may be stenciled on both sides on the reels or stenciled on one side of the reel and metallic tag giving the information may be attached on the other side of the reel.

6. MANUFACTURE

6.1 In case process employed for the manufacture of steel by manufacturer is different to that mentioned in cl.5.1 of IS 4824:2006, prior approval of the purchaser should be obtained. Steel shall of killed type.

6.2 A sufficient discard shall be made from each ingot to ensure freedom from piping, segregation and other harmful defects.

6.3 The ingots, blooms or billets shall be rough machined, chipped, ground or otherwise prepared to remove all surface imperfections likely to produce defects in the finished wire.

7. LEVELS OF CONTROL

7.1 The tests as indicated in Table 1, and at the levels of control specified therein, shall be carried out on the whole production of the factory covered by this scheme and appropriate records maintained in accordance with clause 2 above and charts may be maintained as per clause 3 above. All the production which conforms to the Indian Standard and covered by this licence shall be marked with Standard Mark.

7.2 Control Unit: For the purpose of this Scheme, a control unit is defined as wire drawn of same diameter and type of finish manufactured under essentially similar conditions using steel of one cast in a day.

7.3 On the basis of the test results, decision regarding conformity or otherwise of the production shall be made.

7.4 In respect of all other clauses of the Specification and at all stages of manufacture, the factory shall maintain appropriate control and checks to ensure that the product conforms to various requirements of the Specification.

8. REJECTIONS

8.1 A separate record shall be maintained giving information relating to the rejection of the production not conforming to the requirements of the Specification and the method of disposal. Such material shall in no case be stored together with that conforming to the Specification. The Standard Mark (if already applied) on rejected material shall be defaced.

9. SAMPLES

9.1 The licensee shall supply, free of charge, the samples required in accordance with the Bureau of Indian Standards (Certification) Regulations, 1988, as amended from time to time, from the factory or godown. BIS may draw samples from the open market, if available.

10. REPLACEMENT

10.1 Whenever a complaint is received soon after the goods with Standard Mark have been purchased and used, and if there is adequate evidence that the goods have not been misused, defective goods shall be replaced free of cost by the licensee in case the complaint is found to be genuine and the warranty period (where applicable) has not expired. The final authority to judge the conformity of the product to the Indian Standard shall be with BIS.

10.2 In the event of any damage caused by the goods bearing the Standard Mark, or any claim being filed by the consumers against BIS Standard Mark and not “conforming to” the relevant Indian Standard, entire liability arising out of such non-conforming product shall be of the licensee and BIS shall not in any way be responsible in such cases.

11. STOP MARKING

11.1 The marking of the product shall be stopped under intimation to BIS if, at any time, there is some difficulty in maintaining the conformity of their product to the Specification, or the testing equipment goes out of order or due to any other reason. The marking may be resumed as soon as the defects are removed under intimation to BIS.

11.2 The marking of the product shall be stopped immediately if directed to do so by BIS for any reason. The marking may then be resumed only after permission by BIS. The information regarding resumption of marking shall also be sent to BIS.

12. PRODUCTION DATA

12.1 The licensee shall send to BIS a statement of quantity produced, marked and exported by him and the value thereof at the end of each operative year of the licence as per the enclosed proforma which has to be authenticated by a Chartered Accountant.

Table-1....

IS 4824:2006
BEAD WIRE FOR TYRES
TABLE 1 LEVELS OF CONTROL
(Clause 7 of the Scheme of Testing and Inspection)

TEST DETAILS			LEVELS OF CONTROL			
Clause	Requirements	Test Method		No. of Specimen	Frequency	Remarks
		Clause	Reference			
6	Chemical Composition	IS 228 or any other established instrumental/ chemical method				
	a) Ladle Analysis	6.1 Table-1	IS 4824:2006 IS 228 (in parts)	One	Each Heat	Applicable for manufacturers with steel making facilities.
	b) Product Analysis	6.2 Table-2	IS 4824:2006 IS 228(in parts)	i) Nil ii) One	---- ii) Each cast	i) Applicable for manufacturers with steel making facilities. ii) Applicable for manufacturers with wire drawing facilities only. In case the steel rods/bars obtained for production of steel wires is ISI marked and received with test certificate, no further testing is required.
7	Tensile Test	7.1 7.1.1 Table-3	IS 4824:2006 IS 1608	One	Every 5 th Coil	In case the sample fails, the coil from which the sample has been drawn shall be rejected.
8	Torsion Test	8	IS 4824:2006 IS 1717	-do-	-do-	Sample from the remaining coils in the control unit shall be drawn and tested and only those coils which conform shall be marked with the Standard Mark.
9	Bend test	9	IS 4824:2006 IS 1716	-do-	-do-	
10	Bead Wire test	10	IS 4824:2006	-do-	-do-	
11	Weight of Coating	11 Table-5	IS 4824:2006	-do-	-do-	
12	Protective Coating	12	IS 4824:2006	If agreed to between the supplier and the purchaser,		
13	Freedom from Defects	13	IS 4824:2006	Adequate inspection to ensure that finished wire shall be circular in section and free from scales, splits, spills and other harmful defects.		
14	Tolerances on sizes	14	IS 4824:2006	One	Every Coil	
15	Finish	15.1	IS 4824:2006	One	Every Coil	As specified by the purchaser
	Adhesion test	15.2 Annex-A	IS 4824:2006	One	Every 5 th Coil	Values agreed to between manufacturer & purchaser shall be maintained.

BIS STANDARD MARK

ANNEXURE-I
(Para 4.2 of Scheme of Testing and Inspection)
XYZ IRON AND STEEL COMPANY
TEST CERTIFICATE FOR BEAD WIRE FOR TYRES

Test Cert. No.: _____

Date: _____

To M/s _____

We certify that the material described below fully conforms to IS 4824:2006 chemical composition and Mechanical properties of product as tested in accordance with the Scheme of Testing and Inspection contained in BIS certification marks license No. CM/L-_____ are as indicated below against each order No. etc.
(Please refer to IS 4824:2006 for details of specification requirements)

TEST RESULTS

Order No.	Size	Batch No.	Finish	Quantity (Tonnes)	Chemical Analysis						Weight of coating (g/per Kg of wire)	Mechanical Properties				Adhesion Test	Protective Coating (If applicable)
					C (%)	Si (%)	Mn (%)	S (%)	P (%)	N (%)		Al (%)	Torsion Test	Tensile Strength (N/mm ²)	Elongation (%)		

Remarks:

SIGNATURE DESIGNATION FOR
XYZ IRON & STEEL COMPANY

(It is suggested that size A-4 paper (210X297 mm) be used for this certificate)

PROFORMA FOR OBTAINING PRODUCTION DETAILS

Period covered	
Name of Licensee	
CM/L No.	
Name of Articles (s)	IS No.
Grade/Type/Size/Variety/Class/Rating	
Brand/Trade/Name(s) of Product covered under BIS Certification Mark	
Total production of the articles(s) licensed for certification marking	
Total production of the article(s) conforming to Indian Standard	
Production covered with BIS Certification Mark and its Value :	
a) Quantity	
b) Value (Rs.)	
Brand Name used on production covered under BIS Certification Mark	
Calculation of marking fee on unit-rate basis; Marking Fee per unit	
a) Unit	
b) Quantity covered with BIS Certification Mark	
c) Marking fee rounded off in whole rupees as obtained by applying unit rates given in (a) on quantity given in (b)	
NOTE: In case a clause is not applicable, suitable remarks may be given against it	
Quantity not covered with BIS Certification Mark, if any.	
Reasons for such non-coverage	
Brand Name under which non-ISI goods were sold	
Quantity exported with BIS Standard Mark and its value	
Brand Name under which BIS Certified goods are exported	
Authentication by Chartered Accountant	