

केन्द्रीय मुहर विभाग- III

हमारा संदर्भ- सीएमडी -III/16: IS 16651

24 जनवरी 2018

विषय- आई एस 16651 : 2017 के परिपालन लिए एस टी आई Doc: STI/16651/PP/1, January 2018

इसे उपरोक्त विषय का संदर्भ है।

सक्षम प्राधिकारी ने IS 16651 : 2017 के अनुसार उत्पाद के प्रमाणन हेतु पुनरीक्षित एस.टी.आई Doc: STI/16651/PP/1, January 2018 को अनुमोदित कर दिया है ।

सभी संबंधित पक्षकारों से अनुरोध है कि इसका अनुपालन तत्काल प्रभाव से सुनिश्चित करें ।

(एस डी राणे)

वैज्ञानिक ई (सी एम डी-III)

प्रमुख (सी एम डी-III)

सभी क्षेत्रीय/शाखा कार्यालय

आई टी एस विभाग – बीआईएस इंटरनेट पर डालने हेतू

CENTRAL MARKS DEPARTMENT-III

Our Ref: CMD-III/16: IS 16651

24 January 2018

Subject: Revised STI Doc: STI/16651/PP/1, January 2018 for implementation of IS 16651 : 2017

This has reference to the subject mentioned above.

The Competent Authority has approved the revised STI, Doc: STI/16651/PP/1, January 2018 for certification of the product as per IS 16651 : 2017.

All concerned are requested to ensure compliance of above STI with immediate effect.

**(S D Rane)
Sc-E (CMD- III)**

Head (CMD-III)

Circulated to all RO/BO

Copy to: ITS for hosting on BIS Intranet.

**SCHEME OF TESTING AND INSPECTION FOR CERTIFICATION OF
HIGH STRENGTH DEFORMED STAINLESS STEEL BARS AND
WIRES FOR CONCRETE REINFORCEMENT
ACCORDING TO IS 16651 : 2017**

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 applied on each bundle containing the bars/wires, provided always that the bundles of bars/wires to which the Standard Mark is applied conforms to every requirement of the specification.

5. MARKING

5.1 In addition to the Standard Mark, the information as per clause 12 of IS 16651 : 2017 shall be marked on tag attached with each bundle containing the wires/bars.

5.2 For each consignment of BIS certified material conforming to IS 16651 : 2017, a test certificate as per clause 11.4 of IS 16651 : 2017 and Annex 1 of STI shall be issued.

5.3 Unless otherwise agreed to between the purchaser and the supplier, the wires/bars shall be supplied as per Clause 11 of IS 16651 : 2017.

6. LEVELS OF CONTROL

6.1 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.

6.2 **Control Unit:** For the purpose of this Scheme, **bars/wires of same size and strength grade and processed from an identical heat or cast** shall constitute a control unit.

6.3 On the basis of the test results, decision regarding conformity or otherwise of the production shall be made as follows:

6.3.1 Samples shall be drawn from each control unit as per frequency specified in Table 1 and tested for requirements specified therein. If all samples tested found confirming to specification, bars/wires which conforms to the Indian Standard and covered by the licence shall be marked with Standard Mark.

6.3.2 **RETEST:** If the samples drawn fail in any requirement, two additional samples from same control unit shall be drawn for testing in respect of each failure. If both samples passes, the control unit represented by these test samples shall be marked with Standard Mark. Retesting for fatigue test shall be done as per Annex B of IS 16651:2017.

6.4 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.

6.5 Wherever the Raw Materials/Components used is under the Mandatory Certification of BIS, they shall necessarily be ISI marked and no further testing is required. Wherever the Raw Materials/Components used is not under the Mandatory Certification of BIS and is accompanied with Test Certificate or ISI marked, in such cases also no further testing is required.

7. REJECTIONS

7.1 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.

8. SAMPLES

8.1 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.

9. REPLACEMENT

9.1 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.

9.2 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.

10 STOP MARKING

10.1 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.

10.2 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.

11 PRODUCTION DATA

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 LEVELS OF CONTROL
(Clause 6 of the Scheme of Testing and Inspection)

TEST DETAILS				LEVELS OF CONTROL		
Clause	Requirements	TEST METHOD		No. of samples	Frequency	Remarks
		Clause	Reference			
4.3	Chemical composition					
	a) Ladle Analysis	4.3.1	IS 1665 IS 228	Two	Each heat/cast less than or equal to 100 MT	No testing is required if each consignment is received with a test certificate.
				Three	Each heat/cast above 100 MT	
	b) Product Analysis	4.3.2	IS 16651 IS 228	One	100 MT or less from each control unit	-
4.4	Surface Quality	4.4	IS 16651	All	Each Control unit	Adequate inspection to ensure each item to be free from defects.
5.2	Deformation and surface characteristics.	5.2 to 5.6, 8.4	IS 16651	Two	100 MT or less from each control unit	-
5.7	Pull-out Test	5.7, 8.4	IS 16651 IS 2770 (Part 1)	a) The frequency of bond test as required in 5.7 shall be as agreed to between the manufacturer and the purchaser. b) Pull out test in accordance with 5.7 shall be done in addition to 5.2 for approval of new or amended geometry for first time.		
6 & 7	Nominal Size, Effective cross sectional area and Mass of deformed bars and wires, Dimensions and tolerances	6 and 7	IS 16651	Adequate inspection to ensure that each item is within the limit of Standard.		
8.2	Tensile Properties	8.2 & 9.2	IS 16651 IS 1608	Two	100 MT or less from each control unit	-

TEST DETAILS				LEVELS OF CONTROL		
Clause	Requirements	TEST METHOD		No. of samples	Frequency	Remarks
		Clause	Reference			
8.3	Bend and Rebend Properties			Two	100 MT or less from each control unit	-
	a) Bend Test	8.3 and 9.3	IS 16651 IS 1599			
	b) Rebend test	8.4 and 9.4	IS 16551	Two	100 MT or less from each control unit	-
8.5	Fatigue Test	8.5	IS 16651 IS 1608	Every five years or after 1000 tonne are produced for each diameter, steel designation and strength grade manufactured, whichever occurs sooner.		
8.6	Charpy Impact Test	8.6	IS 16651 IS 1757	One	Each Control unit	-
8.7	Inter-Granular Corrosion Test	8.7	IS 16651 IS 10461 (Part 2)	One	Each Control unit	-

ANNEXURE I
(Para 5.2 of the Scheme of Testing and Inspection)

STANDARD
MARK

XYZ COMPANY
(Registered office Address and works address)

TEST CERTIFICATE FOR HIGH STRENGTH DEFORMED STAINLESS STEEL BARS AND WIRES FOR CONCRETE REINFORCEMENT
ACCORDING TO IS 16651 : 2017

TEST CERTIFICATE No. _____ DATE _____
TO M/s _____

It is certified that the material described below fully conforms to IS 16651: 2017. Chemical composition and Mechanical properties of the Product, as tested in accordance with the Scheme of Testing and Inspection contained in the BIS Certification Marks Licence CM/L _____ are as indicated below against each order No. .

(PLEASE REFER TO IS 16651 : 2017 FOR DETAILS OF SPECIFICATION REQUIREMENTS)

TEST RESULTS

Order No. & Date	Nominal Size, Strength grade and Steel Designation	Control Unit No.	Cast/Heat No.	Quantity (MT)	CHEMICAL ANALYSIS							MECHANICAL PROPERTIES							REMARKS				
					C	Si	Mn	S	Cr	Ni	P	Cu	N	0.2 % Proof stress N/mm ²	Percentage elongation after fracture %	Tensile strength N/mm ²	Percentage elongation maximum force %	Deformation and surface Characteristics		Bend Test	Rebend test	Charpy impact test	Inter-Granular Corrosion test
					%	%	%	%	%	%	%	%	%										

Surface Quality : Satisfactory/Unsatisfactory

REMARK

SHIPPING ADVICE No.
WAGON NOS.

SIGNATURE:

DESIGNATION:
FOR XYZ COMPANY

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	