

केंद्रीय मुहर विभाग-2

संदर्भ : कें.मु.वि- /16: 12591

23 Aug 2018

**विषय: पुनरीक्षित IS 12591:2018/ ISO 11950 : 2016, Cold-Reduced Tinmill Products – Electrolytic Chromium / Chromium Oxide — Coated Steel के अनुपालन हेतु दिशा निर्देश**

1 IS 12591:2006/ISO 11950:1995 को IS 12591:2018/ISO 11950 : 2016 में पुनरीक्षित किया गया है। पुनरीक्षित IS 12591:2018/ISO 11950 : 2016 के कार्यान्वयन की अंतिम तिथि 09 अक्टूबर 2018 है।

2 सक्षम प्राधिकारी द्वारा अनुमोदित, IS 12591:2018/ISO 11950 : 2016 के कार्यान्वयन के दिशा निर्देश, गृपिंग दिशा निर्देश एवं Scheme of Inspection and Testing (SIT) सनल्य है। सभी शाखा कार्यालयों से अनुरोध है की अपने कार्यक्षेत्र के अंतर्गत सभी लाइसेन्स धारकों/आवेदकों को IS 1993:2018/ISO 11949 : 2016 के कार्यान्वयन के बारे में सूचित करें एवं निश्चित तिथि अनुसार अनुपालन सुनिश्चित करें।

(आदित्य दास)  
वैज्ञानिक सी (कें.मु.वि.-2)

प्रमुख, (कें.मु.वि.-2)

सभी क्षेत्रीय/शाखा कार्यालयों/एम टी डी/एलपिपिडी को intranet माध्यम से परिचालित

प्रतिलिपि:

ITS - इंटरनेट पर अपलोड करने के लिए

**CENTRAL MARKS DEPARTMENT -2**

Our Ref: CMD-2/16: 12591

23-Aug-2018

**Subject: Guidelines for implementation of IS 12591:2018/ ISO 11950 : 2016, Cold-Reduced Tinmill Products – Electrolytic Chromium / Chromium Oxide — Coated Steel**

1. IS 12591:2006/ISO 11950:1995 has been revised as IS 12591:2018/ISO 11950 : 2016 and is published. The last date for implementation of IS 12591:2018/ISO 11950 : 2016 is 09 October 2018
2. Implementation guidelines, along with revised grouping guidelines and Scheme of Inspection and Testing (SIT) duly approved by the CA, are enclosed. All BOs are requested to inform the licensees/applicants in their jurisdiction about the about the revised Standard and ensure its implementation within the prescribed date.

**Aditya Das**  
Sc. C

HCMD-2

Circulated to ROs/BOs/MTD/LPPD through intranet

Copy to: ITSD- for hosting in intranet

## CENTRAL MARKS DEPARTMENT-2

Our Ref: CMD-2/16: IS 12591

17 August 2018

**Subject: Guidelines for implementation of IS 12591:2018/ /ISO 11950 : 2016, Cold-Reduced Tinmill Products – Electrolytic Chromium / Chromium Oxide — Coated Steel**

1. IS 12591:2006/ISO 11950:1995 has been revised as IS 12591:2018/ISO 11950 : 2016 and is published. The last date for implementation of IS 12591:2018/ISO 11950 : 2016 is 09 October 2018 after which IS 12591:2006/ISO 11950 :1995 shall stand withdrawn vide Gazette Notification S.O.3533(E) Dated: 20/07/2018.
2. All BOs shall inform the Applicants and Licensees under their jurisdiction about the revised Standard and shall ensure that the product conforms to all the requirements, as applicable, as per the revised Standard.
3. The significant changes in the revised Standard as listed in the Table below are given for the purpose of general guidance. BOs shall ensure that the product conforms to all the requirements, as applicable, as per the revised Standard.

Clause	Requirement
Title	Title of the product has been changed <i>Cold-Reduced – Electrolytic Chromium / Chromium Oxide — Coated Steel</i> to <b><i>Cold-Reduced Tinmill Products – Electrolytic Chromium / Chromium Oxide — Coated Steel</i></b>
Foreword	Reference to IS 8910, IS 15263 have been added and IS 1586(Pt.1) has been updated.
1	Thickness for Single cold-reduced ECCS has been increased to 0.600mm and for Double cold-reduced ECCS has been increased to 0.360mm.
6.1 Table-B.1 Table-A.1 Table-A.2	Classification based on hardness has been applied for Double cold-reduced ECCS and classification based on tensile properties has been applied for Single cold-reduced ECCS. New Designations T49, T53, T59 are added and designations T50, T52 are deleted for Single cold-reduced ECCS. 05 New Designations T71, T72, T73,T75, T76 are added for Double cold-reduced ECCS.
7.1	Steel type of ECCS shall be designed to secure food safety when ECCS is used for food application.
7.2	Annealing shall be BA or CA.
7.3	Types of finish have been added
8	Minimum and maximum average values of coating mass have been modified.
10.7	Requirements on flatness has been added

4. Consequent upon the issuance of the revised Standard, existing STI,Doc:STI/12591/1 April 2015, has been revised as Scheme of Inspection and Testing (SIT) according to IS 12591:2018, Doc:SIT/12591/1 August 2018.
5. The guidelines for implementation of the revised Standard are given below:

**A. For Licensees:**

- (i) All Licensees operating as per IS 12591:2006 shall switchover to the revised Standard by 09 October 2018. BOs shall ensure that no Licences are under operation as per the old Standard after 09 October 2018.

- (ii) Licensees shall confirm conformance to the additional/modified requirements through submission of form- I & II to scheme-I under schedule-II of BIS (CA) Regulations 2018, In-house/ Independent Test Reports or Test Certificates, as applicable. Verification of additional requirements and facilities, if any, may be done during the next visit.
- (iii) Evidence of conformity as indicated below for the designations covered in the scope of existing licence:

Group	Grades in the existing licence as per IS 12591 : 2006	Grades in the revised IS 12591:2018	Evidence of conformity for each Designation as per IS 12591:2018
1	T55,T57,T61,T65	T55,T57,T61, T65	Factory test report or test report from BIS recognized Lab or combination of factory/ independent test report for any of the designation.
3	T550,T580,T620, T650	TS/TH 550, TS/TH580, TS/TH620, TH 650	Factory test report or test report from BIS recognized Lab or combination of factory/ independent test report for any of the designation.

- (iv) BO may issue endorsement for the revised scope, SIT after receipt of SIT Acceptance and the confirmation from the Licensee on implementation of the revised Standard. If the Licensee fails to complete all actions by 09 October 2018 it shall be dealt with relevant guidelines issued for Conformity assessment scheme for Grant of licence to use or apply Standard Mark on goods and articles as per Indian Standard (based on scheme Type E as per Schedule-I of BIS (CA) Regulations 2018).
- (v) The old standard consists of Single cold-reduced ECCS defined on hardness and Double cold-reduced ECCS defined on proof strength. Accordingly, for switchover to the revised standard, the licensee shall be required to submit factory/independent test reports as mentioned above for one designation of Single cold-reduced and/or for one designation of Double cold-reduced covered under existing licence.

### **B. For Applicants:**

Existing Applications where Sample has been submitted in the Laboratory/Test Report has been issued by the Laboratory as on date of issue of these guidelines may be processed as per the old Standards. However, if the Applicant is desirous of considering the Application as per the revised Standard, a declaration from the Applicant may be obtained to that effect and the Application may be processed accordingly. An undertaking from such Applicants shall also be obtained that if the sample fails in new test requirements, Licence will not be granted by BIS as per the old version.

- (i) Applications which are recorded henceforth may be processed as per the old Standards or the revised Standard. Processing of Applications as per old Standards shall be permitted only upto 09 October 2018 and for such cases Applicant shall give a declaration that they will switchover to the revised Standard by 09 October 2018.
- (ii) For any Application which is processed as per the old Standards, Applicant shall give a declaration that they will switch over to the revised Standard by 09 October 2018.
- (iii) Beyond 09 October 2018 no Licence shall be granted as per the old Standard.

### **C. For Inclusions:**

- (i) For Inclusion of New Varieties, the relevant provisions as given above for Applicants shall apply.

(ii) However, processing of Inclusions as per the old Standard shall be permitted only upto the date of switchover to the revised Standard or upto 09 October 2018 whichever is earlier.

6. The above guidelines come into force with immediate effect.

(Arun Pucchakayala)  
Scientist-C

**Head (CMD-2)**

**DDG (Certification)**

## CENTRAL MARKS DEPARTMENT-2

Our Ref.: CMD-2/16: 12591

17 08 2018

**Subject: Grouping Guidelines for Cold-Reduced Tinmill Products – Electrolytic Chromium / Chromium Oxide – Coated Steel as per IS 12591:2018 for drawl of sample for considering Grant of Licence/Inclusion**

In order to align with existing guidelines for steel items and uniform practice is followed across ROs/BOs, the following procedure to be adopted towards grant of licence and inclusion of additional varieties.

Grouping has been done on the basis of mechanical properties and degree of cold working for designations defined on hardness values and on the basis of proof strength for designations defined on tensile properties as under:

Group	Product	Designations covered in the group
1	Designations of Single cold-reduced ECCS classified on basis of hardness values(HR30Tm)	T49, T53, T55, T57, T59, T61 , T65.
2	Designations of Double cold-reduced ECCS classified on basis of hardness values(HR30Tm)	T71, T72, T73, T75, T76.
3	Designations of Single/Double cold-reduced ECCS classified on tensile property and requiring Batch Annealing(BA) or Continuous Annealing(CA)	TS200,TS230,TS245,TS260,TS275,TS290,TS340,TS480,TS520,TS550, TS 580, TS620 TH230,TH245,TH260,TH275,TH300,TH330,TH350,TH385 ,TH400,TH415,TH435,TH450,TH480,TH520, TH550,TH580,TH620, TH650.

- 1) In case of GOL/inclusion for group-1 or group-2, one sample of any thickness but of higher hardness shall be drawn and tested to cover all the designations of the product within the group.
- 2) In case of GOL/inclusion for group-3, one sample each of higher proof strength and of lower proof strength shall be drawn and tested to cover all the designations of the product within the group. The samples drawn shall be of any thickness and of BA or CA.
- 3) For testing of imperfections and tolerances on Dimensions and shapes such as feather edge, width, length, edge camber, out of squareness (for sheets), Joints within a coil one sample of any size, of each group intends to be covered in the licence may be tested in the factory. Separate samples are not required to be tested for physical parameters for each size/designation.

However, while considering inclusion of a new variety (designation), licensee shall submit factory test report for physical parameters if the physical parameters are different from the ones already tested.

- 4) While drawing samples for independent testing, applicable declaration as per cl. 7.1(Annex-C), 7.2 and 7.3 of IS 12591:2018 may be obtained and reflected in the test request appropriately.

5) If the samples drawn passes, licence may be granted/inclusion be done for the Designations of the Group. However, it shall be ensured that the firm is having all necessary manufacturing capabilities and testing facilities for the Designations against the range of thickness, range of width, finish and type of annealing intended to be included in the licence.

6) An illustration on the scope of licence for IS 12591:2018 is mentioned below:

Designations	Thickness Range	Width range	Finish

7) During the operation of license, BO shall ensure that all Grades & Designations covered in the license are drawn for independent testing on rotation over a period of time.

(Arun Pucchakayala)  
Scientist-C, CMD-2

**Head(CMD-2)**

**DDG(certification)**

**To All ROs/BOs**

**SCHEME OF INSPECTION AND TESTING  
FOR CERTIFICATION OF  
COLD-REDUCED TINMILL PRODUCTS --  
ELECTROLYTIC CHROMIUM / CHROMIUM OXIDE — COATED STEEL  
According to IS 12591:2018**

**1. LABORATORY** - A laboratory shall be maintained which shall be suitably equipped (as per the requirement given in column 2 of Table 1) and staffed, where different tests given in the specification shall be carried out in accordance with the methods given in the specification.

**1.1** The manufacturer shall prepare a calibration plan for the test equipments.

**2. TEST RECORDS** – The manufacturer shall maintain test records for the tests carried out to establish conformity.

**3. LABELLING & MARKING** –

The Standard Mark as given in the Schedule of the license and Licence Number (i.e. CM/L.....) shall be incorporated, and the marking shall be done as per the provisions of the Indian Standard, provided always that the product thus marked conforms to all the requirement of the specification.

**4. CONTROL UNIT** – For the purpose of this scheme, a control unit shall be taken as a single coil of one cast plated together under uniform conditions of production and upto a maximum of 18000 kg (18 tonnes).

**5. LEVELS OF CONTROL** - The tests as indicated in column 1 of Table 1 and the levels of control in column 3 of Table 1, shall be carried out on the whole production of the factory which is covered by this plan and appropriate records maintained in accordance with paragraph 2 above.

**5.1** All the production which conforms to the Indian Standards and covered by the licence should be marked with Standard Mark.

**6. TEST CERTIFICATE**-For each consignment of BIS Certified material conforming to IS 12591:2018 there shall be a test certificate which shall contain the Standard Mark, the cast/Control Unit number and the corresponding test results (as given in Annexure-I enclosed)

**7. REJECTIONS** – 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. A separate record shall be maintained giving information on quantity and cast number/coil number/control unit number, as applicable, relating to all such rejections/defective/sub-standard material of the production not conforming to the requirements of the Specification and the method of its 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 should be defaced.

**SCHEME OF INSPECTION AND TESTING  
FOR CERTIFICATION OF  
COLD-REDUCED TINMILL PRODUCTS --  
ELECTROLYTIC CHROMIUM / CHROMIUM OXIDE — COATED STEEL**

According to IS 12591:2018

**TABLE 1: LEVELS OF CONTROL**

(1)		(2)	(3)		(4)		
TEST DETAILS				LEVELS OF CONTROL		REMARKS	
Clause	Requirements	Test Method		Test equipment requirements R: required (or) S: Sub-contracting permitted	No. of Samples		Frequency
		Clause	Reference				
7	Chemical Composition	Choice of a suitable physical or chemical analytical method for the analysis shall be at the discretion of the manufacturer. In cases of dispute, the method for analysis used shall be agreed taking into account the relevant existing Indian Standards					
	Cast Analysis	7.1, Annex-C	IS 12591: 2018	R	One	Each Heat	Applicable for manufacturers having steel making facilities. The chemical composition as declared by the manufacturer.
	Product Analysis	-do-	-do-	R	One	Each Cast	Applicable for manufacturers without steel making facilities. However, no testing is required if non-alloy quality steel used is ISI marked.
7.3	Finish	7.3	IS 12591: 2018 IS 15263	S	One	Each coil/ package of sheets	As mutually agreed to between manufacturer and purchaser.
7.4	Oiling	7.4	IS 12591: 2018	S	Requirements, Test method and frequency, etc as agreed to between manufacturer and purchaser		



7.5	Imperfections	7.5.1 7.5.2 3.5	IS 12591: 2018	R	Adequate inspection in the line of production and in the stacks to ensure freedom from defects. For verification of grades by random selection of samples as per Cl. 12 of the specification & examination of the surface as per Cl. 3.5 of Specification to be resorted to.		
8	Chromium/ chromium in oxide coating mass	8,12, 13.1, Table-2	IS 12591: 2018	R	One	Each Control Unit	
9	Mechanical Properties						
	Hardness Requirement	9.2, 13.2 and Table A.1, A.2	IS 12591: 2018 IS 1586(Pt.1)	R	One	Each Control Unit	
	Tensile property requirement	9.3,Ann ex-D , 13.3& Table- B.1	IS 12591: 2018 IS 1608 (Pt.1)	R	One	Each Control Unit	
10	Tolerances on Dimensions and shape	10.1, 10.2, 10.3, 10.4, 10.5, 10.6, 10.7, 14.4	IS 12591: 2018	R	Adequate measurement to ensure each coil/ package of sheets will conform to the various requirements and specified tolerances but in no case frequency will be less than two samples from the production of each coil/package of sheets.		
11	Joint within a coil	11.1 to 11.4	IS 12591: 2018	R	Adequate measurement to ensure that coils conform to the various requirements and specified tolerances.		

Note-1: Whether test equipment is required or sub-contracting is permitted in column 2 shall be decided by the Bureau and shall be mandatory. Sub-contracting is permitted to a laboratory recognized by the Bureau or Government laboratories empaneled by the Bureau.

Note-2: Levels of control given in column 3 are only recommendatory in nature. The manufacturer may define the control unit/batch/lot and submit his own levels of control in column 3 with proper justification for approval by BO Head.

**ANNEXURE I**

(Para 6 of the Scheme of Inspection and Testing)  
**XYZ IRON AND STEEL COMPANY**  
 (Registered office Address and works address)

BIS STANDARD MARK
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**TEST CERTIFICATE FOR COLD-REDUCED TINMILL PRODUCTS--ELECTROLYTIC CHROMIUM/CHROMIUM OXIDE-COATED STEEL****According to IS 12591:2018**

TEST CERTIFICATE No. \_\_\_\_\_

DATE \_\_\_\_\_

To M/s \_\_\_\_\_

We certified that the material described below fully conforms to 12591:2018, for Physical properties of the product and with Chemical composition as declared below, as tested in accordance with the Scheme of Inspection and Testing contained in the BIS Certification Marks Licence No. CM/L \_\_\_\_\_ are as indicated below against each order No.

(PLEASE REFER TO IS 12591:2018 FOR DETAILS OF SPECIFICATION REQUIREMENTS)

**TEST RESULTS**

Order No. & Date	(nom Size)	Control Unit No.	designation	Quantity in tonnes	CHEMICAL COMPOSITION					Dimensional Tolerances					Mechanical properties		Mm. /max avg of coating	Surface finish
					C %	S %	P %	Si %	Mn %	thickness	width	length	Edge camber	flatness	Out of squareness	Proof stress		

REMARKS

WAGON NO.

TRUCK NO.

(It is suggested that size A4 paper be used for this test certificate)

FOR XYZ IRON AND STEEL COMPANY