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उत्पाद मैनुअल
स्टेनलेस इस्पात की प्लेट, चढ़ें तथा पत्तियाँ –विशिष्टि
IS 6911: 2026 के अनुसार

Product Manual for
Stainless Steel Plate, Sheet and Strip
According to IS 6911: 2026

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.	भारतीय मानक संख्या IS No.	:	IS 6911:2026
	शीर्षक Title	:	Stainless Steel Plate, Sheet and Strip
	संशोधनों की संख्या No. of amendments	:	0
2.	नमूना दिशानिर्देश Sampling Guidelines		
a)	कच्चा माल Raw material	:	The raw material used for manufacturing hot rolled strip/sheet/plate shall conform to the requirements specified in IS 14650. Wherein cold rolled strip/sheet/plate is manufactured, the raw material is hot rolled strip/sheet/plate and the same should conform to the requirements specified in this standard. Note: This section indicates the requirements for raw material (if specified in the IS) for which compliance is to be established during Grant of Licence/Change in Scope of Licence/Factory Surveillance

b)	समूहीकरण दिशानिर्देश Grouping Guidelines	:	Please refer to Annex- A
c)	नमूने का परिमाण Sample Quantity	:	5 pieces of 5 cm x 5 cm for chemical tests 0.5 m x 0.5 m for mechanical tests (Prepared tests for pieces for thickness > 4 mm, Tensile Test not applicable for Thickness less than 0.3 mm) Dimensions and Tolerances (cl.17.) shall be tested in the factory (during Factory Testing) on the full width/length of coil/strip/plate etc. from which samples are drawn for Independent Testing. Note: This section indicates the quantity of the sample of the product and/or the raw material (if applicable), required to be sent to the laboratory for testing, for the purpose of Grant of Licence/Change in Scope of Licence/ Factory Surveillance (in case of market surveillance, effort may be made to procure the required quantity of product sample, as far as possible since raw material sample may not be available in market)
d)	परीक्षण अनुरोध में घोषित किए जाने वाले पैरामीटर Parameters to be Declared in Test Request	:	Grade Designation, Condition, Heat Treatment, Surface Finish, Coating type on surface of base metal (if applicable), Size Note: Apart from the above, any other requirements/parameters may also be declared as per the standard, as applicable.
3.	परीक्षण उपकरणों की सूची List of Test Equipment	:	Please refer to Annex- B
4.	निरीक्षण और परीक्षण की स्कीम Scheme of Inspection and Testing	:	Please refer to Annex- C
5.	एक दिन में संभावित परीक्षण Possible tests in a day All tests. Note: This section is for the guidance of BIS Certification Officers/Technical Auditors of BIS Authorized Outside Surveillance Agencies (OSAs) during factory inspection to provide ready reference regarding the tests which can be witnessed during the inspection in the factory by the officer/auditor.		
6.	लाइसेंस का दायरा /Scope of the Licence:		
	IS 6911: 2026 के अनुसार मानक मुहर का उपयोग करने के लिए लाइसेंस निम्नलिखित कार्यक्षेत्र के लिए प्रदान किया जाता है □Licence is granted to use Standard Mark as per IS 6911: 2026 with the following scope:		
7.	उत्पाद का नाम Name of the product		Stainless Steel Plate, Sheet and Strip

	Grade Designation	301, 302, 304S1,.....
	Condition	Hot rolled/cold rolled
	Heat Treatment	Annealed with air or water quenching
	Size	Strips of Nominal width from... to ... mm,Thickness from ... to ... mm, Sheets of Nominal width from... to ... mm,Thickness from ... to ... mm , Length fromto Mm Plates of Thickness (mm) x Width (mm) x Length (mm) Chequered Plates of Thickness (mm) x Width (mm) x Length (mm)
	Surface finish	Mill Finish – 2D, 2B etc. Polish Finish – 3, 4 etc.
	Coating Type (Optional)	Cladded, laminated, coated, plated, varnished, enameled, lacquering, etched, embossed, decorative, painted..... (As agreed upon between the purchaser and the manufacturer)

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ANNEX-A

GROUPING GUIDELINES

A) Grouping based upon Grade Designations:

Manufacturer shall declare the Grade Designations intended to be covered in the Scope of the Licence.

Group	Grade Designation Series	Remarks
1	400-Ferritic	One sample of any Grade Designation shall be drawn and tested
2	400- Martensitic	One sample of any Grade Designation shall be drawn and tested
3	600- Precipitation hardening steels	One sample of any Grade Designation shall be drawn and tested
4	200- Austenitic	One sample of any Grade Designation shall be drawn and tested
5	300- Austenitic	One sample of any Grade Designation shall be drawn and tested
6	900-Austenitic	One sample of any Grade Designation shall be drawn and tested
7	32615 & 38815-Austenitic	One sample of any Grade Designation shall be drawn and tested
8	8020, 8700, 800, 800H, 8811-Austenitic	One sample of any Grade Designation shall be drawn and tested
9	Low Nickel-Austenitic (i.e. N1, N2, N3)	One sample of any Grade Designation shall be drawn and tested
10	Low Nickel Austenitic (i.e. N5, N6, N7)	One sample of any Grade Designation shall be drawn and tested
11	Duplex	One sample of any Grade Designation shall be drawn and tested
Note: 200-Austenitic grade designation series refers to all austenitic type grades bearing numerical symbol of the type 2xxx.. such as 201, 201A, 204Cu1 etc., Similarly for 400-Ferritic, 400-martensitic, 600- Precipitation hardening, 300-austenitic, 900-austenitic etc		

B) Grouping based upon Rolling Condition:

Rolling Condition	Grouping
Hot Rolled	Separate Samples, in addition to A above, shall also be drawn and tested for each Rolling Condition
Cold Rolled	

C) Grouping based upon Heat Treatment /Deliver Condition:

Heat Treatment /Deliver Condition	Grouping
Solution Annealed and Descaled	Samples, drawn at A&B above, shall be drawn in such combination so that samples of each Heat

Work Hardened	Treatment/Delivery condition, intended to be covered in the scope of the licence are tested.
Any other Heat Treatment/Delivery Condition	

D) Grouping based upon Surface Finish:

Surface Finish	Grouping
Hot Rolled (0, No.1)	Samples, drawn at A,B & C above, may be of any Surface Finish. Separate Samples for each Surface Finish are not required to be drawn.
Cold Rolled (CR, 2D,2B, BA)	
Polished Finishes (No.3, No.4, No.6, No.7, No.8)	However, recommendation of Scope of Licence for Surface Finishes shall be restricted based upon manufacturing capability
Any other Surface Finish (such as modified texture/special finishes/ chequered plates etc.)	

E) Grouping based upon coating type

Coating Type	Grouping
Stainless steel plate, sheet and strip may also be supplied either in clad, laminated, coated, plated, varnished, enameled, lacquering, etched, embossed, decorative, painted, and printed or in other type of coating or cladding as agreed upon between the purchaser and the manufacturer.	Samples, drawn at A, B, C & D above, may be of any Coating Type. Separate Samples for each Coating Type are not required to be drawn. However, recommendation of Scope of Licence for Coating Type shall be restricted based upon manufacturing capability

F) Grouping based upon Form of Stainless Steel and Size:

Form of Stainless Steel and Size	Grouping
Plate	Samples, drawn at A, B & C above, may be of any Form and Size. Separate Samples shall not be drawn and tested for each Form and Size. However, if manufacturer intends to cover different Forms in Scope of Licence, each Form shall be tested separately in the Factory during PI for the requirements of Dimensions and Tolerances only. Recommendation of Scope of Licence for Size shall be restricted based upon manufacturing capability
Strip (Coil)	
Sheet	
Chequered Plate	

G) Scope of licence shall be restricted based on the manufacturing and testing facilities available.

H) During operation of licence, samples of each variety covered in the scope of licence, shall be tested in rotation, to the extent possible.

ANNEX – B

LIST OF TEST EQUIPMENTS
(INDICATIVE LIST, FOR GUIDANCE ONLY)

Major test equipment required to test as per requirements of Indian Standard.

Sl. No.	Test Equipment/Chemicals and Identification Numbers (Where applicable)	Tests Used in with Clause Reference
1	Device for instrumental chemical analysis such as Optical Spectrometer with all requisite channels OR Carbon Sulphur (Strohlein's type) Apparatus – Complete set consisting of glass parts, combustion furnace, oxygen cylinder, combustion tubes/ boats etc. Porcelain boat (capable of withstanding 1150 deg. C), Weighing Balance, Hot plate, Muffle furnace' Induction Furnace, Barometer, Thermometer, Burette, Pipette and Full Range of Lab. Glassware like: Conical Flasks, Beakers, Funnel, Pipettes Glass rod, watch Glass, Brush etc. Standard Reference Material, Platinum Crucible for Silicon Test, Dessicator, Filter paper, Whatman Filter Paper & Ash less clippings, Arrangements for nitrogen testing, Drilling machine Chemicals and reagents as applicable (Indicative element wise list of test apparatus, chemicals and reagents is enclosed)	Chemical Compositions as per Cl. 7
2	Tensile Testing Machine	Tensile Test as per Cl.10.1
3	Hardness Tester (Vickers/Brinell/Rockwell)	Hardness as per Cl. 10.2
4	Erichsen cupping Test apparatus	Erichsen Cupping Test as per Cl. 11
5	Vernier Calipers, Micrometer, Steel Scale, Surface Table, Measuring Tape, Feller Gauge	Dimension as per Cl.17
6	Bend Test Equipment/ Mandrels/Templates/UTM attachments/ clamps/vice/Magnifying Glass.	Bend Test as per Cl.10.3
7	Apparatus for corrosion resistance test <u>BY HUEY TEST (IS 10461 (Part1):1994)</u> Oven (0-700Deg C), Stop Watch, Corrosive Solution (Aqueous solution of 65+/-2% (m/m) reagent grade HNO₃, weigh balance, Hot Plate, Conical Flask (1 litre) fitted with cold finger immersion condenser or other type of condenser such as Allihn	Corrosion Resistance as per Cl.12

	condenser with at least 4 bulbs, paper indicator to check acid fumes, test piece support Mechanical/chemical preparation and degreasing apparatus and reagents including Grade 120 Abrasive Paper or cloth, Hydrochloric Acid, Nitric Acid, soap, acetone, Water Apparatus for test specimen preparation <u>By Money Penny Strauss Test (IS 10461 (Part2):1994)</u> Single use corrosive solution prepared by dissolving 100 g of copper sulphate pentahydrate in 700 ml of distilled water. Then add 184 g (100ml) of sulphuric acid and made up to 1000 ml with distilled water. Conical flask of one litre fitted with four ball rising condenser weigh balance, Hot Plate, test piece support, copper filings Mechanical/chemical preparation and degreasing apparatus and reagents including Grade 120 Abrasive Paper or cloth, Hydrochloric Acid, Nitric Acid, Trichloroethylene or any other suitable solvent Apparatus for bend test, flattening test	
8	Strohlein or Leco apparatus with all attachments Barometer with chart, Hot plate, Muffle furnace, Complete range of glass wares, measuring cylinders, Desiccator, porcelain boats or ceramic crucibles, Thermometer, Electronic Balance, Distilled Water, Hot air oven, Oxygen - 99.5 percent minimum purity, ether or acetone Standard Reference Material (NML) with certificate Reagents for C: tin granules or pure iron fillings, acidulated water/brine water, methyl red, caustic potash Reagents for S: Ceramic boats/crucibles – desiccators, Fluxes - Low sulphur copper, tin or iron, Dilute hydrochloric acid, Starch Iodide solution, Potassium iodate	(Chemical method, alternative to instrumental method) Cl. 7.1, 7.2 – C & S
9	Weighing balance, Heater/ Heating element along with energy regulator, Ice water bath, Vol Flask Cap – 1 litre, (Whatman) filter paper No. 040, Suction Filtration Facility, Filter paper pulp pad, Standard Reference Material (NML) with certificate, Potassium Permanganate (KMnO₄), Sodium Nitrite (Na₂NO₃), Ammonium Molybdate [(NH₄)₂ Mo₂O₇], Ammonium Phosphate [(NH₄)₃ PO₄], Potassium Nitrate (K₂NO₃), Phenolphthalein Solution, Rectified spirit or methyl alcohol, Sodium Hydroxide (NaOH), Hydrofluoric Acid (HF), Perchloric Acid (HClO₄), Sulphurous Acid, Hydrobromic Acid (HBr), other chemicals and reagent as applicable	Phosphorus content Cl. 7.1, 7.2 (Chemical method, alternative to instrumental method)
10	Hot plate, Conical flask Reagents: silver nitrate, ammonium persulphate sodium arsenite solution, Dilute Nitric Acid, Phosphoric Acid, Dilute Sulphuric Acid, Concentrated Nitric Acid, NaCl Solution, Permanganic acid	Manganese content Cl. 7.1, 7.2 (chemical method, alternative to instrumental method)
11	Medium textured filter paper, Porcelain casserole, platinum crucible, filter paper pulp, hot plate, hot air oven, muffle furnace	Silicon content Cl. 7.1, 7.2 (Chemical method, alternative to instrumental method)

	Reagents: Silver nitrate solution, concentrated nitric acid, concentrated sulphuric acid, Dilute Hydrochloric Acid, Dilute Sulphuric Acid, Perchloric Acid, Tartaric acid and hydrofluoric acid	
12	Plate, Muffle Furnace, porcelain or silica crucible Reagents: Hot Wash Solution (dilute sulphuric acid solution 1 : 99 v/v with hydrogen sulphide), dilute sulphuric acid, hydrogen sulphide, Dilute Nitric Acid, Sodium Fluoride, solid, Dilute Ammonium Hydroxide, Acetic Acid, Potassium Iodide, Starch Solution, Sodium, Thiosulphate Solution, Ammonium Bifluoride Solution	Cu content Cl. 7.1, 7.2 (Chemical method, alternative to instrumental method)
13	ashless paper pulp, paper pulp pad, hot plate, dessicator, Reagents: ammonium nitrate, methyl red, dilute ammonium hydroxide, Concentrated hydrochloric acid, Concentrated nitric acid, Perchloric acid, Hydrofluoric Acid	Ni content Cl. 7.1, 7.2 (Chemical method, alternative to instrumental method)
14	Hot plate, stop watch Reagents: dilute sulphuric acid and phosphoric acid mixture, concentrated nitric acid, ammonium persulphate, silver nitrate, dilute hydrochloric acid, ferrous ammonium sulphate, standard potassium permanganate solution.	Cr content Cl. 7.1, 7.2 (Chemical method, alternative to instrumental method)

Note: The above is an indicative list for the purpose of guidance only

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 manufacturers, the recommended definition of control unit is: For the purpose of this scheme, Stainless Steel of the same form and size, same grade designation, treated to the same Heat Treatment process/delivery condition, having the same surface finish, same coating type and manufactured from the same cast/heat on the same line in one go shall constitute a control unit.

1.3.2 For the guidance of manufacturers in preparing the Quality Assurance Plan, recommended levels of control are given in Table 1. Manufacturer has the discretion of declaring their own levels of control or accept the levels of control given in this document.

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.

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

2.1 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 AND MARKING - The Standard Mark as given in the Schedule of the license and Licence Number (i.e. CM/L...) shall be suitably incorporated on each package of Coil/Sheet/Plate etc. and on the test certificate issued along with each consignment, provided always that the product thus marked and packed conforms to all the requirement of the specification.

3.1 Packing and Marking shall be done as per the Indian Standard.

3.2 Additional Marking requirements: Additionally, the following shall also be marked on each Package of the material:

- a) “For BIS certification details please visit www.bis.gov.in”
- b) Any other requirement not specified in the Indian Standard

4. TEST CERTIFICATE – For each consignment of BIS Certified material conforming to IS 6911:2026 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).

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
(Recommended Levels of Control by BIS- For Guidance Only)

(1)				(3)		(4)
TEST DETAILS				LEVELS OF CONTROL		REMARKS
Clause	Requirements	Test Method		No. of Samples	Frequency	
		Clause	Reference			
5	Manufacture	5.3	IS 6911	The raw material used for manufacturing hot rolled strip/sheet/plate shall conform to the requirements specified in IS 14650.		
6	Freedom from Defects	6.1 & 6.2	IS 6911	Manufacturer shall exercise adequate in-process controls to ensure that the material remains free from harmful defects.		
7	Chemical Composition	IS 228 and its relevant parts or any other established instrumental/chemical method				
	Ladle Analysis	7.1, 9.1.1 & Table1	IS 6911 IS 228 and its relevant parts	One	Each Heat	Applicable for primary stainless steel producers only
	Product analysis	7.2, 9.1.2 & Table1	IS 6911 IS 228 and its relevant parts	-	-	As agreed between the purchaser and supplier. Applicable for primary stainless steel producers only.
				One	Each Cast	Applicable for manufacturers not having steel making facilities. No further testing is required if the raw material/input material procured is ISI marked and is received with Test Certificate.
10	Mechanical Properties					
	Tensile test: a) 0.2 Percent proof Stress b) Tensile Strength c) Percentage Elongation	10.1, 10.4, 15.4, 15.5 Table 4	IS 6911 IS 1608 (Part-1)	*One	Each Control unit	*refer Cl 9.2 of IS 6911 As per Cl 15.4, In case of modified texture/special finishes/chequered plates, as mutually agreed between supplier and purchaser, the mechanical

						properties shall be checked on the base metal, as applicable. As per Cl 15.5 Stainless steel plate, sheet and strip may also be supplied either in cladded, laminated, coated, plated, varnished, enameled, lacquering, etched, embossed, decorative, painted, and printed or in other type of coating or cladding as agreed upon between the purchaser and the manufacturer. In such cases, the stainless steel used shall comply with the requirements of this standard.
	d) Hardness	10.2	IS 1500 (Part 1) IS 1501 (Part 1) IS 1586 (Part 1)	*One	Each Control unit	-do-
	e) Bend Test (if required)	10.3	IS 1599	One	Each Control unit	—
11	Erichsen Cupping Test	9.2 11.1, 11.2, 11.3 Table 5	IS 10175	Subject to agreement between the purchaser and the supplier		
12	Corrosion Resistance	12	IS 6911 IS 10461 (part 1) IS 10461 (part 2)	The material shall be tested for corrosion resistance if required by the purchaser.		
15	Surface Finish	15.1, 15.2, 15.3, 15.4, 15.5 & Table 6	IS 6911	Manufacturer shall ensure that the material is supplied in one of the standard finishes on both surfaces for mill finishes and one or both surfaces for polished / ground finishes. Stainless steel plate, sheet and strip may also be supplied either in cladded, laminated, coated, plated, varnished, enameled, lacquering, etched, embossed, decorative, painted, and printed or in other type of coating or cladding as agreed upon between the purchaser and the manufacturer		
17	Dimensions and Tolerance	17.1, 17.2, 17.3 & 17.4 Table 7 to 17	IS 6911	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.		

Annexure-I
(Para 4 of the Scheme of Inspection and Testing)
XYZ IRON AND STEEL COMPANY
(Registered office Address and works address)

ISI Mark
With IS No.
and CM/L
no.

Test Certificate for Stainless Steel Plate, Sheet and Strip
According to IS 6911: 2026
TEST CERTIFICATE NO. _____

To M/s _____

Dated _____

We certified that the material described below fully conforms to **IS 6911: 2026** Chemical composition and Physical properties of the product 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 6911: 2026** FOR DETAILS OF SPECIFICATION REQUIREMENTS)

TEST RESULTS

Order No. & Date	Type and Size	Control Unit No.	Grade condition, heat treatment, surface finish	Qty.	Chemical Composition (in %)											Mechanical Properties				Remark
					C	Si	Mn	Ni	Cr	Mo	S	P	N	Cu	Ors	Hardness	YS	TS	Elongation (%)	

Remarks
Wagon No.
Truck No.

FOR XYZ IRON AND STEEL COMPANY

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