

ICS 77.140.50

CCS H46



**NATIONAL STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

GB/T 4237-2015

Hot rolled stainless steel plate, sheet and strip

不锈钢热轧钢板和钢带

Issued on: September 11, 2015

Implemented on: June 1, 2016

**Issued by: General Administration of Quality Supervision, Inspection and
Quarantine;
Standardization Administration of the PRC**

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1 Scope

China's national standard for hot rolled stainless steel plate, sheet and strip. It specifies the classification and codes, the order content, the dimensions, shape, weight and tolerances, the technical requirements, the test methods, the inspection rules and the packaging, marking and quality certificate. It is the companion to the cold rolled standard and covers the heavier end of flat stainless product - the plate from which tanks, pressure vessels, structural sections and heavy fabrications are made, and the hot rolled coil that is the feedstock for cold rolling. The distinction from cold rolled product is not only thickness. Hot

rolled material has a scaled surface that must be pickled, a coarser grain, wider tolerances and no bright finish, and it is bought for what it does rather than for how it looks. Its grade list, its composition limits and its mechanical requirements are shared with the cold rolled standard, which is what allows a designer to specify a grade once.

This Standard specifies the classification, code, order content, dimension, shape, weight and allowable deviation, technical requirements, test methods, inspection rules, packaging, marking and product quality certificates of hot rolled stainless steel plates, sheets and strips. This Standard applies to corrosion-resistant hot-rolled thick stainless steel plates (hereinafter referred to as thick steel plates), corrosion-resistant hot-rolled wide stainless steel strips (hereinafter referred to as wide steel strips) and their roll-cutting specified-length steel plates (hereinafter referred to as roll-cutting steel plates) and slitting wide steel strips, also applies to corrosion-resistant hot-rolled narrow stainless steel strips (hereinafter referred to as narrow steel strips) and their roll-cutting specified-length steel strips (hereinafter referred to as roll-cutting steel strips).

2 Normative references

The following documents are indispensable for the application of this document. For dated references, only the dated edition applies to this document. For undated references, the latest edition (including all amendments) applies to this document.

GB/T 222 Permissible tolerances for chemical composition of steel products

GB/T 223.3 Methods for chemical analysis of iron, steel and alloy - The diantipyrylmethane phosphomolybdate gravimetric method for the determination of phosphorus content

GB/T 223.4 Alloyed steel - Determination of manganese content - Potentiometric or visual titration method

GB/T 223.5 Steel and iron - Determination of acid-soluble silicon and total silicon content - Reduced molybdosilicate spectrophotometric method

GB/T 223.8 Methods for chemical analysis of iron, steel and alloy - The sodium fluoride separation-EDTA titration method for the determination of aluminium content

GB/T 223.9 Iron steel and alloy - Determination of aluminium content - Chrom azurol S photometric method

GB/T 223.11 Iron steel and alloy - Determination of chromium content - Visual titration or potentiometric titration method

GB/T 223.16 Methods for chemical analysis of iron, steel and alloy - The chromotropic acid photometric method for the determination of titanium content

GB/T 223.18 Methods for chemical analysis of iron, steel and alloy - The sodium thiosulfate separation iodimetric method for the determination of copper content

GB/T 223.19 Methods for chemical analysis of iron steel and alloy - The neocuproine-chloroform extraction photometric method for the determination of copper content

3 Classification and code

3.1 Classification by edge state is as follows:

- a) edge-trimming, EC;
- b) non-edge-trimming, EM.

3.2 Classification by dimension and shape precision grade is as follows:

- a) thickness general precision, PT.A;
- b) thickness higher precision, PT.B;
- c) unevenness general grade, PF.A;
- d) unevenness higher grade, PF.B.

4 Order content

The contract or order according to this Standard shall include the following contents.

- a) standard number;
- b) product name;
- c) steel grade or unified digital code;
- d) dimension and precision;
- e) weight (quantity) of the delivery;
- f) surface processing type;
- h) delivery state;

5.1 Dimension and allowable deviation

5.1.1 Dimension range of steel plates, sheets and strips The nominal dimension range of steel plates, sheets and strips are shown in Table 1. The recommended nominal dimension shall comply with the specifications in

5.2 of GB/T 709-2006. According to the requirements of the demand party, and after the consultation of both supply and demand parties, products of other dimensions may adopt this table.

5.1.3 Allowable deviation of width

5.1.3.1 The allowable deviation of edge-trimming thick steel plates' width shall comply with the specifications in Table 7, and the allowable deviation of non-edge-trimming thick steel plates' width shall be determined through consultation between supply and demand parties.

5.2 Shape

5.2.1 The camber of thick steel plates, wide steel strips and roll-cutting steel plates shall comply with the specifications in Table 11.

5.2.2 The camber of narrow steel strips and roll-cutting steel strips shall comply with the specifications in Table 12.

5.2.3 The tangential inclination of thick steel plates, roll-cutting steel plates and roll-cutting steel strips shall not be more than 1% of the nominal width.

5.2.4 Unevenness

5.2.4.1 The unevenness of thick steel plates shall comply with the specifications in Table 13.

5.2.5 Shape The steel coil shall be firmly rolled and kept as cylindrical as possible without curling. The trunnion of edge-trimming (slitting) steel coils shall not be more than 35 mm, and the trunnion of the non-edge-trimming steel coils shall not be more than 70 mm.

5.2.6 Weight

5.2.6.1 Steel plates are delivered in theoretical or actual weight. The steel density shall comply with the specifications in Annex A of GB/T 20878-2007 when calculating the weight. If not specified, it shall be determined through consultation between supply and demand parties.

5.2.6.2 Steel strips shall be delivered in actual weight.

6 Technical requirements

6.1 Smelting methods Steel shall adopt the primary smelting of molten steel and furnace refining process.

6.2 Chemical composition

6.2.1 The classification, grade and chemical composition (melting analysis) of steels shall comply with the specifications in Tables 15 to

19. See Annex A for stainless steel grades in different countries. See Annex B for characteristics and uses of stainless steels.