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

GB/T 3098.21-2014

Replacing GB/T 3098.21-2008

**Mechanical properties of fasteners -- Stainless steel tapping
screws**

紧固件机械性能 不锈钢自攻螺钉

(English Translation)

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Foreword

GB/T 3098 "Mechanical properties of fasteners" includes the following sections.

- GB/T 3098.1 Mechanical properties of fasteners Bolts, screws and studs;
- GB/T 3098.2 Mechanical properties of fasteners coarse thread;
- GB/T 3098.3 Mechanical properties of fasteners set screws;
- GB/T 3098.4 Mechanical properties of fasteners fine thread;
- GB/T 3098.5 Mechanical properties of fasteners self-tapping screws;
- GB/T 3098.6 Mechanical properties of fasteners stainless steel bolts, screws and studs;
- GB/T 3098.7 Mechanical properties of fasteners rolling screws;
- GB/T 3098.8 Mechanical properties of fasteners -200 °C ~ 700 °C bolted parts used;
- GB/T 3098.9 Mechanical properties of fasteners torque type steel locking nut;
- GB/T 3098.10 Mechanical properties of fasteners non-ferrous metal manufacturing bolts, screws, studs and nuts;
- GB/T 3098.11 Mechanical properties of fasteners drilling tapping screws;
- GB/T 3098.12 Mechanical properties of fasteners - Cone proof load test;
- GB/T 3098.13 Mechanical properties of fasteners Bolts and screws with torque test and minimum torques nominal diameter 1 ~ 10mm;
- GB/T 3098.14 Mechanical properties of fasteners reaming test;
- GB/T 3098.15 mechanical properties of stainless steel fasteners nuts;
- GB/T 3098.16 mechanical properties of stainless steel fasteners Set screws;
- GB/T 3098.17 Mechanical properties of fasteners - Preloading test for detection of

hydrogen embrittlement - Parallel bearing surface method;

- GB/T 3098.18 Mechanical properties of fasteners Blind rivets testing;
- GB/T 3098.19 Mechanical properties of fasteners blind rivet;
- GB/T 3098.20 Mechanical properties of fasteners wing nut torque assurance;
- GB/T 3098.21 mechanical properties of stainless steel fasteners self-tapping screws;
- GB/T 3098.22 fasteners mechanical properties of ultrafine grained non-quenched and tempered steel bolts, screws and studs.

This section is GB/T Part of 213,098.

This section drafted in accordance with GB/T 1.1-2009 given rules.

This Part replaces GB/T 3098.21-2008 "Mechanical properties of fasteners stainless steel self-tapping screws." Section compared with the GB/T 3098.21-2008 The main changes are as follows.

- "At an ambient temperature of 15 °C ~ 25 °C", the words "at an ambient temperature of 10 °C ~ 35 °C" (see Chapter 1, 2008 Edition Chapter 1);
- The "hardness level" instead of "Performance Level" (see Chapter 1, Chapter 1 of the 2008 edition);
- New "self-tapping screw according to GB/T 5267.4 passivation, increase marked 'P'" (see Figure 1);
- Adjust the packaging and labeling requirements, the new "mark or label shall include producers and/or distributors trademark (or identification)" and "press GB/T 90.3 predetermined production lot "(see 3.2.4);
- Adjust the surface finishing requirements, the new "special orders made by self-tapping screws should notations, and applies to both self-tapping screw Nails, also apply to a label. However, self-tapping screws warehouse sent the notation applies only to labels. "(See 3.3);
- New "NOTE. Table 2 gives the chemical composition of GB/T 3098.6-2014 chemical composition of Table 1 is consistent with the relevant group" (See Chapter 4).

The partial modification of the use of ISO 3506-4:2009 "Mechanical properties of corrosion-resistant stainless steel fasteners - Part 4. Self-tapping screws" (English Edition), the main changes are as follows.

- Name to "Mechanical properties of fasteners stainless steel self-tapping screws";
- In the reference file, instead of using our standards with international standards (see Chapter 2);

--- ISO 3506-4 states. "The steel group (first part) consists of a letter" is wrong, GB read. "Steel group Do not (first part) by the letters and numbers "(see 3.1).

This part is proposed by China Machinery Industry Federation.

This part of the National Standardization Technical Committee fasteners (SAC/TC85) centralized.

This section is responsible for drafting unit. Productivity Promotion Center in the machine.

Participated in the drafting of this section. Zhoushan Zhengyuan Standard Parts Co., Ltd.

This part of the standard replaces the previous editions are.

--- GB/T 3098.21-2008.

Mechanical properties of fasteners stainless steel self-tapping screws

1 Scope

GB/T 3098 provisions of this section by the austenitic and ferritic martensitic corrosion-resistant stainless steel, at an ambient temperature of 10 °C ~ when tested at 35 °C, self-tapping screw mechanical properties. At higher or lower temperatures, the performance may be different.

This section applies to thread GB/T 5280 provisions for ST2.2 ~ ST8 self-tapping screws.

This section does not apply to special requirements, such as weldability of self-tapping screws.

NOTE: As long as the hardness level can meet all the technical requirements of the physical and mechanical, marking systems are specified in this section may be used beyond the provisions of Regulation Cells (e.g. d > ST8).

This section does not provide corrosion resistance and oxidation resistance under special circumstances, and in Appendix C shows the use of the material in a particular environment Some information. Corrosion and corrosion on the definition, see GB/T 10123.

This part of the corrosion-resistant stainless steel self-tapping screw according to the hardness grade rated.

Corrosion resistance to high temperature or below zero use, oxidation resistance and mechanical properties, can be every special occasion into by the user and the manufacturer Line Protocol. Appendix D shows the temperature under the relevant conditions, the carbon content of the risk of intergranular corrosion depends on the carbon content of the case.

All austenitic stainless steel fasteners in a solid solution state, usually non-magnetic; after cold deformation, will show some obvious magnetism (See Appendix E).

2 Normative references

The following documents for the application of this document is essential. For dated references, only the dated version suitable for use herein Member. For undated references, the latest edition (including any amendments) applies to this document.

GB/T 90.3 Fastener Quality Assurance System (GB/T 90.3-2010, ISO 16426:2002, IDT)
GB/T 3098.6 Mechanical properties of fasteners stainless steel bolts, screws and studs (GB/T 3098.6-2014, ISO 3506-1.

2009, MOD)

GB/T 4334 between metal and alloy corrosion of stainless steel corrosion test method (GB/T 4334-2008, ISO 3651-1.

GB/T 4340.1 metallic materials - Vickers hardness test - Part 1. Test method (GB/T 4340.1-2009, ISO 6507-1:2005, MOD) GB/T 5267.4 fastener corrosion resistant stainless steel passivation (GB/T 5267.4-2009, ISO 16048:2003, IDT) GB/T 5280 with a self-tapping screw thread (GB/T 5280-2002, idt ISO 1478:1999)

3.1 Mark

Tapping screw stainless steel hardness rating category and marking systems, as shown in FIG. Material marked by the dashed separated two parts.

The first part of the mark Steel Group, the second part of the mark hardness level.

Steel Group (first part) marked by the letters and numbers, including.

--- A austenitic steel;

--- C martensitic steel;