

ICS 77.140.15

CCS H 44



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

GB/T 20065-2025

Replacing GB/T 20065-2016

Screw-thread steel bars for the prestressing of concrete

预应力混凝土用螺纹钢筋

Issued on: August 29, 2025

Implemented on: March 1, 2026

**Issued by: State Administration for Market Regulation;
Standardization Administration of the PRC**

Table of Contents

Foreword	3
1 Scope	5
2 Normative References	5
3 Terms and Definitions	7
4 Classification and Designation	7
5 Ordering Contents	8
6 Manufacturing Process	8
7 Technical Requirements	9
8 Test Methods	15
9 Inspection Rules	19
10 Packaging, Marking, and Quality Certificates	21
Appendix A (Normative) Characteristic Value Inspection Rules	22

Foreword

This Document was drafted as per the rules specified in GB/T 1.1-2020 Directives for Standardization - Part 1: Rules for the Structure and Drafting of Standardizing Documents.

This Document replaced GB/T 20065-2016 Screw-Thread Steel Bars for the Prestressing of Concrete, and GB/T 33279-2017 Ribbed Bars for Track Panel. This Document is mainly based on GB/T 20065-2016, integrating the contents of GB/T 33279-2017. Compared with GB/T 20065-2016, the major technical changes of this Document are as follows besides the structural adjustments and editorial modifications.

- Add the classification of steel bars (see 4.1 of this Edition);
- Change the maximum total elongation, A_{gt} , of finishing rolling screw-thread steel bars for prestressing (see 7.2.1 of this Edition; 7.4.1 of GB/T 20065-2016);
- Change the non-metallic inclusion rating requirements for finishing rolling screw-thread steel bars for prestressing of Grade PSB1080 and above (see 7.5 of this Edition; 7.5 of GB/T 20065-2016);
- Change the recommended nominal diameter of finishing rolling screw-thread steel bars for prestressing (see 7.7.1 of this Edition; 6.1 of GB/T 20065-2016);
- Add 28 mm, 34 mm, 38 mm, and 42 mm specifications of finishing rolling screw-thread steel bars for prestressing (see 7.7.2 of this Edition);

- Change the weight and permissible deviations (see 7.7.6 of this Edition; 6.7 of GB/T 20065-2016);
- Change the tensile test method for finishing rolling screw-thread steel bars for prestressing (see 8.1 of this Edition; 8.1 of GB/T 20065-2016);
- Add the reverse bending test method for finishing rolling screw-thread steel bars for track panels (see 8.4 of this Edition);
- Change the dimensional measurement requirements (see 8.6 of this Edition; 8.5 of GB/T 20065-2016).

Please note some contents of this Document may involve patents. The issuing agency of this Document shall not assume the responsibility to identify these patents.

This Document was proposed by China Iron and Steel Association.

This Document shall be under the jurisdiction of National Technical Committee on Steel of Standardization Administration of China (SAC/TC 183).

Screw-Thread Steel Bars for the Prestressing of Concrete

1 Scope

This Document specifies the classification, designations, ordering contents, manufacturing processes, technical requirements, inspection rules, packaging, marking, and quality certificate of screw-thread steel bars for the prestressing of concrete (hereinafter referred to as steel bars);

and describes the corresponding test methods.

This Document applies to finishing rolling screw-thread steel bars for prestressing concrete (hereinafter referred to as finishing rolling screw-thread steel bars for prestressing) produced using processes such as hot rolling, post-rolling residual heat treatment, or heat treatment; and to finishing rolling screw-thread steel bars for track panels produced using hot rolling processes.

2 Normative References

GB/T 222

GB/T 223.5

GB/T 223.11

GB/T 223.12

GB/T 223.14

GB/T 223.17

GB/T 223.19

GB/T 223.23

GB/T 223.26

GB/T 223.37

GB/T 223.40

GB/T 223.59

GB/T 223.63

GB/T 223.68

GB/T 223.69

GB/T 223.83

GB/T 223.84

GB/T 223.86

GB/T 2101

GB/T 4336

GB/T 14370

GB/T 17505

GB/T 20066

GB/T 20123

GB/T 20125

GB/T 21839

GB/T 28900

GB/T 38937

3 Terms and Definitions

For the purposes of this Document, the terms and definitions given in GB/T 38937 and the following apply.

3.1 Finishing rolling screw-thread steel bars

A hot-rolled straight steel bar with discontinuous external threads, which can be connected or anchored at any cross-section using a connector or anchor with matching internal threads.

3.2 Nominal circle area

The cross-sectional area of the steel bar excluding threads.

3.3 Coefficient of efficiency section

The ratio of the nominal circle area of a steel bar to its theoretical circle area (including the cross-sectional area of the thread).

4.1 Classification

The screw-thread steel bars for prestressing concrete are classified into two categories. finishing rolling screw-thread steel bars for prestressing and finishing rolling screw-thread steel bars for track panels. The finishing rolling screw-thread steel bars for prestressing are used as prestressing tendons in prestressed concrete structures; while finishing rolling screw-thread steel bars for track panels are used as non-prestressing tendons in prestressed concrete track panels.

4.2 Designation

The composition and meaning of steel bar designations are shown in Table 1. According to the purchaser's requirements, the designations with other strength levels of finishing rolling screw-thread steel bars for track panels can be provided beyond those listed in Table 1.

5 Ordering Contents

Contracts for orders placed according to this Document shall include at least the following.

- a) This Document number;
- b) Product name;
- c) Designation;
- d) Specifications and weight (or quantity);
- e) Special requirements.

6.1 Smelting Method

Steel shall be smelted in a converter or electric arc furnace and shall be performed out-of-furnace refining.

6.2 Delivery condition and delivery type

6.2.1 Finishing rolling screw-thread steel bars for prestressing shall be delivered in straight bars in hot-rolled condition, post-rolled residual heat-treated condition, or heat-treated