



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

GB/T 718-2024

Replacing GB/T 718-2005

Pig iron for casting

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Foreword

This document is in accordance with the provisions of GB/T 1:1-2020 "Guidelines for standardization work Part 1: Structure and drafting rules for standardization documents"

Drafting: This document replaces GB/T 718-2005 "Casting iron": Compared with GB/T 718-2005, except for structural adjustments and editorial changes, In addition, the main technical changes are as follows:

a) The scope is expanded to include pig iron for ductile iron casting and high-purity pig iron for casting (see Chapter 1);

b) Added terms and definitions (see Chapter 3);

c) Added classification (see Chapter 4);

d) The grade and chemical composition of pig iron for grey cast iron have been changed (see 5:1:1, 3:1:2 of the:2005 edition);

e) Added the grades and chemical composition of pig iron for ductile iron (see 5:1:2);

f) Added the grades and chemical composition of high-purity pig iron for casting (see 5:1:3);

g) The weight of pig iron blocks is changed from "2kg~7kg" to "2kg~9kg" (see 5:3, 3:3 of the:2005 edition): Please note that some of the contents of this document may involve patents: The issuing organization of this document does not assume the responsibility for identifying patents: This document was proposed by the China Iron and Steel Association: This document is under the jurisdiction of the National Technical Committee for Standardization of Pig Iron and Ferroalloys (SAC/TC318): This document was drafted by: Metallurgical Industry Information Standards Research Institute, Hebei Longfengshan

Casting Co., Ltd., Changli County Xingguo Precision Machinery Co., Ltd. Company, Shandong Molong Petroleum Machinery Co., Ltd., Shanxi Jianbang Group Co., Ltd., Linyi Meide Gengchen Metal Materials Co., Ltd., Huangshi Xinxing Pipe Industry Co., Ltd., Saint-Gobain Piping Systems Co., Ltd., Zhongjin Metallurgical Technology Co., Ltd., Shanghai Customs Industrial Products and Raw Materials Testing Technology Center, Beijing MCC Equipment Research and Design Institute Co., Ltd., Qingdao Dehong Jinxin Technology Co., Ltd., Anhui Changjiang Iron and Steel Co., Ltd. Company, Hebei Jinxi International Trade Co., Ltd. The main drafters of this document are: Bai Jiaxin, Liu Wucheng, Zhou Guocheng, Li Zhixin, Zhang Rui, Zhang Zhiyi, Li Haishun, Xue Ning, Ju Shifeng, Liu Quanli, Guo Yulin, Liu Liqiang, Cui Shixuan, Jia Zhenbo, He Gen, Ji Aibing, Ji Zhanjun, Wang Biao, Yin Jian, Wei Zhaoqiang, Wang Jianlei, Ma Chaoyu, Chen Rong, Zhi Huibo, Li Hongtao, Liu Jinfeng, Lu Chunsheng, and Liu Yanting: This document was first issued in 1982, revised for the first time in 2005, and this is the second revision: Casting pig iron

1 Scope

GB/T 718-2024 is the Chinese standard for foundry pig iron, the charge material a grey iron or ductile iron foundry melts. It is one of the oldest standards in the system and one of the most used, because pig iron is bought by the shipload and the grade is what the price is set from. What distinguishes the grades is the silicon content and the limits on the elements that ruin a casting: phosphorus, sulfur, manganese, and above all the trace elements that interfere with nodularisation in ductile iron, so the standard is in practice a specification for what must not be in the material. The document sets the grades and their designation, the chemical composition of each, the requirements on the form and the size of the pigs and on the surface condition, the sampling and the preparation of samples, the analytical methods referred to, the inspection rules including the batching and the retest, and the marking and the accompanying quality certificate. The 2024 edition replaces GB/T 718-2005. For a blast furnace producer, a foundry or a trader in China, this is the acceptance text.

This document specifies the classification and grades, technical requirements, test methods, inspection rules, packaging, storage, transportation and quality certification of pig iron for casting: Ming book: This document applies to the production and application of pig iron for grey cast iron, pig iron for ductile iron and high-purity pig iron for foundry:

2 Normative references

The contents of the following documents constitute the essential clauses of this document through normative references in this document: For referenced documents without a date, only the version corresponding to that date applies to this document; for referenced documents without a date, the latest version (including all amendments) applies to This document: GB/T 223:

3 Methods for chemical analysis of iron, steel and alloys - Diantipyryl methane phosphomolybdic acid gravimetric method for the determination of phosphorus content GB/T 223:

5 Determination of acid-soluble silicon and total silicon content of iron and steel - Reduced molybdenum silico-silicic acid spectrophotometric method GB/T 223:

12 Methods for chemical analysis of iron, steel and alloys - Sodium carbonate separation-diphenylcarbazide photometric method for the determination of chromium content GB/T 223:

13 Chemical analysis methods for iron, steel and alloys - Ammonium ferrous sulfate titration method for determination of vanadium content GB/T 223:

14 Chemical analysis methods for iron, steel and alloys - Tantalum extraction spectrophotometric method for determination of vanadium content GB/T 223:

17 Chemical analysis methods for iron, steel and alloys - Determination of titanium content by diantipyryl methane photometric method GB/T 223:

18 Methods for chemical analysis of iron, steel and alloys - Sodium thiosulfate separation-iodine titration method for the determination of copper content GB/T 223:

19 Methods for chemical analysis of iron, steel and alloys - Determination of copper content by the new cuproline-chloroform extraction spectrophotometric method GB/T 223:

26 Determination of molybdenum content in steel and alloys - Thiocyanate spectrophotometric method GB/T 223:

29 Determination of lead content in iron, steel and alloys - Carrier precipitation-xylene orange spectrophotometric method GB/T 223:

31 Determination of arsenic content in iron, steel and alloys - Distillation separation - Molybdenum blue spectrophotometric method GB/T 223:

47 Chemical analysis methods for iron, steel and alloys - Determination of antimony content by carrier precipitation-molybdenum blue photometric method GB/T 223:

53 Chemical analysis methods for iron, steel and alloys - Determination of copper content by flame atomic absorption spectrophotometry GB/T 223: