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

GB/T 17105-2024

**Classification of aluminum-silicon dense shaped refractory
products**

铝硅系致密定形耐火制品分类

(English Translation)

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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 17105-2008 "Classification of Aluminum-Silicon System Dense Shaped Refractory Products": Compared with GB/T 17105-2008, in addition to structural adjustments and editorial changes, the main technical changes are as follows:

- a) Added terms and definitions (see Chapter 3);
- b) The classification basis, product types and groups, raw material types, raw material characteristics, names and descriptions of combination forms have been changed (see Chapter 4, Chapter 3 of the:2008 edition);
- c) The chemical analysis requirements have been changed (see 4.2, 3:2 of the:2008 edition);
- d) The description of nomenclature has been changed (see Chapter 5, Chapter 4 of the:2008 edition):

This document is modified to adopt ISO 10081-1:2003 "Classification of dense shaped refractory products Part 1: Aluminium-silicon series":

This document has made the following structural adjustments compared to ISO 10081-1:2003:

- Added Chapter 2 "Normative References";
- Added Chapter 3 "Terms and Definitions";
- 4:2 corresponds to 2:2 and 2:3 in ISO 10081-1:2003:

The technical differences between this document and ISO 10081-1:2003 and their reasons are as follows:

--- Added normative references to GB/T 18930 in Chapter 3;

---4:1a) corresponds to 2:1a) and 2:1b) in ISO 10081-1:2003, making the content more coherent;

---4:2 adds applicable national standards GB/T 6900, GB/T 6901, GB/T 21114 to improve operability and adapt to our Technical conditions of the country;

--- Changed the definition of ceramic bonding in 4:5a) to match the definition of "ceramic bonding" in ISO 836:2001 (GB/T 18930-2020) Unite:

The following editorial changes were made to this document:

--- To coordinate with the existing standards, the name of the standard is changed to "Classification of Aluminum-Silicon Dense Shaped Refractory Products":

1 Scope

This document specifies the classification and nomenclature of aluminum-silicon dense shaped refractory products:

This document is applicable to aluminum-silicon dense shaped refractory products:

This document does not apply to the following products:

- a) Products with a mass fraction of other metal oxides greater than 5%, except for aluminum oxide, silicon oxide and iron oxide;
- b) Products with a mass fraction of carbon, carbides, nitrides, nitrogen oxides and related materials greater than 1%:

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 6900 Chemical analysis methods for aluminum-silicon refractories GB/T 6901
Chemical analysis methods for siliceous refractories GB/T 18930 Terminology of Refractory
Materials GB/T 21114 X-ray fluorescence spectrochemical analysis of refractory materials -
Fused glass disc method

3 Terms and definitions

The terms and definitions defined in GB/T 18930 apply to this document:

4 Categories

4.1

Classification basis Aluminum-silicon dense shaped refractory products should be classified according to the following four criteria:

- a) Product types and groups;
- b) Type of raw materials;
- c) raw material characteristics;
- d) Combined form (including all post-processing):

4.2

Product types and groups the following general symbols are used to indicate the types of products:

- a) High Alumina (HA);
- b) clay (FC);
- c) Low-alumina clay, semi-siliceous (LF);
- d) silicate (SS);
- e) Silica (SL):