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

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Magnesium and magnesium alloy powder

镁粉 第1部分:铣削镁粉

(English Translation)

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1 Scope

This document specifies the classification, technical requirements, inspection rules, marking, packaging, transportation, storage, accompanying documents, and ordering procedures for magnesium and magnesium alloy powder.

The single content describes the experimental method.

This document applies to the production of explosives, pyrotechnics, welding electrodes, flash powder, illuminating agents, catalysts, reducing agents, chemical raw materials, and high-temperature refractory materials.

Milling magnesium powder, atomized magnesium powder, and ball milled aluminum-magnesium alloy powder are used in fields such as new energy materials, steelmaking desulfurization, powder metallurgy, and additive manufacturing.

Production and delivery.

4.1.1 Method for designating milling magnesium powder grades

4.1.1.1

The grade of milling magnesium powder is represented by 3 English letters, 2 to 4 Arabic numerals, and then 1 English letter.

4.1.1.2

The first three letters of the grade name, "FMX", are the identification code for milling magnesium powder.

4.1.1.3

The last 2 to 4 Arabic numerals of the identification code represent the maximum aperture of the sieve selected for the sieve test.

4.1.1.4

The last letter of the grade designation is a difference identifier. When the maximum aperture of the sieve selected for the sieve analysis is the same, the particle size distribution is different.

Powders with different bulk densities (or loose density). Examples are as follows.

Example.

4.1.2 Method for designating atomized magnesium powder grades

4.1.2.1

The grade of atomized magnesium powder is represented by 3 English letters, 2 to 4 Arabic numerals, and then 1 English letter.

4.1.2.2

The first three letters of the brand name, "FMW", are the identification code for atomized magnesium powder.

4.1.2.3

The last two to three Arabic numerals of the identification code represent the maximum aperture (see Example 1) or median aperture (see Example 2) of the sieve selected for the sieve test.

Example 2).

4.1.2.4

The last letter of the grade designation is a difference identifier. When the maximum aperture of the sieve selected for the sieve analysis is the same, the particle size distribution is different.

Powders with different bulk densities (or loose density). Examples are as follows.

Example 1.

Example 2.

4.1.3 Designation Method for Ball Milled Aluminum-Magnesium Alloy Powder

4.1.3.1

The grade of ball milled aluminum-magnesium alloy powder is represented by 4 English letters, 2 to 3 Arabic numerals, and then 1 English letter.

4.1.3.2

The first four letters of the grade name, "FLMQ", are the identification code for ball milled aluminum-magnesium alloy powder.

4.1.3.3

The last 2 to 3 Arabic numerals of the identification code represent the maximum aperture of the sieve selected for the sieve test.

4.1.3.4

The last letter of the grade designation is a difference identifier. When the maximum aperture of the sieve selected for the sieve analysis is the same, the particle size distribution is different.

Powders with different bulk densities (or loose density). Examples are as follows.

4.2 Categories, Grades and Typical Uses

Table 1 shows the types, grades, and typical uses of magnesium powder. If the buyer requires other types or grades, this shall be determined through negotiation between the supplier and the buyer before ordering.

Please specify in the form.

5.1 Particle size distribution, median diameter, and loose packing density

5.1.1

The particle size distribution and loose packing density of milled magnesium powder shall conform to the provisions of Table 2.

5.1.2

The particle size distribution, median diameter (D50), and bulk density of the atomized magnesium powder shall conform to the specifications in Table 3. The particle size distribution and median diameter in the table...

(D50) Two indicators, the buyer can only choose one of them when placing an order.

5.1.4

If the buyer has special requirements for particle size distribution, median diameter and loose packing density, the requirements shall be determined through negotiation between the supplier and the buyer and noted in the purchase order.

5.2 Chemical composition

5.2.1

The chemical composition of milling magnesium powder shall conform to the provisions of Table 5.

5.2.2

The chemical composition of atomized magnesium powder shall conform to the provisions of Table 6.

5.2.4

If the buyer has other requirements for the chemical composition, the supplier and the buyer shall negotiate and determine them, and indicate them in the purchase order.

5.3 Moisture

The moisture content (mass fraction) of milled magnesium powder and ball-milled aluminum-magnesium alloy powder should not exceed 0.2%, and the moisture content (mass fraction) of atomized magnesium powder should also be...