

ICS 77.150.10

CCS H 61



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

GB/T 2085.1-2026

Replacing GB/T 2085.1-2007

Aluminium powder - Part 1: Air atomized aluminium powder

铝粉 第1部分：空气雾化铝粉

Issued on: April 30, 2026

Implemented on: November 1, 2026

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

Table of Contents

4 Arabic numerals and then
4.1 Designation Method
4.1.3 The last 2 to
5 Technical Requirements
5.4 Appearance Quality
6 Test Methods
7 Inspection Rules
7.1 Inspection and Acceptance
7.4 Sampling
7.5 Judgment of Test Results
8 Marking, packaging, transport, storage and accompanying documents
8.2 Packaging
8.3 Transportation and storage

Foreword

This document complies with the provisions of GB/T 1.1-2020 "Standardization Work Guidelines Part

1. Structure and Drafting Rules of Standardization Documents". Drafting. This document is Part 1 of GB/T 2085 "Aluminum Powder". GB/T 2085 has the following parts published.

1. Air-atomized aluminum powder;

2. Ball Milled Aluminum Powder;

3. Crushing Aluminum Powder;

4. Nitrogen atomization of aluminum powder. This document supersedes GB/T 2085.1-2007 "Aluminum Powder Part

1. Air-Atomized Aluminum Powder" and is consistent with GB/T 2085.1-2007. Compared to previous versions, aside from structural adjustments and editorial changes, the main technical changes are as follows:

a) Added grades FLPA3000, FLPA71A, and FLPA71B (see 4.2);

b) The units for particle size distribution and the particle size distribution of FLPA140 have been changed (see 5.1,

3.2 of the.2007 edition);

c) The chemical composition requirements have been changed (see 5.2,

3.3 of the.2007 edition);

d) Moisture requirements have been changed (see 5.3,

3.3 in the.2007 edition);

4 Arabic numerals and then

1 English letter.

4.1.2 The "FLPA" in the grade designation is the identification code for aluminum powder.

4.1 Designation Method

4.1.1 Aluminum powder grades are represented by "FLPA" followed by 2 to

4.1.3 The last 2 to

4 Arabic numerals of the identification code represent the maximum aperture of the sieve selected for the aluminum powder sieving test.

4.1.4 The letters at the end of the grade designation are difference identifiers. When the maximum aperture of the selected sieves is the same, differences in particle size distribution and... (or) Different powders with different physical properties such as bulk density. Examples are as follows:

5 Technical Requirements

5.1 Particle size distribution and loose packing density The particle size distribution and loose packing density of aluminum powder should conform to the specifications in Table

2.If the purchaser has specific requirements for particle size distribution and loose packing density, these requirements shall be determined by both the supplier and the purchaser. The two parties agreed on the terms and the agreement was noted in the order form.

5.3 Moisture The moisture content (mass fraction) of aluminum powder should not exceed 0.1%.

5.4 Appearance Quality

5.4.1 Aluminum powder is silver-gray or gray.

5.4.2 The aluminum powder should be free of inclusions and lumps.

6 Test Methods

6.1 The particle size distribution of aluminum powder was determined according to the method in Appendix B.

6.2 The loose density of aluminum powder shall be determined according to the method in Appendix C.

6.3 The active aluminum content of aluminum powder shall be determined according to the method in Appendix D. Other chemical composition analyses of aluminum powder shall be performed according to GB/T 20975 (all parts). The procedure shall be carried out in accordance with the provisions of (points).

6.4 The moisture content of aluminum powder shall be determined according to the method in Appendix E.

6.5 The appearance quality of aluminum powder shall be inspected visually.

7.1 Inspection and Acceptance

7.1.1 The supplier shall inspect the products to ensure that the product quality meets the requirements of this document and the purchase order, and fill out a quality certificate.

7.1.2 The buyer shall inspect the received products in accordance with the provisions of this document. If the inspection results do not conform to the provisions of this document or the purchase order, the buyer shall... Objections should be submitted to the supplier in writing and resolved through negotiation between the supplier and the buyer. Objections concerning appearance quality and particle size distribution should be raised within one year of receipt of the product. Objections should be raised within one month of receipt of the product. Objections concerning other performance aspects should be raised within three months of receipt. Arbitration may be requested from both the supplier and the buyer. The sampling was conducted by an approved organization and carried out jointly by the buyer and seller.

7.2 Batching Aluminum powder should be submitted for acceptance in batches, each batch consisting of the same grade of aluminum powder, with a batch weight not exceeding 5000 kg. If the buyer has specific requirements regarding batch weight, please contact us. Requirements can be negotiated with the supplier and noted in the order form.

7.3 Inspection Items Each batch of products should be inspected for particle size distribution, loose density, chemical composition, moisture content, and appearance quality before being put into storage and shipped out.

7.4 Sampling

7.4.1 Each batch of aluminum powder shall be sampled and divided according to the

provisions of GB/T 5314. The sample shall be mixed evenly and divided into portions of not less than 250g using the quartering method. Two equal portions of the sample.

7.4.2 Place two samples into separate dry, sealed containers. One sample is for testing and analysis, and the other is to be stored in the laboratory for 6 months for arbitration. For analysis purposes.

7.5 Judgment of Test Results

7.5.1 If the particle size distribution or loose density test results do not conform to the requirements of this document, double the number of pieces shall be taken from the batch. The items specified in the document shall be re-inspected. If the results of the re-inspection still do not comply with the requirements of this document, the batch of products shall be deemed unqualified. However... With the mutual agreement of both parties, each item may be inspected individually, and only those that pass inspection shall be delivered.

7.5.2 If the chemical composition does not conform to the provisions of this document, the batch of products shall be deemed unqualified.

7.5.3 If the moisture content does not meet the requirements of this document, the batch of products shall be deemed unqualified.

7.5.4 If the appearance quality does not meet the requirements of this document, the batch of products shall be deemed unqualified.

8 Marking, packaging, transport, storage and accompanying documents

8.1 Marking Mark each package with paint or other non-fading pigment.

- a) Name and trademark of the manufacturing unit;
- c) Batch number;
- e) This document number;
- f) Production date;
- g) Dangerous goods signs, the size, color and method of use of the signs shall comply with the provisions of GB 190.

8.2 Packaging

8.2.1 Aluminum powder shall be packaged in metal containers, cartons, paper drums, or woven plastic bags lined with moisture-proof plastic bags. The inner and outer packaging shall be tightly sealed. Dense, intact and undamaged.

8.2.2 The outer packaging plastic woven bags should be waterproof and leak-proof, with an