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YS

**NONFERROUS METALS INDUSTRY STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

YS/T 637-2022

Lithium phosphate

磷酸锂

(English Translation)

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Table of Contents

Foreword...	3
1 Scope...	5
2 Normative references...	5
3 Terms and definitions...	5
4 Product classification...	5
5 Technical requirements...	5
6 Test methods...	7
7 Inspection rules...	7
8 Marking, packaging, shipping, storage and accompanying documents...	8
9 Order sheet content...	10

Foreword

This document was drafted in accordance with the rules given in GB/T 1.1-2020

"Directives for standardization - Part 1: Rules for the structure and drafting of standardizing documents".

This document replaces YS/T 637-2007 "Lithium phosphate for production of colored phosphor powder". Compared with YS/T 637-2007, in addition to the structural adjustments and editorial modifications, the main technical changes in this document are as follows:

- a) Change the scope of application (see Chapter 1 of this Edition; Chapter 1 of Edition 2007);
- b) Replace some referenced documents (see Chapter 2 of this Edition; Chapter 2 of Edition 2007);
- c) Change and add the designations of lithium phosphate (see Chapter 4 of this Edition; 3.1 of Edition 2007);
- d) Add chemical composition indexes of Co, Mn, Al, Na, Si, Zn, , Cr, and Cd in lithium phosphate (see 5.1 of this Edition; 3.2 of Edition 2007);
- e) Delete the requirements for granularity (see 3.3 of Edition 2007);

- f) Add the requirements for product moisture content (see 5.2 of this Edition);
- g) Change the test method (see Chapter 6 of this Edition; Chapter 4 of Edition 2007);
- h) Change the inspection rules (see Chapter 7 of this Edition; Chapter 5 of Edition 2007);
- i) Change the marking, packaging, transportation and storage (see Chapter 8 of this Edition; Chapter 6 of Edition 2007).

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. The issuing authority shall not be held responsible for identifying any or all such patent rights.

This document was proposed by and shall be under the jurisdiction of National Technical Committee on Nonferrous Metals of Standardization Administration of China (SAC/TC 243).

The drafting organizations of this document: Jiangxi Ganfeng Lithium Industry Co., Ltd., Xinjiang Nonferrous Metals Research Institute, Guangdong Bangpu Recycling Lithium phosphate

1 Scope

This document specifies the product classification, technical requirements, test methods, inspection rules, marking, packaging, transportation, storage, accompanying documents and order sheet content of lithium phosphate.

This document applies to lithium phosphate prepared by various methods.

2 Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

GB/T 191, Packaging -- Pictorial marking for handling of goods

GB/T 6284, Chemical products for industrial use -- General method for determination of water content -- The loss of mass on drying method

GB/T 6678, General principles for sampling chemical products

3 Terms and definitions

There are no terms or definitions to be defined in this document.

4 Product classification

Products are divided into four designations according to chemical composition: Li_3PO_4 -1, Li_3PO_4 -2, Li_3PO_4 -3 and Li_3PO_4 -4.

5.1 Chemical composition

The chemical composition of the product shall comply with the requirements in Table 1.

Table 1 -- Chemical composition

7.4.2 Use a small stainless steel sampling tube or a hard polyethylene sampler to sample

the material from the 1/2 depth of the packaging bag from the mouth of each packaging bag. The three sampling points are evenly distributed.

7.4.3 The sampling volume shall not be less than 500 g. After the sample is mixed evenly, it is divided into the required amount using the quartering method in a dry environment.

7.5.1 If any of the product's chemical composition and moisture inspection results are

unqualified, double sampling will be done in the batch of products and reinspection will be conducted on the unqualified items. If there is still one unqualified item, the batch of products will be deemed unqualified.

7.5.2 If the appearance quality inspection result of the product fails, the batch of products will be deemed to be unqualified.

8 Marking, packaging, shipping, storage and accompanying

documents

8.1 Marking

Product markings shall indicate:

- a) Product name;
- b) Designation;
- c) Batch number;
- d) Net weight;
- e) Packaging date;
- f) Supplier's name;
- g) "Afraid of rain" mark in GB/T 191.

8.2.1 The inner layer of the product is sealed and packaged in a double-layer

polypropylene or polyethylene plastic bag. The net weight of each bag is $25\text{ kg} \pm 0.025\text{ kg}$.

8.2.2 When the purchaser has special requirements for packaging, the supplier and

purchaser can negotiate.

8.3 Transportation

Care shall be taken to prevent moisture during product transportation.

8.4 Storage

Products shall be stored in a dry place.

8.5 Accompanying documents

Each batch of products shall be accompanied by accompanying documents, which shall include, in addition to supplier information, product information, this document number, exit-factory date or packaging date, the followings:

- a) Product quality guarantee; the content is as follows:
 - Main performance and technical parameters of the product;
 - Product characteristics (including manufacturing process and raw material characteristics);