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

GB/T 17431.2-2010

Replacing GB/T 17431.2-1998

**Lightweight aggregates and its test methods -- Part 2: Test
methods for lightweight aggregates**

轻集料及其试验方法 第2部分：轻集料试验方法

(English Translation)

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Foreword

GB/T 17431 "Light aggregate and its test method" is divided into two parts.

---Part 1. Light aggregates;

--- Part 2. Light aggregate test method.

This part is the second part of GB/T 17431, and EN13055.1:2002 "Light aggregates Part 1. Concrete, mortar and mortar the degree of consistency of the use of light aggregates is non-equivalent.

This part replaces GB/T 17431.2-1998 "Light aggregates and their test methods - Part 2. Test methods for light aggregates".

Compared with GB/T 17431.2-1998, the main changes in this section are as follows.

--- The analysis of coarse, fine and light aggregate screens was changed to square hole screen (5.2 of 1998 edition, 5.2 of this edition);

--- Revised the provisions for the use of capacity cartridges in the bulk density test (6.2 of the 1998 version, 6.2 of this edition);

--- Corrected the apparent density calculation formula (7.4 of the 1998 version, 7.4 of this edition);

--- Revised the filling method in the cylinder compressive strength test (9.3.2 of the 1998 edition, 9.3.2 of this edition);

--- Revised the graphical method to determine the strength of the ceramsite label (1998 version of 10.7.2, 10.4.3 of this edition);

--- Added the method for determining the water absorption rate of 24h (11.3.2 of the 1998 edition, 11.3.2 of this edition);

--- Cancel the statistical test of the homogeneity index (Chapter 15 of the 1998 edition);

--- Corrected the calculation formula for the loss on ignition (18.5 of the 1998 version, 16.5 of this edition).

This part is proposed and managed by the China Building Materials Federation.

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Development Co., Ltd., Chaoyang Hualong Science and Technology Co., Ltd.

1 Scope

This part of GB/T 17431 specifies the general provisions of the light aggregate test method, sampling, particle grading (screen analysis), bulk density, table Density, void ratio, cylinder strength, label, water absorption, softening coefficient, grain type coefficient, mud content and mud content, boiling quality loss, Test methods for loss on ignition, sulphide and sulphate content and organic matter content.

This section applies to the quality inspection of lightweight aggregates for concrete. Lightweight aggregates for other categories and uses are also referred to.

2 Normative references

The terms of the following documents become the provisions of this part by reference in this part of GB/T 17431. Quotations with dated and all subsequent amendments (not including errata content) or revisions do not apply to this section, however, encouragement is achieved in accordance with this section.

The parties to the agreement study whether the latest versions of these documents can be used. For undated references, the latest edition applies to this section.

GB 6566 building materials radionuclide limited GB/T 6003.1-1997 Wire woven mesh test sieve (eqvISO 3310-1.1990) GB/T 6003.2-1997 Metal perforated plate test sieve (eqvISO 3310-2.1990) GB/T 14684-2001 Building sand GB/T 17431.1-2010 Light aggregates and

their test methods - Part 1. Light aggregate

3 General regulations

3.1

The light aggregate samples used for the test shall be dried to a constant amount at a constant temperature of 105 ° C ~ 110 ° C. When the sample is dry to constant when measuring, the interval between two adjacent weighings shall not be less than 2h. When the difference between two adjacent weighing values is not greater than the accuracy required by the test, it is called a constant value.

3.2

The reagents used in the tests for sulfur trioxide content in this standard shall be of analytical grade and the water shall be distilled water.

3.3

The test should be filled out with the corresponding test report. The contents of the test report should generally include.

- a) light aggregate category and test number;
- b) test items;
- c) the recording of data;
- d) calculation and value of test results;
- e) result evaluation and implementation of the standard number;
- f) Test date and test personnel, etc.

4 Sampling

4.1

Representative samples should be randomly selected from each batch of product.

4.2

The initial sample taken shall be not less than 10 parts, and the total amount of the sample shall be more than double the amount of the test material (according to Table 1).

4.3

The initial sampling shall meet the following requirements.

- a) When conducting routine inspections in a manufacturing enterprise, it shall be at a certain time interval over the entire width of the conveyor to the silo or pile.

Internal extraction