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

GB/T 26567-2011

**Test method for the grindability of cement raw materials (Bond
method)**

水泥原料易磨性试验方法（邦德法）

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Quarantine;
Standardization Administration of the PRC**

Table of Contents

- 1 Scope
- 2 Normative references
- 3 Terms and Definitions
- 4 Test principle

Foreword

This standard was drafted in accordance with GB/T 1.1-2009 given rules. The standard proposed by China Building Materials Federation. This standard by the National Standardization Technical Committee cement (SAC/TC184) centralized. This standard was drafted. Tianjin Cement Industry Design and Research Institute Limited. The main drafters of this standard. Nixiang Ping, THE STAFF Wangzhong Chun, Ji-open, white wave, Chen Dongming. Grindability test method cement raw materials are easily (Bond Act)

1 Scope

China's national test method for the grindability of cement raw materials by the Bond procedure. It specifies the principle, the apparatus, the specimen preparation, the test procedure and the calculation of the Bond work index of the limestone, clay, sand, iron ore and other materials fed to a cement raw mill. Grinding is where a cement works spends its electricity. Raw material preparation and finish grinding together account for most of the plant's power consumption, and the mills are sized, selected and paid for on the basis of how hard the material is to grind - so a number that predicts that, before the plant is built and before a contract is signed, is worth a great deal. The Bond work index is that number: the energy in kilowatt hours required to reduce one short ton of material from a theoretically infinite size to a size at which eighty per cent passes a hundred micrometres. It is not a physical constant of the rock but the output of a defined procedure, and it is useful precisely because the procedure is fixed. The test is a locked-cycle simulation of a closed-circuit mill: a charge of steel balls of specified sizes in a mill of specified dimensions, a defined number of revolutions, then screening at the chosen closing size, replacement of the undersize with fresh feed, and repetition until the circulating load stabilises at two hundred and fifty per cent. The work index is then calculated from the grams of undersize produced per mill revolution at equilibrium. Every part of that has to be prescribed, because the result is a comparison and not a measurement: change the ball charge, the mill, the closing screen or the number of cycles and the number changes. Issued on 16 June 2011 and in force since 1 February 2012.

This standard specifies the cement raw material grindability test terms and definitions, test principle, test equipment, sample preparation, test procedures and test The method of calculation and presentation of results. This standard applies to the cement raw material grindability test.

2 Normative references

The following documents for the application of this document is essential. For dated references, only the dated version suitable for use herein Member. For undated references, the latest edition (including any amendments) applies to this document. GB 308 Rolling Ball

GB 474 coal sample preparation

GB/T 6003.1 woven wire mesh test sieve (idt ISO 3310-1.1990)

3 Terms and Definitions

The following terms and definitions apply to this document.

3.1 Grinding Work Index grindingworkindex According to Bond Index (FCBond) crushing theory, showing cement raw material grindability. 3.2 80% of the particle size 80% passingsize Particulates having a particle size distribution of 80% by mass of the particles can be passed the mesh size.

3.3 Finished screen productsieve Test sieve for separating the finished product from the material.

3.4 Circulating load circulatingload Mill discharged materials, the need to return to the mill and coarse powder mass ratio of the finished product through the sieve of fine quality.

3.5 Equilibrium equilibriumstate Three consecutive grinding, cyclic loading are in line with $(250 \pm 5)\%$, and the mill per revolution of the poor quality of the finished product is less than the average 3%.

4 Test principle

Using a predetermined mill for grinding samples intermittent cycle, according to the equilibrium state of the mill output and product size, and the sample size and Finished mesh sizes calculated grinding work index sample.