

ICS 13.230
CCS C67



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

GB/T 16430-2018

Replacing GB/T 16430-1996

**Determination of the minimum ignition temperature of dust
layer**

粉尘层最低着火温度测定方法

Issued on: December 28, 2018

Implemented on: July 1, 2019

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

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Foreword

This standard was drafted in accordance with the rules given in GB/T 1.1-2009. This standard replaces GB/T 16430-1996 "Determination of the minimum ignition temperature of dust layer", compared with GB/T 16430-1996, the main technical changes are as follows:

- Revised scope (see Chapter 1, Chapter 1 of the.1996 edition);
 - Added a chapter on normative references (see Chapter 2);
 - Revised the definition of the minimum ignition temperature of the dust layer (see 3.2, 2.2 of the.1996 edition);
 - Increased the definition of ignition time (see 3.3);
 - Revised the requirements for the sample (see Chapter 4);
 - Revised the requirements for the test device (see Chapter 5, Chapter 4 of the.1996 edition);
 - Increased the "interference" content of the test device (see 5.7);
 - Revised the requirements for security measures (see 6.1, 5.1 of the.1996 edition);
 - Modified the description of the determination steps (see 6.3.3, 5.3.3 of the.1996 edition);
 - Revised the expression of the test results (see Chapter 7, Chapter 6 of the.1996 edition).
- Please note that some of the contents of this document may involve patents. The issuing organization of this document is not responsible for identifying these patents. This standard was proposed by the Emergency Management Department of the People's Republic of

China. This standard is under the jurisdiction of the National Safety Production Standardization Technical Committee (SAC/TC288). This standard was drafted. China Coal Science and Technology Group Chongqing Research Institute Co., Ltd. The main drafters of this standard. Li Runzhi, Zhang Yinhe, Si Rongjun, Ma Bin, Wang Lei. The previous versions of the standards replaced by this standard are.

1 Scope

GB/T 16430-2018 is the Chinese national standard on determination of the minimum ignition temperature of dust layer, in the field of environment and health protection, safety. The /T suffix marks it as a recommended standard: it is not compulsory by itself, but it becomes binding as soon as a contract, a tender or a customer specification calls it up - which in practice is how most foreign buyers meet it. It was issued on 28 December 2018 by the State Administration for Market Regulation; Standardization Administration of China, and has been in force since 1 July 2019. Classification: ICS 13.230, CCS C67. This page is published from the official record of the standard held by the Chinese standards administration: the identification, the dates, the classification and the issuing body are taken from there. The clause text, the tables and the numeric limits are in the document itself, which is delivered complete in English translation.

This standard specifies the sample, test device, measurement procedure and measurement results for the determination of the minimum ignition temperature of the dust layer. This standard applies to flammable dust that relies on oxygen in the air to maintain its oxidation reaction. This standard does not apply to explosives or substances that can be burned without relying on oxygen in the air.

2 Normative references

The following documents are indispensable for the application of this document. For dated references, only dated versions apply to this article. Pieces. For undated references, the latest edition (including all amendments) applies to this document.

GB/T 15604 dust explosion-proof terminology

3 Terms and definitions

The following terms and definitions as defined in GB/T 15604 apply to this document.

3.1 Dust layer on fire ignition of dust layer The test dust layer is flameless or flaming, or its temperature reaches 450 °C and above, or its temperature rise reaches or exceeds the hot surface temperature. The state at 250 °C.

3.2 Dust layer minimum ignition temperature minimum ignition temperature of dust layer The lowest temperature of the hot surface at which the dust layer of a specified thickness on the

hot surface is ignited.

Note. Dust is present in many processes. The ignition of the dust layer depends on the actual working conditions. This standard does not necessarily represent all process conditions, such as the thickness of the dust layer. And factors such as ambient temperature distribution.

3.3 Fire time ignitiontime It is heated from the time the dust reaches the maximum temperature or when there is a fire.

4 Sample

Dust samples should be made homogeneous and representative. Dust samples shall be capable of passing through a metal mesh or square-hole plate with a nominal aperture of 75 μm . Screening. If it is necessary to test with coarser dust, it can pass the test sieve with a nominal pore size of up to 500 μm and should be said in the test report. The test sieve mesh size. During the preparation of the sample, any significant changes in the nature of the dust should be stated in the test report, such as screening or temperature, humidity The change.