

ICS 13.040.30
CCS C 67



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

GB/T 16913.1-1997

Replacing GB/T 16913.1 ~.11-1997

**Methods of dust character test
(English Translation)**

Issued on: December 15, 2008

Implemented on: October 1, 2009

Issued by: Standardization Administration of China

Table of Contents

Introduction

1 Scope

2 Normative references

3 Terms and definitions

4 Test Method

4.1 Test Dust sampling

4.2 Determination of effective density (specific gravity bottle method)

4.3 Determination of bulk density (bulk natural law)

4.4 Determination of dispersivity (Anderson pipette method)

4.5 Determination of repose angle (defining the bottom surface of the injection method)

4.6 Determination of hygroscopic (moisture absorption method)

4.7 Determination of moisture content (drying)

4.8 Determination of infiltration (penetration rate method)

4.9 Determination of cohesion (vertical pull-off method)

4.10 Determination of field resistivity (Disk Method)

4.11 Dust measurement conditions (filter concentric ring method) 16 specific resistance

Foreword

Instead of following standards from Japan since the implementation of the standard.

GB/T 16913.1-1997 "dust character test - Part 1. Test Dust sampling" GB/T 16913.2-1997 "dust character test - Part 2. Determination of effective density Pyknometer" GB/T 16913.3-1997 "dust character test - Part 3. Determination of bulk density of natural stacking method" GB/T 16913.4-1997 "dust character test - Part 4. Determination of dispersivity Anderson pipette Law" GB/T 16913.5-1997 "dust character test - Part 5. Determination of repose angle of the bottom surface defining injection method" GB/T 16913.6-1997 "dust character test - Part 6. Determination of hygroscopic moisture absorption Law" GB/T 16913.7-1997 "dust character test - Part 7. Determination of moisture content drying method" GB/T 16913.8-1997 "dust character test - Part 8. Determination of the penetration rate of invasive Law" GB/T 16913.9-1997 "dust character test - Part 9. Determination of cohesion vertical pull off Law" GB/T 16913.10-1997 "dust character test - Part 10. Determination of electrical resistivity disc method" GB/T 16913.11-1997 "dust character test - Part 11. Determination of resistance than the condition of dust filter concentric Circle method " this standard and GB/T 16913.1 ~ 16913.11-1997 compared to the main changes

are as follows.

- Original 11 standard integrated into a standard, the standard name to "dust character test";
- According to GB/T 1.1-2000 requirements of the standard text formats and standardized layout and editorial changes;
- Increasing the scope of this standard in the scope;
- Original GB/T 16913.4-1997 term in 3.1 to "dust dispersion", "dust particle size distribution" as synonyms;
- Delete the words "the number of dust particle size distribution" description;
- Increase the standard unit described in the relevant terminology statements;
- Deleted the provisions related equipment "and other routine laboratory equipment," the words;
- Original standard precision to the level of accuracy;
- Increasing the geometric standard deviation is calculated in 4.4.6;
- Original Appendix of this standard as a standard informative annex;
- Added A. Appendix A 2 Select and immersion A. 4 measurement results Terms;
- Remove the Appendices B and C in the name of device models;
- Increased by reference.

This standard Annex A, Annex B and Annex C is informative appendix.

This standard was proposed by the State Administration of Work Safety.

This standard produced by the National Technical Committee of Standardization Technical Committee of dust and poison safety.

This standard was drafted. Steel Group, Wuhan Research Institute of safety and environmental protection, the State Labor Protection Products Quality Supervision and Inspection Center (Wuhan).

Drafters of this standard. Xu Ping, Wang, Li Xiaofei, Zhu Hongfeng, Cheng Jun, Liu Hongbin.

This standard is the first edition published in 1997 and 2008, the first revision.

Methods of dust character test

1 Scope

This standard specifies the method of collecting dust character test sample, provides effective dust density (specific gravity bottle method), bulk density of dust (from However, deposition method), dust dispersion (Anderson pipette method), dust repose angle (defining the bottom surface of the injection method), dust hygroscopic (moisture absorption method), pink Dust and moisture (drying), dust infiltration (penetration rate method), dust adhesion (vertical pull-off method), dust specific resistance (disk method), dust conditions Specific resistance (concentric ring filter method) test methods.

This standard applies to industrial or productive dust character test.

This standard applies to the collection of dust character test sample and apply effective dust density, bulk density of dust, dust dispersion, dust Angle of repose, hygroscopic dust, dust, moisture content, infiltration of dust, dust adhesion, specific resistance of dust and dust conditions resistivity measurement.

2 Normative references

The following documents contain provisions which, through reference in this standard and become the standard terms. For dated references, subsequent Amendments (not including errata content) or revisions do not apply to this standard, however, encourage the parties to the agreement are based on research Whether the latest versions of these documents. For undated reference documents, the latest versions apply to this standard.

GB/T 9079 industrial furnace soot test methods GB/T 12573 cement sampling method

3 Terms and Definitions

The following terms and definitions apply to this standard.

It can be suspended in the air in the tiny solid particles.

Non-porous mass per unit volume of dust, with g/cm³ representation.

The internal volume of closed cells comprises a dust mass per unit volume, including dust, with g/cm³ Fig.

The true density of the dust and dust known as the false density effective density, with g/cm³ representation.

Including the quality gap between the dust and dust, including the internal pores per unit volume of dust loose body with g/cm³ representation.

Dust in various particle sizes or particle size range of the percent of dust particles. Law is the quality of statistics in the form of dust particle size characterization of the quality points