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

GB/T 26645.4-2018

**Particle size analysis -- Gravitational liquid sedimentation
methods -- Part 4: Balance method**

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Foreword

GB/T 26645 "Particle size analysis liquid gravity sedimentation method" is divided into the following parts.

- Part 1. General;
- Part 2. Fixed pipette method;
- Part 3. X-ray gravity method;
- Part 4. Balance method.

This part is the fourth part of GB/T 26645.

This part is drafted in accordance with the rules given in GB/T 1.1-2009.

This section uses the translation method equivalent to ISO 13317-4:2014 "Liquid gravity sedimentation method for particle size distribution Part 4. Day

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The documents of our country that have a consistent correspondence with the international documents referenced in this part are as follows.

- GB/T 15445.1-2008 Expression of particle size analysis results Part 1. Graphical characterization (ISO 9276-1:1998, IDT);
- GB/T 20099-2006 Method for dispersion of sample preparation powder in liquid (ISO 14887:2000, IDT);
- GB/T 26645.1-2011 Particle size analysis - Gravity sedimentation method - Part 1. General (ISO 13317-1:2001, IDT).

This section also made the following editorial changes.

- Modified the standard name.

This part is proposed and managed by the National Technical Committee for Particle Characterization and Separation and Screen Standardization (SAC/TC168).

This section drafted by. National Non-metallic Mineral Deep Processing Product Quality Supervision and Inspection Center, Anhui Guotai Zhongxin Detection Technology Co., Ltd.

Mechanical Science Research Institute Qingdao Branch Co., Ltd., China Metrology University, Peking University First Technology Industrial Co., Ltd., China Machine Productivity Promotion

Heart, Anhui Institute of Quality and Standardization, Beijing Physical and Chemical Analysis and Testing Center, Institute of Process Engineering, Chinese Academy of Sciences.

Introduction

This part of GB/T 26645 describes a method for determining the particle size distribution by measuring the sedimentation mass of a particle by means of a balance.

A mass-based particle size distribution is obtained by directly measuring the mass of the particles. The Stokes particle size results obtained by this method do not use any fit parameter.

Particle size analysis

Part 4. Balance method

1 Scope

This part of GB/T 26645 specifies a method for analyzing the particle size distribution using the mass of gravity-sinking particles of the weighing liquid.

The method directly measures the mass of the particles and gives a particle size distribution of equivalent spherical diameter. Typical sample measured by liquid gravity sedimentation

The particle size range is from 1 μ m to 100 μ m, and the sedimentation conditions with a Reynolds coefficient of not more than 0.25 should be satisfied.

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.

ISO 9276-1 Particle Size Analysis Results Presentation Part 1. Graphical Representation
(Representation of results of particle analysis - Part 1. Graphical representation)

ISO 13317-1 - Gravimetric analysis - Gravity sedimentation method - Part 1. General.

Guidance by gravimetric and liquid sedimentation methods - Part 1. General principles and guidelines)

ISO 14887 Sample Preparation Powder Dispersion Method in Liquid

(Sample preparation - Dispersing procedures for

Powders in liquids)

ISO 14488 Sampling and reduction of particle material properties measurement

(Particulate materials - Sampling and sample

splitting for the determination of particulate properties)

3 Terms and definitions

The following terms and definitions defined by ISO 13317-1 apply to this document.

3.1

Particle apparent density apparent particle density

The mass of the particles is divided by the volume including all internal pores of the particles.

4 symbol

The symbols in Table 1 apply to this document.