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

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**Fine ceramics - Determination of content of coarse particles in  
ceramic powders - Wet sieving method**

精细陶瓷 陶瓷粉体中粗颗粒含量的测定 湿筛法

**(English Translation)**

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### Foreword

This document is in accordance with the provisions of GB/T 1.1-2020 "Guidelines for standardization work Part 1: Structure and drafting rules for standardization documents" Drafting.

This document is modified to adopt ISO 24369:2005 "Fine ceramics (advanced ceramics, advanced technical ceramics) - Determination of the content of fine ceramics in ceramic powders by wet sieving method" Coarse particle content.

Compared with ISO 24369:2005, this document has many structural adjustments. The table below shows the structural number changes between the two documents. See Appendix A. This document has many technical differences compared to ISO 24369:2005.

A list of these technical differences and their causes is given in Appendix B. The following editorial changes have been made to this document.

--- To coordinate with the existing standard, the name of the standard is changed to "Fine ceramics - Determination of coarse particle content in ceramic powders - Wet sieving method";

--- Added Appendix A (informative) "Comparison of this document with ISO 24369:2005 structure numbers";

--- Added Appendix B (informative) "Technical differences between this document and ISO 24369:2005 and their causes";

--- Deleted the description of the repeated steps of sieve washing in 7.9;

---Change the tables in Chapter 9 to example diagrams (Figures 1 to 3).

### 1 Scope

This document specifies the measurement procedure for the coarse particle content of fine ceramic powders or fine ceramic suspensions using a liquid-based wet sieving method.

Calculation method and test report.

This document is applicable to the measurement of coarse particles in fine ceramic powders with micron and submicron particle sizes (coarse particle content greater than 10 mg/kg). content.

**NOTE:** For operators new to this test method, it is recommended that they practice with a powder or slurry containing a known amount of coarse particles as a reference powder.

## 2 Normative references

This document has no normative references.

## 3 Terms and Definitions

The following terms and definitions apply to this document.

### 3.5

The mass of material remaining on the screen after the screening process

### 3.1 Coarse particles

Particles and agglomerates remaining on a 500-mesh (25  $\mu\text{m}$ ) sieve.

### 3.2

The ratio of the mass of coarse particles to the total mass of the powder sample being analyzed.

### 3.3 Suspension

A slurry in which ceramic powder is uniformly dispersed in a liquid phase.

### 3.4 Solid content

The ratio of the mass of powder in the suspension to the total mass of the suspension (powder liquid phase).

## 4 Principles

Prepare the powder sample into a suspension, or take a sample directly from the suspension, and place the sieve in the liquid phase to slowly Slowly pour it completely onto the screen, and pour the liquid into the screen several times to disperse and flush the blocked material until the material on the screen cannot pass through the screen.

The coarse particle content in the ceramic powder sample is calculated based on the sieve residue and the total mass of the powder sample.