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

GB/T 39696-2020

**Determination of flowability of fine ceramic powders. Calibrated
funnel**

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Standardization Administration**

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Foreword

This standard was drafted in accordance with the rules given in GB/T 1:1-2009:

This standard uses the redrafting method to amend and adopt ISO 14629:2012 "Fine Ceramics (Advanced Ceramics, Advanced Technical Ceramics) Ceramic Powder

Determination of terminal fluidity:"

Compared with ISO 14629:2012, this standard has many structural adjustments: Appendix A lists the differences between this standard and ISO 14629:2012:

A list of chapter number comparisons:

The technical differences between this standard and ISO 14629:2012 and the reasons are as follows:

--- Regarding normative reference documents, this standard has made adjustments with technical differences to adapt to my country's technical conditions and adjustments:

The situation is reflected in Chapter 2 "Normative Reference Documents", and the specific adjustments are as follows:

* Deleted ISO 80000-1, ISO /IEC 17025;

* Replace ISO 565 (see 4:4) with GB/T 6005 modified to adopt international standards:

This standard also made the following editorial changes:

---The name of the standard was revised to "Standard Funnel Method for the Determination of Flowability of Fine Ceramic Powder":

This standard was proposed by the China Building Materials Federation:

This standard is under the jurisdiction of the National Industrial Ceramics Standardization Technical Committee (SAC/TC194):

Drafting organizations of this standard: Shandong Industrial Ceramics Research and

Design Institute Co., Ltd., China Building Materials Inspection and Certification Group Zibo Co., Ltd., Hefei

Gutai Automation Co., Ltd., Hunan Yangdong Electric Porcelain Electric Co., Ltd., Sinoma Jiangxi Electric Porcelain Electric Co., Ltd:

1 Scope

This standard specifies the principle, device, sample preparation, test procedure, and result measurement of fine ceramic powder using the standard funnel method:

Calculation and test report:

This standard applies to granulated ceramic powder and non-granulated ceramic powder that can freely flow through the specified aperture:

2 Normative references

The following documents are indispensable for the application of this document: For dated reference documents, only the dated version applies to this article

Pieces: For undated references, the latest version (including all amendments) applies to this document:

GB/T 6005 Test sieve The basic size of woven wire mesh, perforated plate and electroformed sheet screen hole (GB/T 6005-

2008, ISO 565:1990, MOD)

3 Principle

Measure the time required for 50:0g of ceramic powder to flow through the standard-sized funnel hole, and divide the outflow time by the mass of the outflow powder to obtain a single

The quality of the powder flowing out of the funnel within the set time is used to characterize the fluidity of the powder:

4 devices

4:1 Standard funnel

Made of non-magnetic, corrosion-resistant, material with certain strength and hardness (such as 304 stainless steel), the structure and dimensions are shown in Figure 1:

As shown, the apertures are 2:5mm and 5:0mm respectively:

4:2 Collector

The structure and dimensions of the cylindrical stainless steel barrel are shown in Figure 2:

4:3 Stand and base

The test stand and base should be level and free of vibration: The structure is shown in Figure 3: The standard funnel hole should be approximately above the collector:

At 50mm:

4:4 Test sieve

Meet the requirements of GB/T 6005, a metal sieve with an aperture of 0.71mm:

4:5 Balance

The accuracy is better than 0.1g: When weighing fluffy powder materials, choose a balance with an accuracy of 0.01g:

4:6 Stopwatch

The accuracy is $\pm 0.1s$: