

ICS 25.100.70

CCS J 43



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

GB/T 2492-2017

Replacing GB/T 2492-2003

**Bonded abrasive products -- Permissible unbalances of
grinding wheels as delivered -- Testing**

固结磨具 交付砂轮允许的不平衡量 测量

(English Translation)

Issued on: December 29, 2017

Implemented on: July 1, 2018

**Issued by: General Administration of Quality Supervision, Inspection and
Quarantine of the People's Republic of China, Standardization
Administration of the People's Republic of China**

Table of Contents

Foreword

1 Scope

2 Normative references

3 Terms and definitions

Foreword

This standard was drafted in accordance with the rules given in GB/T 1.1-2009.

This standard replaces GB/T 2492-2003 "Ordinary abrasive grinding wheel to allow the unbalance measurement", and GB/T 2492-2003 compared to the main technical changes are as follows.

--- Modify the contents of the first part of the description (see Chapter 1, 2003 edition Chapter 1);

--- Modify the requirements of the balance shaft and the wheel hole clearance and the balance shaft hardness described (see Chapter 5, 2003 version 5 chapter);

--- Modify the sixth chapter Table 1 part of the model k wheel requirements (see Table 1, 2003 edition of Table 1);

--- Remove the rough grinding part of the corresponding wheel model (see Table 1, 2003 edition of Table 1).

This standard uses the redrafted law to amend the use of ISO 6103:2014 "fixed abrasive wheel allowable unbalance measurement." this standard compared with ISO 6103:2014 in the structure only increased Chapter 2 "normative references", followed by the chapter number Delayed.

This standard and ISO 6103:2014 technical differences and the reasons are as follows.

--- The "reference" (ISO 603) adjusted to "normative references", with the corresponding Chinese standard GB/T 4127 instead, and at Chapter 1 "Scope" increase GB/T 4127 statement to standardize the size of the fixed abrasive;

--- Chapter 1 "Range" increased the weight of the single-wheeled grinding wheel requirements, because the weight of the wheel is too small when its unbalance exceeds the standard Specify the measurement limit of the device;

--- Will "this international standard does not apply --- diamond wheel and cubic boron nitride wheel or natural stone wheel --- --- Centerless grinding wheel, Polishing wheel and disc,

grinding ball grinding wheel and glass grinding wheel "to" This standard does not apply to the product standard balance test Other provisions of the wheel "to meet the actual situation in our country;

--- In Chapter 5 "Inspection of inherent imbalances" clause "balance shaft and support (guide bar and disc) should have the appropriate hardness and surface roughness to reduce friction "to" balance shaft contact with the grinding wheel and the support part of the hardness should not be less than 50HRC, the table Surface roughness maximum allowable value $Ra0.4\mu m$; balance shaft support (guide rod and disc) hardness should not be less than 50HRC, the maximum allowable surface roughness $Ra0.2\mu m$ ", to have operability;

--- In Table 6, Chapter 1 delete the corresponding portable grinder 6,11,35,36-type grinding wheel, the grinding wheel is not suitable for portable grinder;

Remove the portable grinder outside the other grinder 2,35,36-type grinding wheel, the grinding wheel according to GB/T 2485 regulations do not have to detect uneven Measure; In addition to meet the domestic production of grinding wheel technology to improve, in addition to precision grinding methods other than grinding k Value raised the requirement.

This standard is proposed by the China Machinery Industry Federation.

This standard by the National Abrasives Standardization Technical Committee (SAC/TC139) centralized.

This standard was drafted unit. Zhengzhou abrasive grinding Institute Co., Ltd., white pigeon Abrasives Co., Ltd., Zhuhai elephant abrasive Co., Ltd., Shenzhen City, two sand-deep Co., Ltd., Chengdu Wheel Co., Ltd.

1 Scope

This standard specifies the GB/T 4127 (all parts) in various models of the outer diameter greater than or equal to 125mm, and single weight greater than or equal to 80g, and maximum working speed greater than or equal to 16m/s Terms and definitions of delivery wheel unbalance, allowable unbalance value, inherently not Measurement of balance, check of inherent imbalance.

This standard applies to delivery conditions under the wheel.

This standard does not apply to product standards for balancing inspection otherwise provided by the wheel.

Note 1: The allowable maximum imbalance of a given grinding wheel is inherent to the grinding wheel itself and does not include the balance shaft or attachment of the grinding wheel to this shaft Some imbalances. A variety of similar devices, including chucks or chuck hubs, assume that they are balanced, uniform, and geometrically imperfect.

Note 2: The main impact of the imbalance.

- Spindle, machine tools and fixtures generate additional stress;
- Accelerate the wear and tear of bearings;
- Vibration generated by the processing quality and will increase the internal stress of the wheel;
- Increase the operator's fatigue.

2 Normative references

The following documents for the application of this document is essential. For dated references, only the dated version applies to this article Pieces. For undated references, the latest edition (including all amendments) applies to this document.

GB/T 4127 (all parts) Consolidation abrasive size [ISO 603 (all parts)]

3 Terms and definitions

The following terms and definitions apply to this document.

Unbalance

Eccentricity of the wheel and the quality of the product.

Note: The radius of the grinding wheel is expressed in millimeters, the mass in grams, and the unbalance in grams millimeters.

Inherent wheel imbalance intrinsicunbalanceofagrindingwheel U_i the mass of the grinding wheel, m_1 , and the center of mass of the grindstone, G (center of gravity), to the distance, e , between its center axis, O , is $U_i = m_1 \cdot e$ figure 1).