

ICS 67.040
CCS X14



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

GB/T 14614-2019

Replacing GB/T 14614-2006

**Inspection of grain and oils - Doughs rheological properties
determination of wheat flour - Farinograph test**

粮油检验 小麦粉面团流变学特性测试 粉质仪法

Issued on: May 10, 2019

Implemented on: December 1, 2019

**Issued by: State Administration for Market Regulation;
Standardization Administration of China**

Table of Contents

- 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 14614-2006 "Physical properties of wheat flour dough - Determination of water absorption and rheological properties". The main technical changes compared with GB/T 14614-2006 are as follows:

- Revised scope (see Chapter 1, Chapter 1 of the.2006 edition);
- Revised the normative reference document (see Chapter 2, Chapter 2 of the.2006 edition);
- Increased terms and definitions of silty curve, dough formation time, stability (stability time), weakening degree, and silty quality index (see 3.1, 3.4, 3.5, 3.6, 3.7);
- Revised the recommended standards in the "sample" (see Chapter 7, Chapter 7 of the.2006 edition);
- Revised the standard for the determination of the moisture content of wheat flour (see 8.1, 8.1 of the.2006 edition);
- Modified the "measurement step" process, the mechanical farinograph operation is listed as Appendix B (see Chapter 8, Appendix B,.2006 edition) Chapter 8);
- Removed the definition of "dough formation time", "stability (stability time)" and "weakness" in the "result representation", retaining its knot. The requirements expressed (see 9.2, 9.3, 9.4 of the.2006 edition);
- Added a description of the "Powder Quality Index" in the results representation (see Chapter 9);
- Modified the contents of "other feature values" (see Chapter 9,
- Added "precision" (see Chapter 10);
- Modified the "Description of the farinograph" (see Appendix A, Appendix A of the.2006

edition);

1 Scope

GB/T 14614-2019 is the Chinese national standard on inspection of grain and oils - doughs rheological properties determination of wheat flour - farinograph test, in the field of food technology. The /T suffix marks it as a recommended standard: it is not compulsory by itself, but it becomes binding as soon as a contract, a tender or a customer specification calls it up - which in practice is how most foreign buyers meet it. It was issued on 10 May 2019 by the State Administration for Market Regulation; Standardization Administration of China, and has been in force since 1 December 2019. Classification: ICS 67.040, CCS X14. This page is published from the official record of the standard held by the Chinese standards administration: the identification, the dates, the classification and the issuing body are taken from there. The clause text, the tables and the numeric limits are in the document itself, which is delivered complete in English translation.

This standard specifies the rheological properties of wheat flour dough. The terminology and definitions, principles, reagents, instruments, samples, and measurement steps of the farinograph method are specified. Results, precision, and test reports. This standard applies to the evaluation of the quality of wheat flour processed from wheat (*Triticum aestivum* L.) and other additives to wheat flour. Impact.

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.

GB 5009.3 National standard for food safety - Determination of moisture in foods

GB/T 5490 General rules for grain and oil inspection

GB/T 6379.2 Accuracy of measurement methods and results (accuracy and precision) Part 2. Determination of standard method of measurement Basic method of sex and reproducibility

GB/T 6682 Analytical laboratory water specifications and test methods

3 Terms and definitions

The following terms and definitions apply to this document.

3.1 Powder curve farinograph curve The curve measured by the farinograph.

3.2 Consistency In the farinograph, the resistance when the dough is stirred at a predetermined constant speed.

Note. It is expressed in the special unit

---fines meter unit (FU).

3.3 Wheat flour water absorption waterabsorptionofflour Under the operating conditions specified in this standard, when the maximum consistency of the dough reaches 500FU, the volume of water to be added is required.

Note. The number of milliliters of water to be added per 100g of wheat flour with a moisture content of 14% (mass fraction) is expressed in milliliters (mL).

3.4 Dough formation time doughdevelopmenttime The time from the point of addition of water to the point at which the silty curve begins to fall after reaching the maximum consistency. See Figure 1.

Note. In rare cases, two maximum values can be observed, and the second maximum is used to calculate the formation time in minutes (min).