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

GB/T 12087-2008

Replacing GB/T 12087-1989

**Starch -- Determination of moisture content -- Oven-drying
method**

淀粉水分测定 烘箱法

(English Translation)

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Foreword

This revised standard adopts ISO 1666:1996 "Determination of moisture content of starch --- oven Law" (in English). And ISO 1666.

Differences 1996 as follows.

--- Constant increase the drying box qualitative content (see 6.1);

--- Original Appendix A measurement result of moisture in wheat starch repeatability standard deviation $S_r = 0.97$ in error, instead $S_r = 0.097$.

This standard also made the following editorial changes.

--- The "this International Standard" by "this standard";

--- English instead of using decimal notation decimal notation ", ". ";

--- Remove the preamble to international standards;

--- The standard name "starch --- Determination of moisture content - Oven method" with "starch Moisture oven method." this standard is GB/T 12087-1989 "starch Determination of Water" amendments.

Compared with GB/T 12087-1989, this standard provides specific requirements on precision and test reports, seven types of common starch Repeatability and reproducibility were clear requirements; and an increase in Appendix A.

Appendix A of this standard is an informative annex.

The standard proposed by the National Food Authority.

This standard by the National Standardization Technical Committee OILS.

This standard was drafted. State Administration of Grain Science Institute.

1 Scope

This standard specifies under atmospheric conditions, the method of determination of moisture in the oven at 130 °C drying starch.

This standard applies to dry moisture determination of native starch and modified starch.

Moisture This standard does not apply to certain special starches, such as those containing volatile substances at 130 °C when starch.

2 Terms and definitions

The following terms and definitions apply to this standard.

Under this standard test conditions, the loss of quality of the sample, in order to represent the mass fraction.

Principle 3

The sample was placed inside a temperature of 130 °C ~ 133 °C thermostatic oven, at atmospheric pressure drying 90min, measuring the mass loss of the sample.

4 Instrument

The following common laboratory instruments and equipment.

4.1

Analysis of balance. a sense of the amount of 0.001g.

4.2

drying box. with starch under the test conditions are not affected by metal (such as aluminum) production, and have the right size cover. The effective surface energy the sample was evenly distributed when mass not exceeding 0.3g/cm². Suitable dimensions for the diameter of 55mm ~ 65mm, height 15mm ~ 30mm, wall Thickness of 0.5mm.

4.3

thermostatic oven. electric heater with proper air circulation device, capable of making the test sample ambient air temperature is maintained at a uniform in the range of 130 °C ~ 133 °C. The thermal power of the oven should be able to ensure that when the oven temperature to 131 °C, put the maximum number of samples later, Within 30min oven temperature rose to 131 °C, in order to ensure that all samples were dried at the same time.

4.4

dryer. Built-efficient desiccant drying box and make a rapid cooling of the thick porous separator.

5 Test sample

The test sample should not have any lumps, lumps, and should be mixed thoroughly after use. The sample should be placed in moisture-proof, airtight containers, the test sample After removal, the remaining samples should be stored in the same container, and then prepare for the next test.

6.1 Honghehengzhi

Take a clean air drying box, placed in 130 °C oven (4.3) in the drying 30min ~ 60min, remove the baking box placed in a desiccator (4.4) to cool down within Room temperature, remove the weighing; then bake 30min, repeated cooling to weigh no more than twice the difference between before and after the mass 0.005g, is constant quality (m_1 0).

6.2 Samples and bake box weighing

Weigh $5g \pm 0.25g$ sample and mix well, pour baking box constant quality after the sample is evenly distributed over the bottom surface of the box, the lid on the cover, immediately weighed and the total mass of the sample drying box (m_1). Throughout the process, should be minimized bake box in the air exposure time.

6.3 Determination

After weighing, the lid opens leans next to bake box, quickly filled with sample drying box cover and put in preheated to 130 °C thermostat Oven (4.3), the oven when the temperature returns to the start time 130 °C, 90min sample baked at 130 °C ~ 133 °C condition, and then take