

ICS 59.040
CCS B 45



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

GB/T 10288-2016

**[Including 2020XG1] Test method for down and feather
(English Translation)**

Issued on: December 30, 2016

Implemented on: July 1, 2017

**Issued by: General Administration of Quality Supervision, Inspection and
Quarantine of PRC**

Table of Contents

Foreword...	3
1 Scope...	5
2 Normative references...	5
3 Terms and definitions...	5
4 Sampling and specimen treatment...	6
5 Inspection...	8
6 Test report...	25

Foreword

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

This standard is a revision of GB/T 10288-2003 "Test method for down and feather".

Compared with GB/T 10288-2003, the main changes of this standard are as follows.

- MODIFY the "Terms and definitions";
- Standard atmospheric environmental conditions are implemented in accordance with the GB/T 6529-2008 standard; MODIFY the tolerance range of relative humidity from $\pm 2.0\%$ to $\pm 4.0\%$;
- ADJUST the "sampling quantity" and the number of specimens, which are required for some inspection items;
- In the component analysis, ADD the inspection of "quill feather";
- In the type identification of goose and duck down, ADD a secondary classification rule for the down and feather that cannot be distinguished;
- CHANGE the pre-treatment method for filling power test into "steam reduction method". The filling power test adopts the filling power tester, which is specified by the test rules of International Down and Feather Bureau (IDFB). ADD an inverting barrel, as the down filling device;

- ADJUST the inspection of "turbidity", which is divided into method A (visual inspection method) and method B (special turbidity detector method);
- In the inspection of "fat and oil content", MODIFY the requirement for the number of refluxes; CANCEL the use of the rotary evaporator;
- ADD the requirements for inspectors in the "odor" inspection; MODIFY the result judgment;
- ADD the inspection of "acidity (pH value)";
- In the inspection of "moisture content", ADD the calculation formula of "moisture regain"; CLARIFY the requirements for packaging containers;
- Except for "turbidity", all test results are kept to one decimal place;
- ADD the content of the test report;
- DELETE the contents of Appendix A (microbiological testing methods);

This standard was proposed by the China National Light Industry Council.

This standard shall be under the jurisdiction of the National Leather Industry Standardization Technical Committee (SAC/TC 252).

Drafting organizations of this standard. China Chamber of Commerce for Foodstuffs, Native Produce and Livestock Import and Export, Liuqiao Group Co., Ltd., Bosideng Down Garment Co., Ltd., Anhui Hongrun (Group) Co., Ltd., Guqi Down Co., Ltd., Guangzhou Fiber Products Inspection and Research Institute, Anhui Xia Zhen Down Co., Ltd., China Down Industry Association.

1 Scope

This standard specifies the terms and definitions, sampling and specimen treatment, inspection and test reports of down and feather inspection,.

This standard applies to the inspection of down and feathers and the filling materials of their products.

2 Normative references

The following documents are essential to the application of this document. For the dated documents, only the versions with the dates indicated are applicable

to this document; for the undated documents, only the latest version (including all the amendments) is applicable to this standard.

GB/T 601 Chemical reagent - Preparations of standard volumetric solutions

GB/T 6529 Textiles - Standard atmospheres for conditioning and testing

GB/T 6682 Water for analytical laboratory use - Specification and test methods

3 Terms and definitions

The terms and definitions as defined in GB/T 17685, as well as the following terms and definitions, apply to this document.

3.1

Moisture content

The percentage of water content in down and feathers TO the original weight of down and feathers.

3.2

Moisture regain

The percentage of the moisture content in down and feathers TO the absolute dry weight of down and feathers.

4.1 Sampling method

One of the following methods can be selected to take specimen. The specimen shall be representative.

4.2 Number of samples

The sampling quantity of bulk goods (including down and feather packaging and down and feather product packaging) shall meet the requirements in Table 1.

4.3.1 Sampling method for down and feather. Samples are taken respectively from the upper, middle, lower parts of a single package.

4.4 Test atmospheric conditions and sample balance

Component analysis, type identification, filling power test shall be carried out, under constant temperature and humidity conditions. The atmospheric conditions, which are used for the test, shall be carried out in accordance with the provisions of GB/T 6529. The samples shall be balanced for 24 hours and above. Other inspection items can be carried out, at room temperature OR under actual conditions.

4.5.1 Instruments and equipment

Mixing tank, length (150 cm ~ 200 cm) x width (80 cm ~ 100 cm), depth (20 cm ~ 30 cm), height from the bottom to the ground (55 cm ~ 65 cm). It is made of antistatic materials, such as wood or stainless steel.

4.5.3 The number of specimens required for each inspection item

The number of specimens, which are required for each inspection item, shall meet the requirements in Table 2.

5.1.4.1 Operation method of preliminary sorting

Place the test specimen and seven beakers in the sorting box. Use tweezers to pick out all kinds of feathers. Then use thumb and index finger, to flick the feather, to remove other attached components. Respectively place the seven components of complete waterfowl feathers, waterfowl damaged feather, landfowl feather (including landfowl damaged feather and landfowl feather fiber), long feather, quill feather, a mixture of down/down fiber/feather fiber, residues, etc., in different containers.

5.1.4.2 Calculation of preliminary sorting

After sorting, weigh and record the mass of the contents in each container, accurate to 0.0001 g.