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

GB/T 5536-2025

Replacing GB/T 5536-1985

**Inspection of vegetable oils - Methods for determination of
melting point**

植物油脂检验 熔点测定法

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Foreword

This document complies with the provisions of GB/T 1.1-2020 "Standardization Work Guidelines Part

1. Structure and Drafting Rules of Standardization Documents". Drafting. This document replaces GB/T 5536-1985 "Test Method for Melting Point of Vegetable Oils". Compared with GB/T 5536-1985, except for the structure... Aside from adjustments and editorial changes, the main technical changes are as follows:

---A "scope" has been added (see Chapter 1);

---A definition of melting point has been added (see 3.1);

---Added "Principles" (see Chapter 4);

---The glass capillary tube was modified (see 5.1, 1.1 in the 1985 edition);

---A "measuring ruler" has been added (see 5.2);

---The temperature requirements for refrigerators have been changed (see 5.4, 1.3 of the 1985 edition);

---The mercury thermometer was modified (see 5.5, 1.2 of the 1985 edition);

---The thermostatic water bath was modified (see 5.7, 1.3 of the 1985 edition);

1 Scope

GB/T 5536-2025 is the Chinese national standard covering the melting point of a fat - the slip point in an open capillary and the conditioning before it, on a material that does not melt at a single temperature but over a range, which is why the procedure has to be

followed exactly for the number to mean anything. It replaces GB/T 5536-1985, a standard forty years old. In force from 1 May 2026. Issued on 31 October 2025, it has been in force since 1 May 2026, replacing GB/T 5536-1985.

This document describes a method for determining the melting point of vegetable oils. This document applies to the determination of the melting point of vegetable oils.

2 Normative references

The contents of the following documents, through normative references within the text, constitute essential provisions of this document. Dated citations are not included. For references to documents, only the version corresponding to that date applies to this document; for undated references, the latest version (including all amendments) applies. This document.

GB/T 15687 Preparation of animal and vegetable oil samples

3 Terms and Definitions

The following terms and definitions apply to this document.

3.1 melting point The temperature at which grease completely melts from a solid state into a liquid state.

4.Principles Under specified conditions, a section of solidified fat column is prepared at one end of a glass capillary tube, immersed in water to a certain depth, and then subjected to a specified flow rate. Heat the sample in the glass capillary until it becomes a completely transparent liquid; this temperature is the melting point.

5 Instruments and Equipment

5.1 Glass capillary. open at both ends, inner diameter $1.0\text{mm}\pm 0.1\text{mm}$, maximum outer diameter 2.0mm, length 80mm.

5.2 Measuring ruler. 10cm range, 1mm division.

5.3 Alcohol torch.

5.4 Refrigerator. The temperature can be controlled between 4°C and 10°C .

5.5 Mercury Thermometer. Select a thermometer with an appropriate range, such as a temperature range of $0^{\circ}\text{C}\sim 50^{\circ}\text{C}$ or $50^{\circ}\text{C}\sim 100^{\circ}\text{C}$, with a scale division value of [value missing]. 0.1°C , with an accuracy of $\pm 0.1^{\circ}\text{C}$, or a thermometer of equivalent accuracy.

5.6 Glass beaker. 500mL capacity.

5.7 Constant temperature water bath. The temperature can be controlled from room temperature to 100°C , with a temperature control accuracy of $\pm 0.5^{\circ}\text{C}$.

5.8 Standard laboratory glassware. conical flasks, funnels, filter paper, centrifuge tubes, etc.

6.Sampling The samples received by the laboratory should be representative and undamaged or deteriorated during transportation and storage.

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