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YC

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

YC/T 165-2003

**Tobacco. Determination of water content. Karl Fischer method
(English Translation)**

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Foreword

This standard is modified to ISO 6488-1:1997 "Tobacco - Determination of Moisture - Part 1. Karl Fischer Method" (English version).

This standard was redrafted in accordance with ISO 6488-1:1997.

Taking into account China's national conditions, this standard was revised when adopting international standards. These technical differences are identified by vertical single lines in them the margins of the terms involved. A list of technical differences and their causes is given in Appendix A for reference.

For ease of use, the following editorial changes have been made to ISO 6488-1:1997.

--- Change "ISO 4874:1981", "ISO 5725-2:1994" to "YC/T 5" and "GB/T 6379";

--- Remove the preface to ISO 6488-1:1997.

Appendix A of this standard is an informative annex.

This standard was proposed by the State Tobacco Monopoly Bureau.

This standard is under the jurisdiction of the National Tobacco Standardization Technical Committee (TC144).

This standard was drafted. China Tobacco Standardization Research Center.

1 Scope

This standard specifies the Karl Fischer method for the determination of moisture in cigarettes without conventional cigarettes.

This standard applies to cigarettes without added cigarettes.

2 Normative references

The terms in the following documents become the terms of this standard by reference to this standard. All dated references, followed by all Modifications (not including errata content) or revisions do not apply to this standard, however, parties to agreements based on this standard are encouraged to study if it is possible to use the latest version of these files? For undated references, the latest edition applies to this standard.

YC/T 5 General Principles for Batch Sampling of Tobacco YC/T 31-1996 Preparation of tobacco and tobacco product samples and moisture determination oven method

3 Terms and definitions

The following terms and definitions apply to this standard.

The moisture content of tobacco extracted with anhydrous methanol.

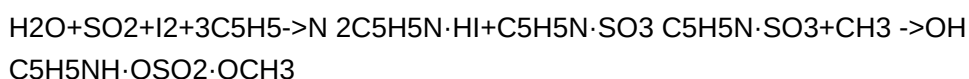
Tobacco that has not been scented or diluted.

4 Principle

Add anhydrous methanol to the tobacco sample and extract, remove the extract in the reaction flask, titrate with Karl Fischer reagent and calculate the sample moisture.

content.

The Karl Fischer reagent (a solution consisting of iodine, sulfur dioxide, pyridine and methanol) can react quantitatively with the water in the sample. The reaction formula is as follows.



5 Reagents

With analytical grade reagents, the water should be distilled water or water of equivalent purity.

5.1

Karl Fischer reagent. The titer is about 2mg/mL ~ 5mg/mL.

5.2

Methanol. Analytically pure, the water content is less than 0.05% by mass fraction.

5.3

Active silica gel. used as a filling desiccant.

6 Instruments

The glassware used should be heated at $(105 \pm 5) ^\circ\text{C}$ for at least 1 h and placed in a closed desiccator for cooling.

6.1

Karl Fischer Moisture Analyzer. consists of 6.1.1 to 6.1.5.

6.1.1

End point electricity measuring device.

6.1.2

Platinum electrode.