

ICS 65.160
CCS X 85

YC

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

YC/T 169.4-2002

Replacing YC/T 169.4-2002

**Determination of physical and chemical characteristics of tow
for cigarette. Part 4: Crimp index and percentage of crimp
recovery**

(English Translation)

Issued on: March 30, 2009

Implemented on: May 1, 2009

Issued by: State Tobacco Monopoly Administration

Table of Contents

- Foreword
- 1 Scope
- 2 Normative references
- 4 Instruments and equipment
- 5 Sampling
- 6 Measuring step

Foreword

YC/T 169 "cigarette tow physical and chemical properties of determination" is divided into 12 parts.

- Part 1. tow linear density;
- Part 2. Single yarn density;
- Part 3. number of crimps;
- Part 4. tow crimp index and the crimp tow elastic recovery;
- Part 5. breaking strength;
- Part 6. cross-sectional shape and radial shaped degree;
- Part 7. Regain;
- Part 8. moisture content;
- Part 9. oil content;
- Part 10. residual acetone content;
- Part 11. Titanium dioxide content;
- Part 12. Packaging and appearance.

This section YC/T Part 4 169.

This Part replaces YC/T 169.4-2002 "tow for cigarette was measured series of standards - Part 4. tow crimp index and the crimp tow bomb Recovery factor. " this section compared with YC/T 169.4-2002 main changes are as follows.

--- The name of this section by the "tow for cigarette was measured series of standards - Part 4. tow crimp index and the crimp tow elastic recovery rate" Changed to "cigarette tow

measured physical and chemical properties - Part 4. tow crimp index and the crimp tow elastic recovery rate";

--- "Normative references" to remove the GB/T 6529 "textiles conditioning and testing using standard atmosphere," adds GB/T 16447 "regulate tobacco and tobacco products and testing atmosphere";

--- Instrument, apparatus adds timing device;

--- Modified atmospheric conditions adjustment and testing requirements;

--- Measurement report adds two things. "the provisions of this part of the step of determining the difference" and "observed abnormal test phenomenon".

This part by the State Tobacco Monopoly Bureau.

This part of the National Standardization Technical Committee of tobacco smokable material Technical Committee (SAC/TC144/SC8) centralized.

This section drafted by. China National Tobacco Quality Supervision and Inspection Center, Asia Technology Limited.

1 Scope

YC/T of the provisions of the section 169 determination of smoke curled elastic recovery of tow crimp index and tow.

This section applies to tobacco polypropylene fiber tow.

2 Normative references

The following documents contain provisions which, through reference YC/T 169 of this text, constitute provisions of this section. For dated reference documents Member, all subsequent amendments (not including errata content) or revisions do not apply to this section, however, encouraged to reach under this section Parties to research agreement to use the latest versions of these documents. For undated reference documents, the latest versions apply to this section.

GB/T 16447 Tobacco and tobacco products for conditioning and testing atmospheres (GB/T 16447-2004, ISO 3402:1999, IDT) Principle 3 Undamaged tow crimp section, a light load at a certain tension, the length was measured; and under certain heavy tension, the length was measured. Crimp index ratio represents the amount of their initial length of the stretch to heavy action under tow; after applying to heavy-duty tow volume Curvature retention represents crimp elastic recovery.

4 Instruments and equipment

4.1

Sample holder. for holding the specimen, neither specimen slide holder process, to also not damaged. It is divided into two samples folders. two samples Sandwiched between the initial distance $250\text{mm} \pm 0.5\text{mm}$, wherein the sample holder is fixed, movable under the specimen holder; clamping surface of the specimen holder and the clip Sample should be in the same plane, and the lower the quality of the sample specimen holder shall meet the heavy duty stretch desired, can be converted to small sample light load folder.

Light, heavy-duty requirements. a light load of $1.47\text{N} \pm 0.04\text{N}$, heavy load of $39\text{N} \pm 1\text{N}$.

4.2

scale. the elongation of the sample for recording, minimum scale value 0.5mm , the accuracy of $\pm 0.05\text{mm}$.

4.3

control. with constant speed under the control of the specimen holder moves up and down.

4.4

Timing Device. accuracy $\pm 1\text{s}$.

5 Sampling

From laboratory samples randomly intercepted curl undamaged tow length 400mm of five sections.

6 Measuring step

6.1

Before the test, according to GB/T 16447 samples were adjusted to regulate the more than 12h, and tested under the appropriate environmental conditions.

6.2

power, preheating 15min.

6.3

The distance between the upper and lower specimen holder is adjusted to $250.0\text{mm} \pm 0.5\text{mm}$.

6.4

The end of the tow held on the sample holder, the light load is applied at the other end, and then the next specimen holder clamping tow.

6.5

start control apparatus, so that the next sample holder uniform decline. Heavy Duty 2min applied elongation L1 recording samples, accurate to 0.5mm.