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

FZ/T 10016-2020

Replacing FZ/T 10016-2011

**Test method of polyacrylic acid starch for textile warp sizing.
Determination of non-volatile content**

纺织经纱上浆用聚丙烯酸类浆料试验方法 不挥发物含量测定

(English Translation)

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Foreword

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

This standard replaces FZ/T 10016-2011 "Test Method for Polyacrylic Sizing Size for Textile Sizing Non-volatile Content Determination". versus Compared with FZ/T 10016-2011, the main technical changes are as follows.

---The standard name is adjusted to "Test method for non-volatile content of polyacrylic acid sizing agent for textile warp sizing";

---Adjusted the standard range;

---Added the contents of the operating procedures (see 5.2~5.6);

---Added the result display (see 6.2);

---Added Appendix A (informative appendix).

This standard was proposed by the China National Textile and Apparel Council.

This standard is under the jurisdiction of the Cotton Textile Branch of the National Textile Standardization Technical Committee (SAC/TC209/SC10).

Drafting organizations of this standard. Shanghai Xinqili Auxiliary Technology Co., Ltd., Shanghai Textile Industry Technology Supervision Institute, Dajiali (Taicang) Quality Technical Testing Center Co., Ltd., Hubei Jiate New Material Co., Ltd., Kunshan Mingjia Auxiliary Co., Ltd., China Cotton Textile Industry Association.

1 Scope

This standard specifies the test method for determining the non-volatile content of polyacrylic acid sizing agent used for sizing textile warp yarns.

This standard applies to polyacrylic acid sizing agents for textile warp sizing.

Note: In the actual production of the enterprise, the rapid determination method can be carried out with reference to Appendix A, and the test results are only for production reference.

2 Normative references

The following documents are indispensable for the application of this document. For dated reference documents, only the dated version applies to this article Pieces. For undated reference documents, the latest version (including all amendments) is applicable to this document.

GB/T 8170 Numerical rounding rules and the expression and determination of limit values

3 Principle

Polyacrylic acid sizing sample for textile warp sizing, heat it at a specified temperature to remove volatiles until it is dried. After drying, the quality is dry.

The percentage of the mass before drying indicates the non-volatile content.

4 Equipment and utensils

4.1

Balance. The weighing range is more than 100g, and the division value is 0.0001g.

4.2

Electric heating constant temperature oven. The test temperature is $105^{\circ}\text{C} \pm 2^{\circ}\text{C}$.

4.3

Glass dryer.

4.4

Weighing bottle. a flat weighing bottle with a cap of 50mm in diameter.

5 Operating procedures

5.1

Set the temperature of the electric thermostatic oven to 105°C , turn on the power supply, and make the temperature evenly rise to the set temperature ($105^{\circ}\text{C} \pm 2^{\circ}\text{C}$).

5.2

Place the washed and dried weighing bottle (with lid) in an electric heating constant temperature oven to dry, constant weight (the weighing deviation after two dryings is $\pm 0.0003\text{g}$ Within the range), take it out and put it in a desiccator to cool to room temperature.

5.3

Weigh the mass of the weighing bottle (with lid) to the nearest 0.0001g.

5.4

Weighing bottle (with lid) quickly weigh $3\text{g} \pm 0.5\text{g}$ sample, accurate to 0.0001g, so that the sample is evenly spread on the bottom of the weighing bottle.

5.5

Place the weighing bottle (with lid) in the middle of an electric thermostatic oven with a constant temperature of $105^{\circ}\text{C} \pm 2^{\circ}\text{C}$, open the lid and place the lid against the weighing bottle. Next, dry at $105^{\circ}\text{C} \pm 2^{\circ}\text{C}$, constant weight (weighing deviation after two dryings is within $\pm 0.0003\text{g}$ range).

5.6

Cover the bottle cap, take out the weighing bottle, quickly put it in a desiccator and cool it to room temperature and then quickly weigh it (accurate to 0.0001g).

5.7

Repeat 5.4 to 5.6, and perform parallel tests on the same sample.