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

FZ/T 54009-2012

Replacing FZ/T 54009-1999

**Polypropylene drawn textured yarns
(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 54009-1999 "Polypropylene stretch yarn".

This standard is a revision of FZ/T 54009-1999. Compared with the original standard, except for editorial changes, the main technical changes are as follows.

--- Expanded the scope of application of the standard (see Chapter 1, Chapter 1 of the 1999 edition);

--- Added product classification and identification (see Chapter 4);

---The product grade is changed from the original superior product, first-class product, second-class product, third-class product, four grades to superior products, first-class products, and qualified products.

Level (see Chapter 5, Chapter 4 of the 1999 edition);

--- According to the three levels of settings, the corresponding level indicators have been modified (see Chapter 5, Chapter 4 of the 1999 edition);

--- Adjust the linear density deviation rate, breaking strength, elongation at break, and wire quality index (see Chapter 5, Chapter 4 of the 1999 edition);

--- Increase the oil content requirements, determined by the supply and demand sides (see Chapter 5);

--- Appearance indicators shall be changed by the implementation of Table 2 to be determined by the supplier and the purchaser or by Appendix A (see Chapter 5, 1999 Edition).

Chapter 4).

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

This standard is under the jurisdiction of Shanghai Textile Industry Technical Supervision.

This standard was drafted. Changzhou Guoxing Special Chemical Fiber Co., Ltd., China Chemical Fiber Industry Association, Shanghai Textile Industry Technology Supervision Supervisor.

1 Scope

This standard specifies the terms and definitions, classification and identification of polypropylene elastic yarn, technical requirements, test methods, inspection rules, signs, packaging, Shipping and storage requirements.

This standard is applicable to the bus density of 33dtex~333dtex, circular cross section, bright, semi-dull, full extinction, Natural and colored polypropylene stretch yarns, other types of polypropylene stretch yarn can be used as reference.

2 Normative references

The following documents are indispensable for the application of this document. For dated references, only dated versions apply to this article.

Pieces. For undated references, the latest edition (including all amendments) applies to this document.

GB/T 250 Textile color fastness test for gray color card for color change GB/T 2828.1-2003 - Sampling procedures for sampling by sampling - Part 1 . Batch-to-batch inspections by Retrieving Quality of Acceptance (AQL) plan Textiles and textiles - Performance and test terms - Part 1. Fibers and yarns GB/T 3291.3 Textiles and textile materials - Performance and test terms - Part 3 GB/T 4146.1 Textile chemical fiber - Part 1. Generic name GB/T 4146.3 Textile chemical fibres - Part 3. Test terms GB/T 6502 chemical fiber filament sampling method GB/T 6503 chemical fiber moisture regain test method GB/T 6504 chemical fiber oil content test method GB/T 8170 Numerical Rounding Rules and Representation and Determination of Limit Values GB/T 14343 chemical fiber filament density test method GB/T 14344 Test method for tensile properties of chemical fiber filaments

3 Terms and definitions

The following terms and definitions as defined in GB/T 3291.1, GB/T 3291.3, GB/T 4146.1 and GB/T 4146.3 apply to this document.

Shaped

The shape of the wire twist, the clarity of the pattern, whether it can be smoothly unwound, and whether the weight is in compliance with the regulations.

Chromatic aberration colordifference the inner, middle and outer silk layers of the wire itself and the strands and color in a package are different or the strands and the color in the silk are different.

The twisted color silk is yellowed.

Unconstrained crimpunevenness in the process of processing, due to poor untwisting, the local non-bulked tight strands or the local twisted strands are insufficient.

Bamboo silk bambooknoppedfilament the strands are tightly twisted, and the twists are concentrated every 2 cm to 5 cm along the length of the textured yarn to form tight details or tight points.

Single stranded silkstrandfilament the sericin is sandwiched by a strand or a layer of silk which is left as a result of a strand break in the process.

Multiple silks excessivefilaments Since the drafting drum is a double-twisted yarn for false twisting or a tow that is entrained into the adjacent spindle when twisted, the linear density of the strand is significantly thicker.

The silk layer or the entire filament is twisted.

4 Classification and identification

4.1

According to the content of titanium dioxide, the product can be divided into light wire, semi-dull wire and full extinction wire.

4.2

Product specifications are expressed in terms of bus density (dtex) and number of filaments (f).

Example. A polypropylene fiber with a bus density of 83 dtex and a number of filaments of 72, and its product specification is 83 dtex/72f.

4.3

Product models are identified by product specifications.

Example. 83dtex/72f polypropylene stretch yarn.

5.1 Product Classification

The polypropylene stretch yarn products are divided into three grades. superior grade, first grade, and qualified grade, and the lower grade is lower than the qualified one.

5.2 Physical performance indicators

See Table 1.

Table 1 Physical properties of polypropylene elastic yarn

No.	Item	Excellent	Item	First Class	Qualified	Product
1	Linear density deviation rate /%	± 3.0		± 4.0		± 5.0
2	Linear density coefficient of variation (CVb) /%	≤ 3.00	4.50	5.50	3	breaking strength/(cN/dtex)
	Natural color	≥ 3.50	3.20	3.00	Colored	≥ 3.20
	3	2.80	3.00	2.80	4	coefficient of variation of breaking strength (CVb) /%
		≤ 7.00	12.00	13.50		
5	Elongation at break /%	$M \pm 3.0$	$M \pm 6.0$	$M \pm 8.0$	6	elongation at break coefficient of variation (CVb) /%
		≤ 12.00	20.00	22.00		

7 Tightening elongation /%

6 Test methods

6.1 Physical property and dyeing performance index test

6.1.1 The linear density test shall be carried out in accordance with the provisions of GB/T 14343.